#### THE BUSINESS VALUE OF AGILE SOFTWARE METHODS

IONG ROI WITH JUST-IN-TIME PROCESSES



Dr. Hasan H. Sayani Dr. Saya Sone

## **Business Value of Agile Software Methods**

# Maximizing ROI with Just-in-Time Processes and Documentation

by Dr. David F. Rico, Dr. Hasan H. Sayani, and Dr. Saya Sone

Hardcover: 6 x 9 in., 224 Pages ISBN: 1604270314 Date: October 2009

Amazon (\$49.95): <u>http://www.amazon.com/dp/1604270314</u> J. Ross (\$44.95): <u>http://www.jrosspub.com/Engine/Shopping/catalog.asp?item=14200</u>

#### About the Book

The Business Value of Agile Software Methods is a comprehensive methodology for quantifying the costs and benefits of using agile methods to create innovative software products. Using cost of quality, total cost of ownership, and total life cycle costs, the authors estimate return on investment and net present value of agile methods. For the first time, the use of advanced measures such as real options is utterly simplified. This book disarms explosive issues related to the adoption of agile methods. It provides a broad survey of cost and benefit data from an analysis of hundreds of projects. It then introduces the industry's first top-down parametric models for estimating the costs and benefits of agile methods. Furthermore, it contains numerous examples on how to estimate the costs and benefits of the major types of agile methods such as Scrum and Extreme Programming, among others.

#### Key Features

- Identifies the major types and kinds of agile methods, along with the major forms of best practices, as a pretext for mixing and matching them to create super-hybrid methodologies.
- Introduces a complete family of metrics and models specially designed for agile methods, rather than saddling projects with traditional industrial-age manufacturing-era measures.
- Provides one of the first and only comprehensive compilations of the costs and benefits of agile methods from an analysis of hundreds of studies of real-world software projects.
- Presents a comprehensive suite of top-down metrics, models, and measurements for estimating the costs, benefits, return on investment, and net present value of agile methods.
- Illustrates the first simple-to-use parametric models of real options for estimating the business value of agile methods since the inception of the Nobel-prize winning Black-Scholes formulas.

#### Web Value Added

WAV Offers free downloadable ROI spreadsheet models for Scrum, Extreme Programming, Pair Programming, Test-Driven Development, and Agile Methods (with detailed metrics, models, measurements on the costs, benefits, benefit/cost ratio, breakeven point, net present value, return on investment, and real options of agile methods).

• Agile Methods Policies & Procedures: A complete set of project management templates for use with agile methods based on Extreme Programming's Release Planning Methodology (designed to extinguish the myth that agile methods do not have any software engineering documentation discipline). These are designed as a starter kit to illustrate some of the salient concepts, ideas, and notional documents behind the Extreme Programming Release Planning Methodology (used by XP and Scrum projects). They are also designed to help teams get started with a project based on agile methods. Whether the project is based on Extreme Programming or Scrum, these templates are an excellent tool for training, familiarization, and actual project execution. This kit contains one of the most comprehensive compilations of references to automated workflow tools specially designed for agile methods. Furthermore, there are key references to over 15 comprehensive training briefs with hundreds of slides on agile methods, Extreme Programming, and Scrum. There are even templates to document the project scope along with templates for user stories, metaphors, release plans, iteration plans, development tasks, and tests (and forms for evaluating team members, customer satisfaction, and lessons learned).

# **AGILE METHODS POLICIES & PROCEDURES (AGILE-DEV)**

Based on Extreme Programming (XP) & Test Driven Development (TDD)

Week	Dates	Description	Deliverables				
1	9/10 - 9/14		<ul> <li>Agile workflow tools</li> <li>Agile training briefs</li> <li>Agile references</li> <li>Project team</li> <li>Project charter</li> <li>Project scope</li> </ul>				
2	9/15 - 9/21	Project Initiation					
3	9/22 - 9/28		<ul><li>User stories</li><li>System metaphor</li><li>Release plan</li></ul>				
4	9/29 - 10/5		<ul><li> Development tasks</li><li> Iteration plan</li></ul>				
5	10/6 - 10/12	Project Iteration 1	<ul> <li>Unit tests</li> <li>Acceptance tests</li> <li>Peer evaluation</li> <li>Customer satisfaction</li> <li>Lessons learned</li> </ul>				
6	10/13 - 10/19						
7	10/20 - 10/26		Project teration 2• Development tasks • Iteration plan • Unit tests • Acceptance tests • Peer evaluation • Customer satisfaction 				
8	10/27 - 11/2	Project Iteration 2					
9	11/3 - 11/9						
10	11/10 - 11/16		<ul><li> Development tasks</li><li> Iteration plan</li></ul>				
11	11/17 - 11/23	Project Iteration 3	<ul><li>Unit tests</li><li>Acceptance tests</li><li>Peer evaluation</li></ul>				
12	11/24 - 11/30		<ul><li>Customer satisfaction</li><li>Lessons learned</li></ul>				
13	12/1 - 12/7	Project Closeout	• Final presentation				

### FORM 1.1 – AGILE METHODS WORKFLOW TOOLS AGILE METHODS V1.0, STAGE 1 - PROJECT INITIATION

No.	Reference	Description	Туре		
1	[ <u>Agile Team</u> ]	A commercial planning, tracking and reporting tool for small teams. http://www.versionone.com/products_V1Team_Overview.asp	XP, Scrum		
2	[Agile Enterprise]	A commercial planning, tracking and reporting tool for multiple teams. http://www.versionone.com/products_V1Enterprise_Overview.asp	XP, Scrum, DSDM, AUP		
3	[ <u>Scope Manager</u> ]	A commercial process management tool for Extreme Programming <u>http://www.selectbusinesssolutions.com/products/select-scope-manager.htm</u>	ХР		
4	[ <u>XP Plan It</u> ]	An Internet, host-based tool to help distributed teams to XP planning. <u>http://www.itwks.com/products/xp-planit.html</u>	ХР		
5	[ <u>Iterate</u> ]	A commercial tool that automates Story Cards and XP planning. http://www.diamond-sky.com/products/iterate	ХР		
6	[ <u>XP Tracker</u> ]	A plug-in for TWiki for tracking multiple XP projects. http://twiki.org/cgi-bin/view/Plugins/XpTrackerPlugin	ХР		
7	[ <u>XP CGI</u> ]	An open source story card automation tool for Extreme Programming. <u>http://xpcgi.sourceforge.net</u>	ХР		
8	[ <u>XP Web</u> ]	An open source PHP and MySQL tool for managing XP projects. http://xpweb.sourceforge.net	ХР		
9	[ <u>XPlanner</u> ]	An open source tool for planning and tracking XP and Scrum projects. http://www.xplanner.org	XP, Scrum		
10	[ <u>ScrumWorks</u> ]	A commercial tool for automating Scrum lifecycle management. http://danube.com/scrumworks	Scrum		
11	[Project Cards]	A commercial tool for automating management of Agile projects. http://www.projectcards.com	XP, Scrum, Lean		
12	[Target Process]	A commercial tool for planning, tracking and quality assurance. http://www.targetprocess.com	XP, Scrum		
13	[ <u>Extreme Planner</u> ]	A commercial workflow automation tool for XP and Scrum. http://www.extremeplanner.com	XP, Scrum		
14	[ <u>Community</u> ]	A commercial workflow automation tool for small teams. http://www.rallydev.com/products/editions/community	XP, Scrum		
15	[ <u>Enterprise</u> ]	A commercial workflow automation tool for multiple teams. http://www.rallydev.com/products/editions/enterprise	XP, Scrum		
16	[ <u>Mingle</u> ]	A commercial workflow automation tool for XP and Scrum projects. http://studios.thoughtworks.com/mingle-project-intelligence	XP, Scrum		
17	[ <u>VSTS</u> ]	An open source tool for Scrum workflow automation. http://www.codeplex.com/VSTSScrum	Scrum		
18	[ <u>Story Studio]</u>	A free project management tool for managing XP projects. http://www.xpstorystudio.com	ХР		
19	[ <mark>Agilo</mark> ]	A commercial project management tool for Scrum projects. http://www.agile42.com/cms/pages/products	Scrum		
20	[Ice Scrum]	An open source workflow automation tool for Scrum projects. http://icescrum.org	Scrum		
21	[ <u>Team System</u> ]	A commercial tool for automating project management of Scrum. http://www.scrumforteamsystem.com	Scrum		

## FORM 1.2 - AGILE TRAINING BRIEFS

No.	Reference	Description	Туре
1	[ <u>Rico08</u> ]	A Short Intro to Agile Methods (by David F. Rico) http://davidfrico.com/rico08c.pdf	Agile
2	[ <u>Boehm04</u> ]	Agile Methods (by Barry Boehm) http://sunset.usc.edu/classes/cs577b_2004/coursenotes/ec/charts/ec-21.ppt	Agile
3	[ <mark>Subramaniam06</mark> ]	Agile Methodologies (by Venkat Subramaniam) http://www2.cs.uh.edu/~svenkat/ooad/slides/AgileMethodologies.ppt	Agile
4	[ <u>Mercer07</u> ]	Agile Software Development: Practices through Values (by Rick Mercer) <u>http://www.cs.arizona.edu/classes/cs335/fall07/presentations/16-</u> <u>Agile07FinalProject.ppt</u>	Agile
5	[ <u>Ardis02</u> ]	Agile Methods and Extreme Programming (by Mark Ardis) http://www.rose-hulman.edu/Users/faculty/rickert/Class/se/cs414/Lectures/CS414- 021219agile.ppt	Agile & XP
6	[ <u>Auer99</u> ]	An Introduction to Extreme Programming (by Ken Auer) http://people.engr.ncsu.edu/efg/517/f99/syllabus/lectures/XPIntro.ppt	ХР
7	[ <u>Rivadeneira04</u> ]	Introduction to Extreme Programming (by Randell Rivadeneira) http://swiki.cs.colorado.edu:3232/dlc-2004/uploads/154/all_slides.ppt	ХР
8	[ <u>Klawitter01</u> ]	Extreme Programming (by Dan Klawitter) http://classes.seattleu.edu/computer_science/csse514/klawitter/lectures/XPOvervie w.ppt	ХР
9	[Godfrey02]	Extreme Programming (by Mike Godfrey) http://plg.uwaterloo.ca/~migod/246/lectures/13-ExtremeProgramming.ppt	ХР
10	[Mercer03]	Extreme Programming (by Rick Mercer) http://www.cs.arizona.edu/classes/cs335/fall03/presentations/ExtremeProgrammin g.ppt	ХР
11	[Hodgetts04]	Extreme Programming (by Paul Hodgetts) http://www.uces.csulb.edu/SPIN/media/ppslide/ExtremeProgramming.ppt	ХР
12	[ <u>Pamnany07]</u>	Extreme Programming (by Kiran Pamnany) http://www.cs.brown.edu/courses/csci1610/notes/xp.ppt	ХР
13	[Pressman09]	Agile Development (by Roger Pressman) http://www.cs.montana.edu/courses/351/currentLectures/Chapter_03_MSU.pdf	XP & Scrum
14	[ <u>Neerudu02]</u>	Scrum: A Pattern Language for Software Development (by S. Neerudu) http://www.ecs.syr.edu/faculty/fawcett/handouts/CSE784/Lecture5/SCRUM%20D esign%20Pattern.ppt	Scrum
15	[ <u>Paliwal02</u> ]	Scrum (by Aabhas Paliwal) http://www.utdallas.edu/~kcooper/teaching/6354/6354spring06/adapted_SCRUM. ppt	Scrum
16	[ <u>Mikneus03]</u>	Scrum: An Agile Software Development Methodology (by Scott Mikneus) http://facweb.cti.depaul.edu/jnowotarski/se470/akinde- mikneus%20pres%20scrum.ppt	Scrum

## FORM 1.3 - AGILE REFERENCES

No.	Reference	Description
1	[Anderson98]	Anderson, A., et al. (1998). Chrysler goes to extremes. <i>Distributed Computing Magazine</i> , <i>1</i> (10), 24-28. <u>http://doi.ieeecomputersociety.org/10.1109/2.796139</u>
2	[ <u>Beck99</u> ]	Beck, K. (1999). Embracing change with extreme programming. <i>IEEE Computer</i> , 32(10), 70-77. <u>http://ieeexplore.ieee.org/iel5/2/17277/00796139.pdf</u>
3	[ <u>Beck03]</u>	Beck, K. (2003). <i>Test driven development: By example</i> . Reading, MA: Pearson Education. <u>http://www.amazon.com/dp/0321146530</u>
4	[ <u>Beck01</u> ]	Beck, K., & Fowler, M. (2001). <i>Planning extreme programming</i> . Upper Saddle River, NJ: Addison-Wesley. <u>http://www.amazon.com/dp/0201710919</u>
5	[ <mark>Drobka04</mark> ]	Drobka, J., Noftz, D., & Raghu, R. (2004). Piloting XP on four mission critical projects. <i>IEEE Software</i> , 21(6), 70-75. <u>http://doi.ieeecomputersociety.org/10.1109/MS.2004.47</u>
6	[ <u>XP06</u> ]	Extreme Programming. (2006). <i>Extreme programming: A gentle introduction</i> . Retrieved March 5, 2007, from <u>http://www.extremeprogramming.org</u>
7	[ <u>Grenning01</u> ]	Grenning, J. (2001). Launching extreme programming at a process-intensive company. <i>IEEE Software, 18</i> (6), 27-33. <u>http://doi.ieeecomputersociety.org/10.1109/52.965799</u>
8	[ <u>Maurer02</u> ]	Maurer, F., & Martel, S. (2002). Extreme programming: Rapid development for web-based applications. <i>IEEE Internet Computing</i> , 6(1), 86-90. <u>http://doi.ieeecomputersociety.org/10.1109/4236.989006</u>
9	[ <u>Murru03</u> ]	Murru, O., Deias, R., & Mughedda, G. (2003). Assessing XP at a european internet company. <i>IEEE Software</i> , 20(3), 37-43. http://doi.ieeecomputersociety.org/10.1109/MS.2003.1196318
10	[ <u>Poole01]</u>	Poole, C., & Huisman, J. W. (2001). Using extreme programming in a maintenance environment. <i>IEEE Software</i> , <i>18</i> (6), 42-50. <u>http://doi.ieeecomputersociety.org/10.1109/52.965801</u>
11	[ <u>Rasmusson03</u> ]	Rasmusson, J. (2003). Introducing XP into greenfield projects: Lessons learned. <i>IEEE</i> Software, 20(3), 21-28. <u>http://doi.ieeecomputersociety.org/10.1109/MS.2003.1196316</u>
12	[ <u>Rico08b</u> ]	Rico, D. F. (2008). What is the ROI of agile vs. traditional methods? An analysis of XP, TDD, pair programming, and scrum (using real options). <u>http://davidfrico.com/rico08b.pdf</u>
13	[ <u>Schuh01</u> ]	Schuh, P. (2001). Recovery, redemption, and extreme programming. <i>IEEE Software</i> , 18(6), 34-41. <u>http://doi.ieeecomputersociety.org/10.1109/52.965800</u>
14	[ <u>Wake03</u> ]	Wake, W. C. (2002). <i>Extreme programming explored</i> . Upper Saddle River, NJ: Addison-Wesley. <u>http://www.amazon.com/dp/0201733978</u>
15		

### FORM 1.4 - PROJECT TEAM Agile Methods v1.0, Stage 1 - Project Initiation

No.	Role	Name	Phone	Email	Biography
1	Team leader	Liz	212-555-1212	liz@gmail.com	10 years of experience as a project leader for design of web applications
2	Web designer	Bob	212-555-1213	bob@gmail.com	7 years of experience designing web sites in PhotoShop and Dreamweaver
3	Web programmer	Sue	212-555-1214	sue@gmail.com	5 years of experience designing web applications in Java and J2EE
4	Web tester	Pat	212-555-1215	pat@gmail.com	4 years of experience testing web sites and web applications using jUnit
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

		Number							
		Revision							
<b>, ,</b>	$\mathbf{H}_{\mathbf{U}} = \mathbf{V}_{\mathbf{U}} = $	Approved by							
		Date							
AGILE	-METHODS-V1.0 Stage 1 - Project Initiation 1.4	PROJECT TE	AM						
1 4 1	PURPOSE								
	The nurnose of Project Team is for software developers to form a small software team to evecute the work								
	that must be performed in order to create a unique product or service as	a result of a proje	ect.						
1.4.2	REVISION HISTORY								
	Author Description		Initials						
1 1 2									
1.4.3	Team leader web designer(s) web programmer(s) and web tester(s)								
1 4 4	POLICY								
1.4.4	The policy of this propriation is to anoune that								
	The policy of this organization is to ensure that:								
4.4.5	<b>1.4.4.1</b> The software developers form a small software team to create	a unique product	or service.						
1.4.5									
	<b>1.4.5.1</b> The software developers are responsible for establishing roles, recording phone numbers, recording email addresses, and reco	, assigning indivi ording biographie	duals to roles,						
1.4.6	PROCEDURE	6 6 q							
	1.4.6.1 Establish Roles								
	The software developers shall establish the roles of the softwa	re team for the cu	stomer's project.						
	1.4.6.2 Assign Individuals to Roles		1 5						
	The software developers shall assign roles within the software	team for the cus	tomer's project.						
	1.4.6.3 Record Phone Numbers								
	The software developers shall record the phone numbers of the	e software team's	s members.						
	1.4.6.4 Record Email Addresses								
	The software developers shall record the email addresses of th	e software team'	s members.						
	1.4.6.5 Record Biographies								
	The software developers shall record the biographies of the so	ftware team's me	embers.						
1.4.7	OUTPUTS								
	<ul><li>1.4.7.1 Project team. A small group of software developers who share a common mission, vision, goals, and objectives for creating a unique product or service.</li></ul>								

# FORM 1.5 - PROJECT CHARTER

No.	Email	Biography
1	Project name	Amazon
2	Project leader	Liz
3	Customer	Amazon.com
4	Stakeholders	Sam (customer POC), Liz (project leader), Bob (web page designer), Sue (Java programmer), Pat (tester)
5	Purpose	The purpose of this project is to design an e-commerce website to serve as an online business for buying and selling new books on the Internet
6	Description	This project will include the design, development, test, and evaluation of an e-commerce website for buying and selling books using custom or turnkey Internet market solutions
7	Business need	Establish an online presence in order to reach the global marketplace, extend the boundaries of the brick-and-mortar business model, and become a multi-billion dollar business
8	Justification	The costs and benefits of maintaining a traditional, brick-and-mortar book store now exceed those of establishing an online Internet business model and limit our business growth
9	<b>Business case</b>	The benefits of establishing an online Internet business model will double our current sales volume without exceeding the costs of expanding our brick-and-mortar operation
10		
11		
12		
13		
14		
15		

#### Number Revision AGILE METHODS — VERSION 1.0 Approved by Date AGILE-METHODS-V1.0 **1.5 PROJECT CHARTER** Stage 1 - Project Initiation **1.5.1 PURPOSE** The purpose of Project Charter is for a software team to create a document that formally recognizes and authorizes the existence of a project in order to create a unique product or service. 1.5.2 REVISION HISTORY Author Description Initials 1.5.3 PERSONS AFFECTED Team leader, web designer(s), web programmer(s), and web tester(s). **1.5.4 POLICY** The policy of this organization is to ensure that: **1.5.4.1** The software team creates a document that formally authorizes the initiation of a project. 1.5.5 RESPONSIBILITIES **1.5.5.1** The software team is responsible for recording project names, identifying team leaders, identifying customers, identifying stakeholders, stating the purpose, providing descriptions, stating the business needs, providing justification, and providing business cases. 1.5.6 PROCEDURE 1.5.6.1 Record Project Name The software team shall record the name of the customer's project. 1.5.6.2 Identify Team Leader The software team shall identify a member to lead the software team for the customer's project. 1.5.6.3 Identify Customer The software team shall identify the customer's name, address, and point-of-contact(s). 1.5.6.4 Identify Stakeholders The software team shall identify the stakeholders for the customer's project. 1.5.6.5 State Purpose The software team shall state the purpose of the customer's project. 1.5.6.6 Provide Description The software team shall provide a description of the customer's project. 1.5.6.7 State Business Need The software team shall state the business need for the customer's project. 1.5.6.8 Provide Justification The software team shall provide a justification for the customer's project. 1.5.6.9 Provide Business Case The software team shall provide a business case for the customer's project. **1.5.7 OUTPUTS**

**1.5.7.1 Project charter**. A document that formally authorizes the initiation of a project and provides a team leader with the authority to organize, execute, and close a project.

## FORM 1.6 - PROJECT SCOPE

No.	Email	Biography
1	Vision and mission	Create a state-of-the-art online Internet business model and become the global leader international retail market place for the buying and selling of books
2	Goals and objectives	Establish an online Internet e-commerce website to serve as a retail store front for buying and selling books much like a traditional book store
3	Scope description	Purchase, lease, and/or configure custom or turnkey Internet market place solutions in order to design a website for conducting retail consumer transactions
4	Deliverables	E-commerce website consisting of an Internet hosting service, domain name or universal resource locator, and web pages for conducting retail consumer business transactions
5	Schedule	The initial e-commerce website should be established within 10 to 12 weeks from the start of the project with incremental deliveries to obtain early customer feedback
6	Budget	The budget will consist of no more than three or four part-time human resources over a three month period (and the smallest possible capital layout for Internet hosting fees)
7	Risks	Forming an effective development team, quickly and accurately establishing customer needs, finding a cost effective Internet hosting service, and producing the initial increment
8	Assumptions	The customer wants a retail consumer e-commerce website, a turnkey Internet market place solution will suffice, and the project team is capable of designing an e-commerce website
9	Constraints	There are four team members, an initial website will be completed in three months, a turnkey Internet market place solution must be used, and the budget will be kept to a minimum
10		
11		
12		
13		
14		
15		

#### Number Revision AGILE METHODS — VERSION 1.0 Approved by Date AGILE-METHODS-V1.0 **1.6 PROJECT SCOPE** Stage 1 - Project Initiation 1.6.1 PURPOSE The purpose of Project Scope is for a software team to identify the work that must be performed in order to create a unique product or service as a result of a project. 1.6.2 REVISION HISTORY Author Description Initials 1.6.3 PERSONS AFFECTED Team leader, web designer(s), web programmer(s), and web tester(s). 1.6.4 POLICY The policy of this organization is to ensure that: **1.6.4.1** The software team identifies the work that must be performed as part of the project. 1.6.5 RESPONSIBILITIES **1.6.5.1** The software team is responsible for identifying the vision and mission, identifying goals and objectives, documenting the scope description, identifying deliverables, forming a schedule, documenting the budget, identifying risks, recording assumptions, and recording the constraints. 1.6.6 PROCEDURE 1.6.6.1 Identify Vision and Mission The software team shall identify the customer's mission and vision for the project. 1.6.6.2 Identify Goals and Objectives The software team shall identify the customer's goals and objectives for the project. 1.6.6.3 Document Scope Description The software team shall document a short description of the scope for the project. 1.6.6.4 Identify Deliverables The software team shall identify the customer's top-level deliverables for the project. 1.6.6.5 Form a Schedule The software team shall form the customer's top-level schedule for the project. 1.6.6.6 Document the Budget The software team shall document the customer's top-level budget for the project. 1.6.6.7 Identify Risks The software team shall identify the customer's top-level risks for the project. 1.6.6.8 Record Assumptions The software team shall record the customer's overriding assumptions for the project. 1.6.6.9 Record the Constraints The software team shall record the customer's overarching constraints for the project. **1.6.7 OUTPUTS 1.6.7.1** Project scope. The work that must be performed to deliver a product, service, or result with the specified features and functions.

## FORM 1.7 - USER STORIES

No.	Story	Description	Hrs	Pri
1	Web Page Design	Create the overall look-and-feel to the website (to include company logo, splash screen, navigation scheme, information display, etc.)	24	1
2	Product Catalog	Create the mechanism owners use to enter, display, and modify product info (e.g., serial number, title, description, photo, etc.)	24	2
3	Shopping Cart	Create the mechanism customers use to select or mark items from the product catalogue for purchase	24	3
4	Account Manager	Create the mechanism customers use to set up an account, enter personal information, and use to make purchases	24	4
5	Payment Manager	Create the mechanism customers use to complete transactions and submit credit card information for verification and charging	24	5
6	Order Status	Create the mechanism customers use to check on the status of past, present, and future orders	24	6
7	Service Manager	Create the mechanism customers use to interact with customer service representatives concerning their satisfaction or dissatisfaction	24	7
8	Ad Manager	Create the mechanism owners use to communicate advertisements to registered customers	24	8
9	Book Keeping	Create the mechanism owners use to record transactions, update the general ledger, etc.	24	9
10				
11				
12				
13				
14				
15				

## AGILE METHODS — VERSION 1.0

Stage 1 - Project Initiation

AGILE-METHODS-V1.0

## Date 1.7 USER STORIES

Number Revision

Approved by

#### 1.7.1 PURPOSE

The purpose of User Stories is for a software team to collaborate with customers to identify simple, onesentence statements to serve as system-level requirements for a customer's project and resulting product.

#### 1.7.2 REVISION HISTORY

Author	Description	Initials

#### 1.7.3 PERSONS AFFECTED

Team leader, web designer(s), web programmer(s), and web tester(s).

#### 1.7.4 POLICY

The policy of this organization is to ensure that:

**1.7.4.1** The software team identifies simple, one-sentence system-level user requirements for projects.

#### 1.7.5 RESPONSIBILITIES

**1.7.5.1** The software team is responsible for creating user stories, creating user story descriptions, estimating hours to implement user stories, and prioritizing user stories.

#### 1.7.6 PROCEDURE

#### 1.7.6.1 Create User Stories

The software team shall create simple, one-sentence system-level user requirements for project.

#### 1.7.6.2 Create User Story Descriptions

The software team shall create simple, one-sentence descriptions of user stories for a project.

#### 1.7.6.3 Estimate Hours to Implement User Stories

The software team shall estimate the number of hours to complete user stories for the project.

#### **1.7.6.4 Prioritize User Stories**

The software team shall prioritize user stories representing user requirements for a project.

#### **1.7.7 OUTPUTS**

**1.7.7.1 User stories**. Simple, one-sentence system-level requirements written by the user, from the user's perspective, and in the user's language about the things the user wants the system to do.

## FORM 1.8 - SYSTEM METAPHOR

No.	Story	System/Subsystem Metaphor/Objects
1	Web Page Design	Company logo, hot selling products, key sale items, reference to product catalog, company name and address, toll-free telephone number
2	Product Catalog	Product categories, list of products within categories, list of products by manufacturer, product photos, product info, product prices, product availability, etc.
3	Shopping Cart	Wireframe basket on wheels, capacity for multiple items, easy visibility of items in basket, ability to add and remove items from basket, ability to calculate running total
4	Account Manager	Customer name, customer account number, customer pin, customer address, customer credit line, customer balance, customer status, customer history
5	Payment Manager	List of items in shopping cart, merchandise numbers, merchandise descriptions, prices, sales taxes, shipping charges, shipping dates, warehouse availability, total price, terms
6	Order Status	Toll free line, ability to enter order number, listing of products ordered, listing of product availability, listing of estimated ship dates, ability to cancel or update quantities
7	Service Manager	Toll free telephone number, friendly service representative, ability to identify product information, ability to rate satisfaction, ability to return products, ability to obtain refund
8	Ad Manager	Occassional flyer by mail; flyer with sales items, listing of hot selling products, listing of original prices, listing of potential savings, listing of product availability
9	Book Keeping	Accounts receivable, accounts payable, general ledger, billing, inventory, purchase order, sales order, debt collection, expenses, payroll, reports, timesheet, purchase requisition
10		
11		
12		
13		
14		
15		

#### Number Revision AGILE METHODS — VERSION 1.0 Approved by Date AGILE-METHODS-V1.0 **1.8 SYSTEM METAPHOR Stage 1 - Project Initiation** 1.8.1 PURPOSE The purpose of System Metaphor is for a software team to identify a simple shared narrative of how the whole system works in order to guide the development of the product or service resulting from a project. 1.8.2 REVISION HISTORY Author Description Initials 1.8.3 PERSONS AFFECTED Team leader, web designer(s), web programmer(s), and web tester(s). **1.8.4 POLICY** The policy of this organization is to ensure that: **1.8.4.1** The software team identifies a shared simple narrative of how the system works for the project. **1.8.5 RESPONSIBILITIES 1.8.5.1** The software team is responsible for identifying user stories, identifying system metaphors, creating a system narrative, identifying system objects, identifying a subsystem metaphor, creating a subsystem narrative, and/or identifying subsystem objects. 1.8.6 PROCEDURE 1.8.6.1 Identify User Stories The software team shall identify user stories for the customer's project. 1.8.6.2 Identify System Metaphors The software team shall identify a system-level metaphor for the customer's project. 1.8.6.3 Create a System Narrative The software team shall create a simple narrative of the system-level metaphor. 1.8.6.4 Identify System Objects The software team shall identify the major objects within a system-level metaphor or narrative. 1.8.6.5 Identify a Subsystem Metaphor The software team shall identify subsystem-level metaphors for the customer's project. 1.8.6.6 Create a Subsystem Narrative The software team shall create simple narratives of the subsystem-level metaphors. 1.8.6.7 Identify Subsystem Objects The software team shall identify major objects within subsystem-level metaphors or narratives. **1.8.7 OUTPUTS 1.8.7.1** System metaphor. A narrative that everyone can tell about how the system works (e.g., customers, programmers, and managers).

### FORM 1.9 - RELEASE PLAN Agile Methods v1.0, Stage 1 - Project Initiation

No.	Story	Hours	Release	1	2	3	4	5	6
1	Web Page Design	24	1						
2	Product Catalog	24	1						
3	Shopping Cart	24	1						
4	Account Manager	24	1						
5	Payment Manager	24	1						
6	Order Status	24	1						
7	Service Manager	24	1			$\boxtimes$			
8	Ad Manager	24	1			$\boxtimes$			
9	Book Keeping	24	1			$\boxtimes$			
10									
11									
12									
13									
14									
15									

#### Number Revision AGILE METHODS — VERSION 1.0 Approved by Date AGILE-METHODS-V1.0 **1.9 RELEASE PLAN** Stage 1 - Project Initiation 1.9.1 PURPOSE The purpose of Release Plan is for a software team to determine which user stories are going to be implemented for each system release and iteration to realize a unique product or service for a project. 1.9.2 REVISION HISTORY Author Description Initials 1.9.3 PERSONS AFFECTED Team leader, web designer(s), web programmer(s), and web tester(s). **1.9.4 POLICY** The policy of this organization is to ensure that: **1.9.4.1** The software team determines which user stories will be implemented at each release/iteration. 1.9.5 RESPONSIBILITIES **1.9.5.1** The software team is responsible for identifying user stories, estimating hours to implement user stories, identifying releases to implement user stories, identifying iterations to implement user stories, and estimating total hours to implement releases. 1.9.6 PROCEDURE 1.9.6.1 Identify User Stories The software team shall identify user stories for the customer's project. 1.9.6.2 Estimate Hours to Implement User Stories The software team shall estimate the number of hours necessary to implement user stories. 1.9.6.3 Identify Release to Implement User Stories The software team shall identify the release in which to implement user stories. 1.9.6.4 Identify Iteration to Implement User Stories The software team shall identify the iterations in which to implement user stories. 1.9.6.5 Estimate Hours to Implement Releases The software team shall estimate the number of hours necessary to implement releases. **1.9.7 OUTPUTS**

**1.9.7.1 Release plan.** A document that specifies exactly which user stories are going to be implemented for each system release and dates for those releases.

### FORM 2.1 - DEVELOPMENT TASKS Agile Methods v1.0, Stage 2 - Project Execution

No.	Story	Task	Description	Init.	Hours
	WID	Create Web Page	Design 'create web page' function	Bob	8
1	Web Page	Display Web Page	Design 'display web page' function	Sue	8
	Design	Enhance Web Page	Design 'enhance web page' function	Pat	8
	Due du et	Load Catalog	Design 'load catalog' function	Bob	8
2	Catalog	Display Catalog	Design 'display catalog' function	Sue	8
	Catalog	Update Catalog	Design 'update catalog' function	Pat	8
	Shonning	Load Cart	Design 'load cart' function	Bob	8
3	Cart	Display Cart	Design 'display cart' function	Sue	8
	Cart	Update Cart	Design 'update cart' function	Pat	8
	Account	Create Account	Design 'create account' function	Bob	8
4	Manager	Display Account	Design 'display account' function	Sue	8
	munuger	Update Account	Design 'update account' function	Pat	8
	Payment	Load Payment	Design 'load payment' function	Bob	8
5	Manager	Display Payment	Design 'display payment' function	Sue	8
		Submit Payment	Design 'submit payment' function	Pat	8
		Select Order	Design 'select order' function	Bob	8
6	Order Status	Display Order	Design 'display order' function	Sue	8
		Change Order	Design 'change order' function	Pat	8
7	Service	Select Service	Design 'select service' function	Bob	8
	Manager	Display Service	Design 'display service' function	Sue	8
	8	Request Service	Design 'request service' function	Pat	8
_		Create Ad	Design 'create ad' function	Bob	8
8	Ad Manager	Display Ad	Design 'display ad' function	BobBobSuePatBobSuePatBobSuePatBobSuePatBobSuePatBobSuePatBobSuePatBobSuePatBobSuePatBobSuePatBobSuePatBobSuePatBobSuePatBobSuePatBobSuePatBobSuePatBobSuePatSueSuePatSueSuePatSueSuePatSue<	8
		Distribute Ad	Design 'distribute ad' function	Pat	8
~	Book	Create Ledger	Design create ledger function	Bob	8
9	Keeping	Display Ledger	Design display ledger function	Sue	8
		Correct Ledger	Design correct ledger function	Pat	8
10					
10					
11					
12					
13					
14					
15					

#### Number Revision AGILE METHODS — VERSION 1.0 Approved by Date AGILE-METHODS-V1.0 2.1 DEVELOPMENT TASKS Stage 2 – Project Execution 2.1.1 PURPOSE The purpose of Development Tasks is for a software team to identify a list of lower-level technical requirements, objects, functions, or activities to satisfy user stories and implement products for a project. 2.1.2 REVISION HISTORY Author Description Initials 2.1.3 PERSONS AFFECTED Team leader, web designer(s), web programmer(s), and web tester(s). 2.1.4 POLICY The policy of this organization is to ensure that: 2.1.4.1 The software team identifies lower-level technical requirements, objects, functions, or activities. 2.1.5 RESPONSIBILITIES 2.1.5.1 The software team is responsible for identifying user stories, identifying development tasks, documenting task descriptions, assigning tasks to software team members, and estimating hours to implement tasks. 2.1.6 PROCEDURE 2.1.6.1 Identify User Stories The software team shall identify user stories for the customer's project. 2.1.6.2 Identify Development Tasks The software team shall identify lower-level technical tasks to satisfy/implement user stories. 2.1.6.3 Document Task Descriptions The software team shall document descriptions of tasks used to satisfy/implement user stories. 2.1.6.4 Assign Tasks to Software Team Members The software team shall assign tasks to individual members to satisfy/implement user stories. 2.1.6.5 Estimate Hours to Implement Tasks The software team shall estimate the number of person hours to satisfy/implement user stories. 2.1.7 **OUTPUTS**

2.1.7.1 **Development tasks**. A list of lower-level, technical requirements, objects, functions, or activities developers must perform in order to satisfy user stories (e.g., derived requirements).

## FORM 2.2 - ITERATION PLAN

### AGILE METHODS V1.0, STAGE 2 - PROJECT EXECUTION

No.	Story	Task	Init.	Done	To Do	Status
	WID	Create Web Page	Bob	0	8	Task not yet started
1	Web Page	Display Web Page	Sue	0	8	Task not yet started
	Design	Enhance Web Page	Pat	0	8	Task not yet started
		Load Catalog	Bob	0	8	Task not yet started
2	Product	Display Catalog	Sue	0	8	Task not yet started
	Catalog	Update Catalog	Pat	0	8	Task not yet started
	Character	Load Cart	Bob	0	8	Task not yet started
3	Snopping	Display Cart	Sue	0	8	Task not yet started
	Can	Update Cart	Pat	0	8	Task not yet started
	Account	Create Account	Bob	0	8	Task not yet started
4	Managar	Display Account	Sue	0	8	Task not yet started
	Manager	Update Account	Pat	0	8	Task not yet started
	Poymont	Load Payment	Bob	0	8	Task not yet started
5	1 dyment Manager	Display Payment	Sue	0	8	Task not yet started
	Manager	Submit Payment	Pat	0	8	Task not yet started
		Select Order	Bob	0	8	Task not yet started
6	Order Status	Display Order	Sue	0	8	Task not yet started
		Change Order	Pat	0	8	Task not yet started
	Service	Select Service	Bob	0	8	Task not yet started
7	Manager	Display Service	Sue	0	8	Task not yet started
	Tranger	Request Service	Pat	0	8	Task not yet started
	Ad Manager	Create Ad	Bob	0	8	Task not yet started
8		Display Ad	Sue	0	8	Task not yet started
		Distribute Ad	Pat	0	8	Task not yet started
	Book	Create Ledger	Bob	0	8	Task not yet started
9	Keeping	Display Ledger	Sue	0	8	Task not yet started
		Correct Ledger	Pat	0	8	Task not yet started
10						
10						
12						
12						
12						
13						
14						
15						

#### Number Revision AGILE METHODS — VERSION 1.0 Approved by Date AGILE-METHODS-V1.0 2.2 ITERATION PLAN Stage 2 – Project Execution 2.2.1 PURPOSE The purpose of Iteration Plan is for a software team to track the progress and status of implementing user stories and development tasks within releases in order to complete products resulting from a project. 2.2.2 REVISION HISTORY Author Description Initials 2.2.3 PERSONS AFFECTED Team leader, web designer(s), web programmer(s), and web tester(s). 2.2.4 POLICY The policy of this organization is to ensure that: 2.2.4.1 The software team creates and uses an iteration plan to track progress of implementing tasks. 2.2.5 **RESPONSIBILITIES** 2.2.5.1 The software team is responsible for identifying user stories, identifying development tasks, identifying individuals assigned to tasks, estimating the number of task hours completed, estimating the number of task hours remaining, and determining task status. 2.2.6 PROCEDURE 2.2.6.1 Identify User Stories The software team shall identify user stories for the customer's project. 2.2.6.2 Identify Development Tasks The software team shall identify lower-level technical tasks to satisfy/implement user stories. 2.2.6.3 Identify Individuals Assigned to Tasks The software team shall assign individuals to satisfy/implement lower-level technical tasks. 2.2.6.4 Estimate Number of Task Hours Completed The software team shall estimate the number of hours completed in satisfying/implement tasks. 2.2.6.5 Estimate Number of Task Hours Remaining The software team shall estimate the number of hours remaining to satisfy/implement tasks. 2.2.6.6 Determine Task Status The software team shall determine and record the status of satisfying/implementing tasks. 2.2.7 **OUTPUTS**

**2.2.7.1 Iteration plan.** A documented listing of user stories, development tasks, task estimates, task completion estimates, and task status used to track the progress of iterations within releases.

### FORM 2.3 - UNIT TESTS

### AGILE METHODS V1.0, STAGE 2 - PROJECT EXECUTION

No.	Story	Task	Unit Test	
	Web Deet	Create Web Page	public void CreateWebPage () {WebPage newpage = new WebPage(pageinfo); }	Fail
1	Neb Page	Display Web Page	public void DisplayWebPage () {newpage.display; }	Fail
	Design	Enhance Web Page	<pre>public void EnhanceWebPage () {newpage.enhance(pageinfo); }</pre>	Fail
	Droduct	Load Catalog	<pre>public void LoadCatalog () {Catalog newcatalog = new Catalog(productlist); }</pre>	Fail
2	Catalog	Display Catalog	<pre>public void DisplayCatalog () {newcatalog.display; }</pre>	Res         Fail         Fail <tr< th=""></tr<>
	Catalog	Update Catalog	<pre>public void UpdateCatalog () {newcatalog.update(productlist); }</pre>	Fail
	Shonning	Load Cart	<pre>public void LoadCart () {Cart newcart = new Cart(product); }</pre>	Fail
3	Cart	Display Cart	public void DisplayCart () {newcart.display; }	Fail
	Curt	Update Cart	<pre>public void UpdateCart () {newcart.update(product); }</pre>	Fail
	Account	Create Account	<pre>public void CreateAccount () {Account newaccount = new Account(accountinfo); }</pre>	Fail
4	Manager	Display Account	public void DisplayAccount () {newaccount.display; }	Fail
	8	Update Account	public void UpdateAccount () {newaccount.update(accountinfo); }	Fail
_	Payment	Load Payment	public void LoadPayment () {Payment newpayment = new Payment(paymentinfo); }	Fail
5	Manager Display Payment		public void DisplayPayment () { newpayment.display; }	Fail
		Submit Payment	public void SubmitPayment () {newpayment.submit; }	Fail
,	Order	Select Order	public void SelectOrder {) {Order neworder = new Order(orderinfo}; }	Fail
6	Status	Display Order	public void DisplayOrder () { neworder.display; }	Fail
		Change Order	public void ChangeOrder () {heworder.change; }	Fall
-	Service	Display Service	public void SelectService {) {Service newservice = new Service(serviceinio}; }	Res           Fail           Fail     <
'	Manager	Display Service	public void DisplayService () {newservice.cusplay; }	Fail Fail
		Create Ad	public void Requestservice () {hewselvice.request(accountinto,productinto), }	Fail
0	Ad	Display Ad	public void Display Ad () {newad display: }	Fail           Fail
0	Manager	Display Ad	public void DisplayAu () {newad distribute: }	Fail
	Create Ledger		public void CreateLedger {) {Ledger newledger = new Ledger(ledgerinfo}; }	Fail
9	Book	Display Ledger	public void DisplayLedger () {newledger display: }	Fail
	Keeping	Correct Ledger	public void CorrectLedger () {newledger.correct(ledgerinfo): }	Fail
10				
11				
12				
13				
14				
15				

#### Number Revision AGILE METHODS — VERSION 1.0 Approved by Date AGILE-METHODS-V1.0 2.3 UNIT TESTS Stage 2 – Project Execution 2.3.1 PURPOSE The purpose of Unit Tests is for a software team to create and execute procedures to evaluate low-level software methods to determine if they satisfy their requirements and they are free from defects or failures. 2.3.2 REVISION HISTORY Author Description Initials 2.3.3 PERSONS AFFECTED Team leader, web designer(s), web programmer(s), and web tester(s). 2.3.4 POLICY The policy of this organization is to ensure that: 2.3.4.1 The software team creates and executes procedures for evaluating low-level software methods. 2.3.5 RESPONSIBILITIES The software team is responsible for identifying user stories, identifying development tasks, 2.3.5.1 identifying unit tests, and identifying unit test results. 2.3.6 PROCEDURE 2.3.6.1 Identify User Stories The software team shall identify user stories for the customer's project. 2.3.6.2 Identify Development Tasks The software team shall identify lower-level technical tasks to satisfy/implement user stories. 2.3.6.3 Identify Unit Tests The software team shall create procedures for evaluating low-level software methods. 2.3.6.4 Record Unit Test Results The software team shall record the results of evaluating low-level software methods. 2.3.7 **OUTPUTS**

**2.3.7.1 Unit tests.** Operational or functional evaluations of low-level software components such as methods of classes to determine if they satisfy their requirements without defects or failures.

### FORM 2.4 - ACCEPTANCE TESTS Agile Methods v1.0, Stage 2 - Project Execution

No.	Story	Acceptance Test	Description	
	W.L.D	Find Web Page	Find web page by typing its URL into browser	Fail
1	Web Page	Search Web Page	Find web page by using various search engines	Fail
	Design	Browse Web Page	Evaluate web page usability, functionality, and performance	Fail
	Dece la st	Peruse Catalog	Peruse catalog in an ad hoc fashion to find relevant products	Fail
2	Catalog	Browse Catalog	Browse catalog by categories to find relevant products	Fail
	Catalog	Search Catalog	Browse catalog using search engine to find relevant products	Fail
	Shonning	Add Items	Add items to shopping cart found in product catalog	Fail
3	Cart	Display Items	Display items in shopping cart found in product catalog	Fail
	Cart	Remove Items	Remove items from shopping cart found in product catalog	Fail
	Account	Create Account	Create a personal account in order to purchase items	Fail
4	Manager Browse Account V		View account settings to verify need functionality is present	Fail
	Wallager	Change Account	Change account settings to verify functionality of account manager	Fail
	Payment	Exercise Payments	Exercise various payment options and settings	Fail
5	Manager	Select Payment	Select a payment option in preparation for ordering	Fail
	manager	Make Payment	Submit a payment in order to obtain a product	Fail
	Order	Find Status	Find order status features and check status of products ordered	Res           Fail           Fail     <
6	Status	Track Package	Determine if product status can be ascertained on a daily basis	
	Status	Change Status	Change status by changing delivery method, mode, or options	Fail
7	Service	Locate Service	Browse website to find customer service	Fail
	Manager	Contact Service	Determine product, account, and order status	Fail
	Tranger	Request Service	Request refund, return, or product exchange	Fail
8	Ad	Modify Product Info	Modify product info to trigger advertising activity	Fail
	Manager	Monitor Status	Determine if activity is positively affected by advertising	Fail Fail
	g	Send Targeted Info	Create and send demographically-targeted advertisements	Fail
	Book	Browse Financials	Browse financial information and status	Fail
9	Keeping	Check Inventory	Determine its history, status, and reorder activity	Fail         Fail <t< th=""></t<>
	1 8	Check Entries	Check transaction history to look for trend data	Fail
10				
11				
10				
12				
10				
13				
14				
14				
15				+
15		<u> </u>		

#### Number Revision AGILE METHODS — VERSION 1.0 Approved by Date AGILE-METHODS-V1.0 2.4 ACCEPTANCE TESTS Stage 2 – Project Execution 2.4.1 PURPOSE The purpose of Acceptance Tests is for customers to create and execute procedures to evaluate high-level system functions to determine if they satisfy their requirements and they are free from defect or failures. 2.4.2 REVISION HISTORY Author Description Initials 2.4.3 PERSONS AFFECTED Team leader, web designer(s), web programmer(s), and web tester(s). 2.4.4 POLICY The policy of this organization is to ensure that: 2.4.4.1 The customer creates and executes procedures for evaluating high-level system functions. 2.4.5 RESPONSIBILITIES 2.4.5.1 The software team is responsible for identifying user stories, identifying acceptance tests, documenting acceptance test descriptions, and recording acceptance test results. 2.4.6 PROCEDURE 2.4.6.1 Identify User Stories The customer shall identify user stories for the project. 2.4.6.2 Identify Acceptance Tests The customer shall create procedures for evaluating high-level system functions. 2.4.6.3 Document Acceptance Test Descriptions The customer shall document the description of procedures for evaluating system functions. 2.4.6.4 Record Acceptance Test Results The customer shall record the results of evaluating high-level system functions. 2.4.7 **OUTPUTS** 2.4.7.1 Acceptance tests. Operational or functional evaluations of high-level system functions from

**4.7.1** Acceptance tests. Operational or functional evaluations of high-level system functions from a user perspective to determine if they satisfy their requirements without defects or failures.

### FORM 2.5 - PEER EVALUATION Agile Methods v1.0, Stage 2 - Project Execution

No.	Role	Name	Item		2	3	4	5	6	7
			The team member is able to competently perform their role							
			The team member is a good oral and written communicator							
1	Leader	Liz	The team member is reliable, trustworthy, and dependable							
			The team member is friendly and easy to get along with							
			The team member is able to deliver in a timely manner							
			The team member is able to competently perform their role							
	Web Page		The team member is a good oral and written communicator							
2	Designer	Bob	The team member is reliable, trustworthy, and dependable	Ц	Ц			Ц	Ц	Ц
			The team member is friendly and easy to get along with	닏	Ц			Ц	ЦЦ	Ц
			The team member is able to deliver in a timely manner	Ц	Ц			Ц	ЦЦ	Ц
			The team member is able to competently perform their role	님	IЦ		Ц	Ц	닏	Ц
	Java	G	The team member is a good oral and written communicator	님	IЦ			Ц	닏	Ц
3	Programmer	Sue	The team member is reliable, trustworthy, and dependable	님	님		H	Н	닏	
	-		The team member is friendly and easy to get along with	님	님		H	H	믐	믐
			The team member is able to deliver in a timely manner	님	H		H	H	⊢	H
			The team member is a good and and written communicator	님	님	╞	⊢	믐	믐	H
4	Tester	Dat	The team member is a good oral and written communicator	님	H	╞	H	H	믐	H
4	Tester	rai	The team member is friendly and easy to get along with	늼	怡	┢╞	┢	믐	븜	븜
			The team member is able to deliver in a timely manner	H	片	╞	H	H	片	H
			The team member is able to competently perform their role	H	H		H	H	H	H
			The team member is a good oral and written communicator	Ħ	H	╞	H	H	H	Ħ
5			The team member is reliable trustworthy and dependable	Ħ	H	┢═	H	H	H	H
Ŭ			The team member is friendly and easy to get along with	Ħ	怡		H	H	Ħ	H
			The team member is able to deliver in a timely manner	Ħ	Ħ	F	Ħ	Ħ	Ħ	Ħ
			The team member is able to competently perform their role.	Ħ	Ħ	F	Ħ	Ħ	Ħ	Ħ
			The team member is a good oral and written communicator	Π	Ħ		П	Ħ	Π	F
6	I		The team member is reliable, trustworthy, and dependable	Π	П		Π	Π	Π	Ē
			The team member is friendly and easy to get along with							
			The team member is able to deliver in a timely manner							
			The team member is able to competently perform their role							
			The team member is a good oral and written communicator							
7			The team member is reliable, trustworthy, and dependable							
			The team member is friendly and easy to get along with							
			The team member is able to deliver in a timely manner							
			The team member is able to competently perform their role							
			The team member is a good oral and written communicator							
8			The team member is reliable, trustworthy, and dependable	닏	Ц			Ц	ЦЦ	Ц
			The team member is friendly and easy to get along with	Ц	Ц		Ц	Ц	Ц	Ц
			The team member is able to deliver in a timely manner	Ц	Ц		Ц	Ц	Ц	Ц
			The team member is able to competently perform their role	님	旧			Ц	닏	Ц
			The team member is a good oral and written communicator	님	님		H	Н	닏	
9			The team member is reliable, trustworthy, and dependable	님	님		H	H	븜	믐
			The team member is triendly and easy to get along with	님	님		$\mathbb{H}$	H	믐	H
			The team member is able to deliver in a timely manner	님	H		H	H	믐	H
			The team member is a good oral and written communicator	늼	H		H	H	믐	H
10			The team member is reliable, trustworthy, and dependeble	H	怡	╞	H	吕	믐	H
10			The team member is friendly and easy to get along with	H	怡	┢═	H	H	H	H
			The team member is able to deliver in a timely manner	片	日		H	愲	片	H
			The team member is able to competently perform their role	H	片	╂╞═	片	片	┢╞┽	片
			The team member is a good oral and written communicator	Ħ	怡	恄	悁	愲	片	H
11			The team member is reliable, trustworthy, and dependable	Ħ	tĦ	┟╞╴	悁	悁	Ħ	H
			The team member is friendly and easy to get along with	Ħ	Ħ		日	Ħ	Ħ	Ħ
			The team member is able to deliver in a timely manner	Ħ	tΠ		tΠ	Гī	F	Ē

#### Number Revision AGILE METHODS — VERSION 1.0 Approved by Date AGILE-METHODS-V1.0 2.5 PEER EVALUATION Stage 2 – Project Execution **2.5.1 PURPOSE** The purpose of Peer Evaluation is for software teams to assess the performance of other team members as well as themselves in order to improve individual and group performance and project success. 2.5.2 REVISION HISTORY Author Description Initials 2.5.3 PERSONS AFFECTED Team leader, web designer(s), web programmer(s), and web tester(s). 2.5.4 POLICY The policy of this organization is to ensure that: 2.5.4.1 The software team assesses the performance of the other team members as well as themselves. 2.5.5 RESPONSIBILITIES 2.5.5.1 The software team is responsible for assessing competence of team members, assessing communication skills of team members, assessing reliability of team members, assessing people skills of team members, and assessing the timeliness of team members. 2.5.6 PROCEDURE 2.5.6.1 Assess Competence of Team Members The software team shall assess the competence of team members on the customer's project. 2.5.6.2 Assess Communication Skills of Team Members The software team shall assess the communications of team members on the customer's project. 2.5.6.3 Assess Reliability of Team Members The software team shall assess the reliability of team members on the customer's project. 1.9.7.2 Assess People Skills of Team Members The software team shall assess the people skills of team members on the customer's project. 2.5.6.4 Assess Timeliness of Team Members The software team shall assess the timeliness of team members on the customer's project. 2.5.7 **OUTPUTS 2.5.7.1** Peer evaluation. A process in which the software team members assess the other members of the software team as well as themselves to provide insight for improving team performance.

### FORM 2.6 - CUSTOMER SATISFACTION Agile Methods v1.0, Stage 2 - Project Execution

No.	Name	Item	1	2	3	4	5	6	7
		To what extent does the website use audio/video elements properly?							
1	Multimedia	To what extent does the website use animation/graphics properly?							
		To what extent does the website use multimedia features properly?							
		To what extent is navigating the website easy?							
2	Search	To what extent is there a clear indication of the website's content?							
		To what extent does the website have well organized hyperlinks?							
		To what extent is response time of the website proper?							
3	Responsiveness	To what extent is searching fast on the website?							
		To what extent is searching time is reasonable?							
	Information	To what extent does the website provide useful information?							
4	Accuracy	To what extent does the website provide accurate data?							
	neeurueg	To what extent is the website informative?							
	Information	To what extent is the website relevant?							
5	Relevance	To what extent can you find what you need on the website?							
		To what extent does the website provide relevant data?							Ш
		To what extent does the website have an interactive feedback mechanism?							
6	Empathy	To what extent does the website have personalized information?					Ш	Ц	Ц
		To what extent does the website empathize with customer problems?		Ш			Ш	Ц	Ц
	_	To what extent do you feel protected/safe when you use the website?	Ц				Щ	Ц	Ц
7	Trust	To what extent is the website secure?	Ц				Щ	Ц	Ц
		To what extent is the website reliable?	Ц				Ш	Ц	Ц
		To what extent is the website attractive/appealing?	Ц		Щ	Ц	Ц		
8	Playfulness	To what extent does the website promote customer excitement?	Ц			ЦЦ	Щ	Ц	Ц
		To what extent does the website motivate you to feel participation?	Ц	Ц		ЦЦ	닏	Ц	Щ
	<b>T</b> ( ) ( )	To what extent does the website provide online games/cartoons?	Ц				냳		H
9	Entertainment	To what extent is the website fun?					냳	님	H
		To what extent is the website entertaining?					님		H
10					╠		╬		H
10			$\vdash$		┢		뷴	믐	H
			Н				H	H	H
4.4			$\vdash$		╞		냼븜	H	님
			⊢	┢	╬	┼┼╡	╊	┢	┢╧┥
			$\vdash$	H	┢╞		₩	┢	┢╧┥
12			H	H	┢	$\left  \right $	怡	믐	H
12			늼	H	╞	$\exists$	卄片	H	┢
			Η	H			H	H	H
13			H	H	┢	H	愲	H	H
10			Η	H	╞	H	愲	H	H
			H	H		H	耑	H	H
14			H	H	┢	H	怡	H	H
			H	H			Ħ	H	Н
			H	T			Ħ	H	H
15			H	日	╞	H	片	日	Ħ
			Ħ	T			Ħ	Ħ	Ц

#### Number Revision AGILE METHODS — VERSION 1.0 Approved by Date AGILE-METHODS-V1.0 2.6 CUSTOMER SATISFACTION Stage 2 – Project Execution 2.6.1 PURPOSE The purpose of Customer Satisfaction is for customers to determine the degree to which the software team's resulting product or service satisfies the requirements per the user stories and acceptance tests. 2.6.2 REVISION HISTORY Author Description Initials 2.6.3 PERSONS AFFECTED Team leader, web designer(s), web programmer(s), and web tester(s). 2.6.4 POLICY The policy of this organization is to ensure that: 2.6.4.1 The customer determines the degree to which the product or service satisfies its requirements. 2.6.5 **RESPONSIBILITIES** 2.6.5.1 The customer shall determine if multimedia, search, responsiveness, information accuracy, information relevance, empathy, trust, playfulness, and entertainment requirements are satisfied for the project. 2.6.6 PROCEDURE 2.6.6.1 Determine if Multimedia Requirements are Satisfied The customer shall determine if multimedia requirements are satisfied for the project. 2.6.6.2 Determine if Search Requirements are Satisfied The customer shall determine if search requirements are satisfied for the project. 2.6.6.3 Determine if Responsiveness Requirements are Satisfied The customer shall determine if responsiveness requirements are satisfied for the project. 2.6.6.4 Determine if Information Accuracy Requirements are Satisfied The customer shall determine if information accuracy requirements are satisfied for the project. 2.6.6.5 Determine if Information Relevance Requirements are Satisfied The customer shall determine if information relevance requirements are satisfied for the project. 2.6.6.6 Determine if Empathy Requirements are Satisfied The customer shall determine if empathy requirements are satisfied for the project. 2.6.6.7 Determine if Trust Requirements are Satisfied The customer shall determine if trust requirements are satisfied for the project. 2.6.6.8 Determine if Playfulness Requirements are Satisfied The customer shall determine if playfulness requirements are satisfied for the project. 2.6.6.9 Determine if Entertainment Requirements are Satisfied The customer shall determine if entertainment requirements are satisfied for the project. 2.6.7 **OUTPUTS 2.6.7.1 Customer satisfaction.** A measure of the degree to which the software product or service meets the customer's expectations as defined by the user stories and acceptance tests.

### FORM 2.7 - LESSONS LEARNED

### AGILE METHODS V1.0, STAGE 2 - PROJECT EXECUTION

No.	Name	Item	1	2	3	4	5	6	7
		The project vision and mission were clearly defined							
		The project scope was clearly defined							
	General	The project objectives were clearly defined							
1	Performance	The project work objectives were clearly defined							
		The project roles were clearly defined							
		The project involvement was adequate							
		The project meetings were efficient and effective							
		The project executive support was adequate							
2	Communication	The project cross functional participation was adequate							
~	Performance	The project recognition and rewards were adequate							
		The project team was committed in its entirety							
		The project people issues did not get in the way							
		The project estimates adequately accounted for diversions							
		The project estimates accounted for all work							
2	Schedule	The project estimates accounted for key technical work							
3	Performance	The project estimates accounted for all tasks							
		The project estimates were accurate							
		The project estimates resulted in little or no rework							
		The architecture and design were effective							
		The functional specifications were effective							
	Development	The design and implementation were effective							
4	Performance	The design reviews were effective							
		The system and code reviews were effective							
		The interfaces were well-defined/documented							
		The unit testing was adequate							
		The integration testing was adequate							
Б	Test	The acceptance testing was adequate							
3	Performance	The level of quality assurance was comprehensive							
		The build process worked adequately							
		The tools that were needed were adequate							
		The development process did not hamper the project							
		The development process does not need to be changed							
6	Process	The development process is well understood							
Ũ	Performance	The development process is adequate							
		The development process doesn't have any issues							
		The development process is a good approach in-general							
		There were no schedule slips that could have been avoided							
		There were no outside dependencies that delayed the project							
7	Closeout	There were no bottlenecks in the development process							
	Performance	There were no frustrations with the project							
		There were no development processes that need to be changed							
		There were no project improvements that needed to be made							
8							Ш		
							Ш		
							Ц		

#### Number Revision AGILE METHODS — VERSION 1.0 Approved by Date AGILE-METHODS-V1.0 2.7 LESSONS LEARNED Stage 2 – Project Execution 2.7.1 PURPOSE The purpose of Lessons Learned is for a software team to derive knowledge from the evaluation and implementation of the project and identify the strengths, weaknesses, and areas for improvement. 2.7.2 REVISION HISTORY Author Description Initials 2.7.3 PERSONS AFFECTED Team leader, web designer(s), web programmer(s), and web tester(s). 2.7.4 POLICY The policy of this organization is to ensure that: 2.7.4.1 The software team evaluates the strengths and weaknesses of executing the customer's project. 2.7.5 RESPONSIBILITIES 2.7.5.1 The software team shall evaluate the general, communication, schedule, development, test, process, and closeout performance of executing the customer's software project. 2.7.6 PROCEDURE 2.7.6.1 General Performance The software team shall evaluate the general performance of the customer's project. 2.7.6.2 Communication Performance The software team shall evaluate the communication performance of the customer's project. 2.7.6.3 Schedule Performance The software team shall evaluate the schedule performance of the customer's project. 2.7.6.4 Development Performance The software team shall evaluate the development performance of the customer's project. 2.7.6.5 Test Performance The software team shall evaluate the test performance of the customer's project. 2.7.6.6 Process Performance The software team shall evaluate the process performance of the customer's project. 2.7.6.7 Closeout Performance The software team shall evaluate the closeout performance of the customer's project. 2.7.7 **OUTPUTS** 2.7.7.1 Lessons learned. Knowledge derived from the implementation and evaluation of a program that can be used to identify strengths and weaknesses of program design and implementation.