



QR Marks the Spot@MdH Final Project Report

Version 1.0

QR Marks the Spot@MdH	Version: 1.0
Final Project Report	Date: 2010-01-15

Revision History

Date	Version	Description	Author
2010-01-15	0.1	Initial Draft	Soumya Kanti Chakraborty
2010-01-15	1.0	Final Version	Sriram Sundar Rajan & Soumya Kanti Chakraborty

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1. Introduction

1.1 Purpose of this document

The purpose of this document is to provide a summarized report of the project. This report speaks about the final status of the project, the milestones accomplished, the requirements fulfilled and the challenges conquered during the journey of completion of the project.

1.2 Intended Audience

The document is intended for the following audience:

Customer : To understand overall development of the project and validate the fulfillment of all requirements or not

Project Supervisor : To get an idea how the team worked and what challenges were faced by them.

Project Team : To get along with the contribution of each member to the project and insight of their individual efforts.

1.3 Scope

The Scope of the document is to provide a summarized view of final deliverables of the project, accomplishments and hurdles faced.

1.4 Definitions and acronyms

1.4.1 Definitions

Keyword	Definitions

1.4.2 Acronyms and abbreviations

Acronym or abbreviation	Definitions
MDH	Malardalen University
SVN	Sub Version
FER	University of Zagreb, Croatia
VM	Virtual Machine
QR	Quick Response

1.5 References

2. Background and Objectives

The objective of the 'QR Marks the Spot@Mdh' project is to popularize the use of QR Codes. QR Codes encapsulates texts and URLs inside them that could be read with a camera mobile and a QR Reader. Widely used in the vehicle manufacturing industry to track parts, the proposed solution must increase the use of QR codes in a practical way and make them more accepted and widespread. 'WannaBike' is the concept developed to realise the objective. With the help of a mobile phone with camera and QR code reader installed in it, an end user is empowered to take a bike, use it and park it at any place of his choice at zero cost.

3. Organization

3.1 Project Manager

All the members of the project were from MDH, Sweden with a remote supervisor at FER, Croatia. Based on internal discussions and google poll, project manager was chosen and was entrusted with the responsibility of communicating with the customer, understanding customer requirements and expectations, organization and delegation of work to the team.

Project Coordinator – Marin Orlić

Project Manager – Sriram Sundar Rajan

Team Lead – Soumya Kanti Chakraborty

3.2 Project Group

Name	Responsibility
Sriram Sundar Rajan	Project Leader, Google Map Integration
Soumya Kanti Chakraborty	Team Leader, System Administrator, SVN Co-ordinator
Siblee Islam	Lead Developer in CakePHP Framework
Muhammad Umair Zahid	Developer, Google Map Integration
Muhammad Atif Javed	Developer, Forum and Twitter Integration
Haroon Rasheed	Testing and Documentation , Forum and Twitter Integration

3.3 Steering Group

Marin Orlić, Mario Žagar

3.4 Customer

Marin Orlić, Mario Žagar

3.5 Others

Rikard Land (MdH), Ivica Crnković (MdH), Rikard Land (MdH), Aneta Vulgarakis (MdH), Ana Petričić (FER), Igor Čavrak (FER), Ivana Bosnić, (FER)

4. Milestones

Id	Milestone Description	Responsible Dept./Initials	Finished week				Metr	Rem
			Plan	Forecast		Actual		
				Week	+/-			
M001	Project Plan	SSR/SKC	W38	W38		W38		
M002	Requirements Definition	SSR/SKC	W39	W39		W39		
M003	Class Design	MUZ	W41	W41		W41		
M004	Database Design	MSI	W41	W41		W41		
M005	UI Design	MAJ/SKC	W41	W41		W41		
M006	QR Code Processing	SKC	W43	W43		W43		
M007	UI Development	MUZ	W46	W46		W46		
M008	Core Logic	MSI/MAJ	W47	W47		W47		
M009	Google Maps Integration	SSR	W47	W47		W47		
M010	Search module Implementation	MSI	W48	W48		W48		
M011	Testing	HR	W01	W01		W01		
M012	Documentation	HR/SKC	W02	W02		W02		

5. Project Results

5.1 Requirements

5.1.1 Requirement Compliance Matrix

Id	Requirement Description	completed	Rem
WWW-1	Create Website to make it accessible worldwide	Yes	
WWW-2	User Account Management	Yes	
WWW-3	Bike Data Management	Yes	
WWW-4	User 'Checks In' the system to take a bike	Yes	
WWW-5	User 'Checks Out' of the system to park a bike	Yes	
RVM-1	Read QR Codes	Yes	
RVM-2	Assign QR Code to each bike	Yes	
RVM-3	Create QR Codes with a Short text message	Yes	
GM-1	Integrate the website with Google maps	Yes	
GM-2	Search based on end user location	Yes	
GC-1	Use forums to create and reply to posts	Yes	
GC-2	Forum moderation	Yes	
NF-1	The web site response should be <400ms	Yes	
NF-2	Wannabike mobile website should be optimized for viewing on QVGA mobile screen	Yes	

Completed: Yes (completely implemented)

No (not implemented at all)

Partially (partially implemented, more description under Remarks subsection)

Unknown (completion status not known)

Dropped (requirement was dropped during the course of the project)

5.1.2 Requirements Compliance Summary

Total number of requirements	14
Number of requirements implemented	14
Requirements partially fulfilled	
Requirements not fulfilled	
Requirements dropped	

5.2 Work Products and Deliverables

To	Output	Planned week	Promised week	L a t e +/ -	Delivered week	Rem
Project Manager	Week Report from individual team members	W38(2009) – W02(2010)	W38(2009) – W02(2010)		W38(2009) – W02(2010)	
Steering group, Project Team members	Summary Week Report	W38(2009) – W02(2010)	W38(2009) – W02(2010)		W38(2009) – W02(2010)	
Steering group, Project Team members	Minutes of Meeting	W38(2009) – W02(2010)	W38(2009) – W02(2010)		W38(2009) – W02(2010)	
Steering group, Project Team members	Technical Documents, Project policies	W38(2009) – W02(2010)	W38(2009) – W02(2010)		W38(2009) – W02(2010)	
Steering group, Project Team members	Project Vision Document	W38(2009)	W38(2009)		W38(2009)	
Steering group, Project Team members	Project Plan Document	W39(2009)	W39(2009)		W39(2009)	
Steering group, Project Team members	Requirements Definition document	W39(2009)	W39(2009)		W39(2009)	
Steering group, Project Team members	Design Description Document	W40(2009)	W40(2009)		W40(2009)	
Steering group, Project Team members	Acceptance Test Plan	W49(2009)	W49(2009)		W49(2009)	
Steering group, Project Team members	Test Report	W02(2010)	W02(2010)		W02(2010)	
Customers, Steering group, Project Team members	Final Project Report, Final versions of all project documents	W02(2010)	W02(2010)		W02(2010)	
Customers, Steering group, Project Team members	Final Product (Installation, Source Codes)	W02(2010)	W02(2010)		W02(2010)	

6. Project Experiences

6.1 **Positive Experiences** : This course has been very good and the learning has been immense. The biggest takeaways have been exposure to all phases of software development life-cycle and working as a team in spite of many differences and problems.

6.2 **Improvement Possibilities** : More formal meetings between the project team members. Since it was a local team, the meetings were informal and unplanned. Use of a project management tool would have really helped in planning and tracking progress.

7. Financials

7.1 Project Cost Summary

Planned Cost	\$34,200.00
Actual Cost	

7.2 Work per Member

Members	W40	W41	W42	W43	W44	W45	W46	W47	W48	W49	W50	W51	W52	W53	W01	Total
SSR	13.5	12.75	7.5	30.75	3	14	43.5	3	15.5	14	12	0	0	20	7	189.5
SKC	15.5	18.75	16.5	22.75	3	18	48.5	3	16	12	11	0	0	15	7	207
MUZ	8.5	14.75	11.5	23.75	3	14	16.5	3	8	14	7	0	0	6	5	135
HR	11.5	12.75	7.5	17.75	2	14	13.5	3	9	10	9	0	0	6	5	121
MAJ	11.5	15.75	7.5	19.75	2	14	20.5	4	12	10	12	0	0	10	5	144
MSI	11.5	30.75	16.5	33.75	5	22	41.5	10	18	15	12	0	0	20	8	224
Total	72	102.75	67	148.5	18	96	184	26	78.5	75	63	0	0	77	37	1037.5

7.3 Milestone Metrics

Completed as planned or earlier	Total	Timeliness
12	12	100.00%

7.4 Effort Metrics

Activity	Actual Effort	Planned Effort	Deviation (%)

Effort estimation accuracy (%) <i>(100*(1 - abs(Actual - Planned)/Actual))</i>	%
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