



**Concordia Institute for Information System Engineering**

**INSE 6230 Total Quality Project Management**

**Final Report:**

**Project Management of (E-wallet)**

**Group # 7**

**Submitted By**

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## 1. Introduction:

Nowadays with the growing numbers of credit cards such as Visa, Master card, that people use on a daily basis. It is very demanding to find a way to store all the information of these cards in one place. Therefore, there is a solution which is E wallet software. E wallet software is password management software providing an easy access to the numerous passwords you possess with safety guaranteed. All information can be safely locked inside E-wallet software files with a single password.

This paper presents a project that we have done. This project explains how to develop a software for the E - wallet in terms of project management. This project involves the five project management phases to complete the project successfully. The five phases are initiation, planning, execution, monitoring and the closing phase.

## 2. Initiation phase:

### 2.1. Weighted Decision Matrix for the Project

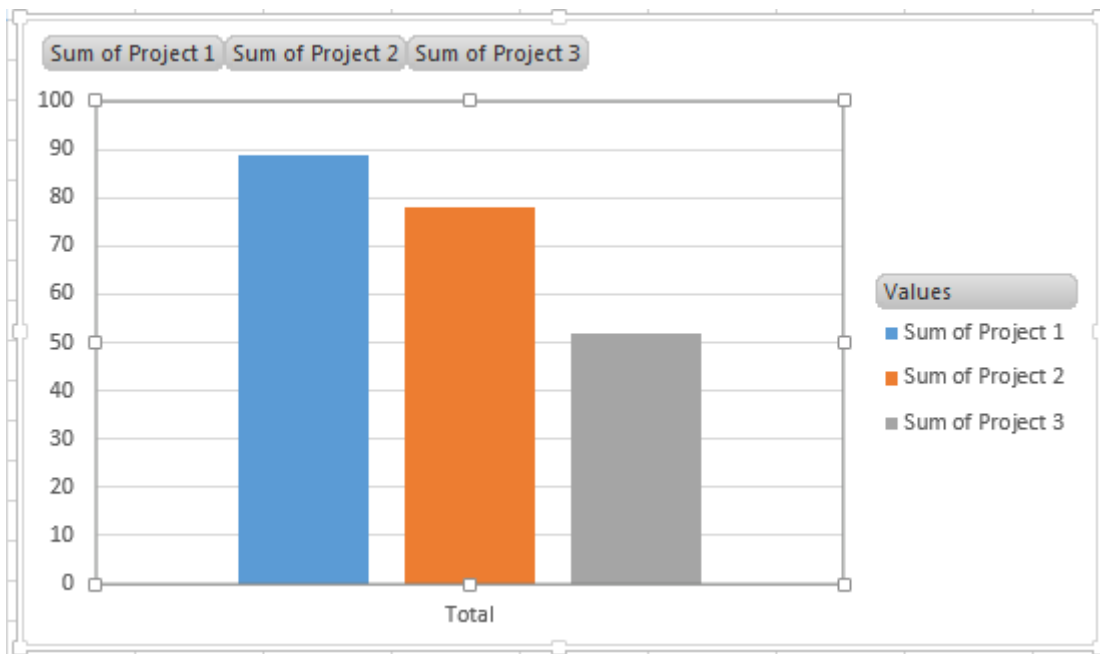
Our company had three ways to implement the easy money transfer/payment and shopping application:

1. Implement e-wallet, an application for mobile phone devices running on various OS.
2. Make a secure website for desktop, laptops and mobile phone devices.
3. Implement electronic money via chip and magnetic strip cards.

The third option included implementation of hardware and installation of hardware devices. Also this method was old and was not a future technology. The first two project options were good in terms of implementation but we emphasized on the first project because it is futuristic and also it is easy to maintain and will return more benefits.

We used the weighted model to make a decision on which project to invest in. the criteria we used was how much is the return we will get, ease of maintenance and security of system.

Criteria	Weight	Project 1	Project 2	Project 3
Capability to implement	20%	100	100	60
The befits returned	25%	80	60	40
Ease of implementation	10%	90	80	60
More security features	20%	90	80	60
Ease of maintenance	10%	80	70	60
Less hardware cost	15%	90	80	40
<b>Weighted Project Scores</b>	<b>100%</b>	89	78	52



## 2.2. SWOT analysis

SWOT analysis has been performed in this project because it assists us to determine the internal strengths of the e-wallet. In addition, this type of analysis is necessary in the initial stage of planning due to the clearness it is made to all issues of project “e-wallet”. In particular, SWOT analysis introduced us to strengths, weaknesses, opportunities and threats of e-wallet.

### Strengths:

There are two beneficiaries of e-wallet are client and merchant, therefore, our project scope covers strengths related to both of them. These strengths are listed as following:

- No need to have your traditional wallet with you, only the application installed in your cell phone and remembering just PIN code.
- Simplicity of use, through purchasing process by few clicks and SMS replay path purchasing process.
- Secure Commerce transactions are provided, where, secure payment method for online purchases as the merchant does not see payment details.
- Enhance possibilities of repeating purchasing.
- Fully secure process.
- Interactive and smooth user interface.
- Ability to manage, add and modify your information anytime.

**Weakness:**

E-wallet project have some weaknesses that must be known and be aware of before it is implemented. These weaknesses might have effects during implementation or post-implementation. They are listed as following:

- Attempts of fraud, failure of technology, possible tracking of individuals, the loss of human interaction and identity theft are considered as main issues which need us to build a high level of security which cost a lot.
- Loss of clients' profiles in case system crash
- The possibility of high pressure on the system during implementation which might slow down its performance.
- E-Wallet performance might be affected by Technological glitches.

**Opportunities:**

E-wallet can offer other opportunities as they are listed below.

- E-wallet supports the new way of purchasing and increase economic return if it is implemented.
- Propose more services, as an example; E-wallet payments can be used for the immediate transfer of funds in a convenient way.
- The E - wallet server will put forward potential for multi -platform support, if it is implemented.

**Threat:**

Threat assumptions also are important task that should be done to avoid, as much as possible, any of them during the implementation period. These threats are shown as following:

- The external threat from hackers by exploiting any technical vulnerability in the e - wallet.
- Misusing it because of the poor awareness of how it is used.
- Difficulty in merging software and hardware in a secure way.
- Merchant acceptance is might be an external issue, if the e - wallet provider does not convince sufficiently merchants and customers about the advantages they will get by using e-wallet.

## 2.3. Scope Statement

<p style="text-align: center;"><b>(Version 01)</b></p> <p><b>Project Title:</b> E-Wallet (ePeram)</p> <p><b>Date:</b> January 07,2013</p>
<p><b>Project Justification:</b></p> <p>The goal is to develop an E-wallet program that can be used electronically on any individual device. This will enable users to save all their cards data on their device and obsolete the use of the physical cards in matter of more easy and secure use till this moment.</p>
<p><b>Product Characteristics and Requirements:</b></p> <ol style="list-style-type: none"><li>1. A Head Team will find the best programing language, web server, database, and internet provider to meet the project requirements.</li><li>2. The Head Team will create three teams: Development team, testing team, and training team.</li><li>3. The developer has to create a staples code for the program and be installable on the most useable platforms in the market.</li><li>4. The testing has to make sure that there aren't any bugs or exactions in the code before the final release.</li><li>5. The training team has to train the retailers on the new product and offer all the help if needed.</li><li>6. A promotional campaign will introduce the software especially in the internet world.</li></ol>
<p><b>Summary of Project Deliverables</b></p> <p><b>Project management-related deliverables:</b> business case study, charters, team contracts, scope statements, WBS, schedule, cost baseline, status reports, final project presentation, final project report, lessons-learned report, and any other documentations required to manage the project.</p> <p><b>Product-related deliverables:</b></p> <ol style="list-style-type: none"><li>1. Design documents.</li><li>2. Promotional Website.</li><li>3. Invitation Emails.</li><li>4. Promotional printings (e.g. flyers).</li><li>5. Features illustrators (posters, sketches).</li><li>6. Platforms versions.</li><li>7. Installation steps.</li></ol>

**Project Success Criteria:**

- All of the documentation must be ready on the release day and all the software versions are installed and ready for demonstration.
- Meeting the indicated budget is successful indicator.
- A promotional campaign to spread the new product.
- The number of companies whom were interested in buying the software after the releasing event.
- Finding some interested sponsors to fund the project.

**(Version 02)****Project Title:** E-Wallet (ePeram)**Date:** February 15,2013**Project Justification:**

The goal is to develop an E-wallet program that can be used electronically on any individual device. This will enable users to save all their cards data on their device and obsolete the use of the physical cards in matter of more easy and secure use till this moment.

**Product Characteristics and Requirements:**

1. A Head Team will find the best programing language, web server, database, and internet provider to meet the project requirements.
2. The Head Team will create three teams: Development team, testing team, and training team.
3. A user friendly GUI to meet the targeted customers (age range from 21 to 60 years old).
4. The development has to create a staple codes for the program and be installable on the most useable platforms in the market.
5. The testing has to make sure that there aren't any bugs or exactions in the code before the final release.
6. The training team has to train the retailers on the new product and offer all the help if needed.
7. A promotional campaign will introduce the software especially in the internet world.

**Summary of Project Deliverables:**

**Project management-related deliverables:** business case study, charters, team contracts, scope statements, WBS, Planning schedule, progress reports, final project presentation, final project report, and any other documentation required to manage the project.



**Product-related deliverables:**

1. Design documents.
2. Promotional Website.
3. Invitation Emails.
4. Promotional printings (e.g. flyers).
5. Features illustrators (posters, sketches).
6. Platform versions.
7. Installation steps.

**Project Success Criteria:**

- All of the documentation must be ready on the release day and all the software versions are installed and ready for demonstration.
- Meeting the indicated budget is successful indicator.
- A promotional campaign to spread the new product.
- The number of companies whom were interested in buying the software after the releasing event.
- Finding some interested sponsors to fund the project.
- Make some trust agreements with some portable device manufactures.

**(Version 03)**

**Project Title:** E-Wallet (ePeram)

**Date:** April 05,2013

**Project Justification:**

The goal is to develop an E-wallet program that can be used electronically on any individual device. This will enable users to save all their card data on their device and obsolete the use of the physical cards in a matter of more easy and secure use till this moment.

**Product Characteristics and Requirements:**

1. A Head Team will find the best programing language, web server, database, and internet provider to meet the project requirements.
2. The Head Team will create three teams: Development team, testing team, and training team.
3. A user friendly GUI to meet the targeted customers ( age range from 21 to 60 years old).
4. The developer has to create a staples code for the program and be installable on the most useable platforms in the market.

5. The testing has to make sure that there aren't any bugs or exactions in the code before the final release.
6. The training team has to train the retailers on the new product and offer all the help if needed.
7. A promotional campaign will introduce the software especially in the internet world.
8. Make a private session for a futuristic customer (e.g. company) to get a feedback about the market.

### **Summary of Project Deliverables**

**Project management-related deliverables:** business case study, charters, team contracts, scope statements, WBS, Planning schedule, progress reports, final project presentation, final project report, and any other documentation required to manage the project.

#### **Product-related deliverables:**

1. Design documents
2. Promotional Website
3. Invitation Emails
4. Promotional printings (e.g. flyers )
5. Features illustrators ( posters, sketches)
6. Platform versions.
7. Installation steps.

#### **Project Success Criteria:**

- All of the documentation must be ready on the release day and all the software versions are installed and ready for demonstration.
- Meeting the indicated budget is successful indicator.
- A promotional campaign to spread the new product.
- The number of companies whom were interested in buying the software after the releasing event.
- Finding some interested sponsors to fund the project.
- Make some trust agreements with some portable device manufactures.
- Schedule a meeting for some promising sponsors whom can help with funding.

## 2.4. Business case

Date: December /20/2012

### 1.0 Introduction/ Background

The increasing of the payment cards make currying these cards more difficult and easy to lose. Also, there are many new ways of using these cards which make it easy to be stolen. So, as a developer team, we believe the E-Wallet is needed for many reasons. First of all, it provides a very fast process of online purchases. Customers do not need to register and fill out a long application. The whole process to complete the purchase that customers just need is to click a single button which is (pay using our E-wallet). Second of all. It offers a high level of security and prevents an electronic theft by reducing the number of websites to be only one website that have the credit card information. Third, E-Wallet gathers all different kinds of credit cards in just one secure place which means no need to carry them anymore. Moreover, all these cards activities can be reviewed in the same protected place.

### 2.0 Business Objective

The main goals are to secure your online payment, make it faster and help customers to reduce the number of curried payment cards. The E-wallet support these goals by storing all payment cards in one secure place, and all the different payment methods go through this secure place by using the Smartphones and the online method. The results of this are reducing the numbers of curried cards, reducing the electronic thefts and save all logs or bill in the same place.

### 3.0 Current Situation and Problem/Opportunity Statement

- Many people are looking for the solution to secure their payment cards.
- Bank companies are interested in this kind of project which give an opportunity: these banks would sign a contract to provide this product for their customers.
- Sign contract with Credit Card companies will increase the cost benefits.

### 4.0 Critical Assumption and Constraints

The assumption of the returned benefits would discovered after five years, and the playback would be in the third year. This project has to match the three important requirements which are making the payment more secure, fast and easy to use.

### 5.0 Analysis of Option and Recommendation

There are two ways to obtain the mentioned opportunities:

- 1- Contracts with Bank companies give the project more credits.
- 2- Contracts with credit card companies give the project more credits.

### 6.0 Preliminary Project Requirements

1. Large and very secure database.

2. Interface
3. Suitable server.
4. Fast internet connection
5. Apps for different phone devices.
6. Learning and support program to educate customers how they use this product.

### **7.0 Budget Estimates and Financial Analysis**

The estimated budget for this project is \$165,000 CAD. Any changes of the project it should be within the budget. This budget is covering everything such as human resources and requirements.

### **8.0 Schedule Estimate**

The estimated time of delivering this project is three months, and any changes in the project should not delay the time of the project delivery.

### **9.0 Potential Risks**

1. Finishing within the estimated time.
2. Meeting the budget.
3. The quality of the final product.
4. Meeting the stakeholders' satisfaction.

## **2.5. Project charter**

Title: A new approach towards a secure and easy bill payment system (ePeram).

Project Start Date: 5/January /2013

Project Finish Date: 21/March/2013

Budget Information: For this project total budget allocated is \$88000. Most of this allocated budget will be used in the most important and hard phases of this project that is the Implementation phase and the Planning phase.

Project Manager: Izadeen Kajman.

Project objective: The objective is to create a new way of payment that can sum up all of the payment cards in one place to be easy to access each time. So by making an application using the base of the e Wallet system we are going to make an advance payment system that would be easy to use and would be very secure on the network (no attacks possible on the credentials of the users)

Toward success and approaches

- Providing all up to date hardware configurations and fully paid software's for the developers so that they can work in a hassle free environment.
- Meeting specified budget and not getting above it.
- Stable software life cycle for successful completion of project.
- Securing and making as easy as possible for the clients to use the service would be the key focus.

- Proper mind reading of customers for the service before implementing the project.
- Online survey on E wallet service before developing the service in order to forecast the future revenue and have knowledge about the customer need.
- Determining the success measure for the project.
- Studying every aspect of the E wallet and try to implement, something better than that for the customers
- Getting all work done in time and should stay in budget limits as stated above.
- Proper testing tools for bug removal.
- After sale maintenance and feedback should be considered very important.

#### **Roles and Responsibilities:**

<b>Role</b>	<b>Name</b>	<b>Organization/ Position</b>	<b>Contact Information</b>
Project manager	Izadeen	Manager	Izadeen@live.com
Project supervisor	Abdulaziz	Bank Director	a_s_q2005@hotmail.com
Design consultant	Ehab	Web Designer	ehab.m.ammar@gmail.com
Programming consultant	Ravinder	Software developer	mailme2rv@gmail.com
Security consultant	Abdullah,	Crime investigation	mr.albarakati@gmail.com
Applications support specialist	Jagandeep	Technical and System training	jagandeep.concordia@gmail.com

#### **Sign-off:**

*Izadeen*

*Abdullah*

*Abdulaziz*

*Ravinder*

*Ehab*

*Jagandeep*

### 3. Planning phase:

#### 3.1. Team contract

##### Project Team Members Names and Sign-off:

Name	Sign-off on Team Contract
Izadeen	<i>Izadeen</i>
Abdulaziz	<i>Abdulaziz</i>
Ehab	<i>Ehab</i>
Ravinder	<i>Ravinder</i>
Abdullah,	<i>Abdullah,</i>
Jagandeep	<i>Jagandeep</i>

##### **Code of Conduct:** As a team, we agreed on:

- Doing the work that we are capable to do and knowing the how of it.
- Being honest and reasonable in our report scope and how to plan it including cost and schedule.
- Focusing on all tasks as a whole to maintain static progress, not only specific task.
- Representing a good idea on Concordia University and its great programs.
- Update all the members with any changes in the plan or any other concerns.
- Follow the project phases till achievement.

##### **Participation:** we agreed on:

- Sharing and opening our minds to each other to gain equality of understanding.
- Persuade every member to explain their opinions, and if there are any conflicts, the decision will be depending on democracy (voting).
- Each member will have his own task besides the contributing in all the tasks equally.
- Deadlines must be respected for all individual tasks, agreeing is a must.
- In the case of things take the wrong way, discuss will make everything better.

##### **Communication:** we agreed:

- Understanding is the beginning then how to do is eventually will come.
- Always make it crystal clear.
- To listen, practice and improve our communication skills.
- Narrow our discussions to the focus point as much as possible.

- Visual effects will be one important factor in our plan.
- Try to find the cross points between team members culture background.
- Create a team group email to share our documents in an easy way or use one of the file sharing clouds.

**Problem Solving:** we agreed:

- Motivate every member to brain storm his ideas to discuss it.
- Think out of the box concept is totally our favorite method.
- Integrate all the ideas together to come with the best of all of them.
- Try to use as much as we can of up to date tools to achieve the most.
- Take a look at the previous similar projects to gain more experience.
- We have to be creative about our way to solve any problem we reach.

**Meeting strategy:** we agreed:

- Be on time is every important and ending in time is important too.
- To maintain accuracy, two meetings per week are going to be set a certain time to begin and to end and were as follow (Saturdays from 2:00pm 3:30 pm, Wednesdays from 4:00 pm 5:00 pm )
- Extra meetings can be held if we need more time on the project.
- Meetings are obligatory on each member except individuals who has an excuses submitted to the team coordinator (Izadeen Kajman).

### 3.2. Kick-off meeting

**Date:** January 4, 2013

**Meeting Objective:** the purpose of the kick off meeting is to stand on the project objective, and clarify project objectives to team members in order to begin the project in the right way.

**Agenda:**

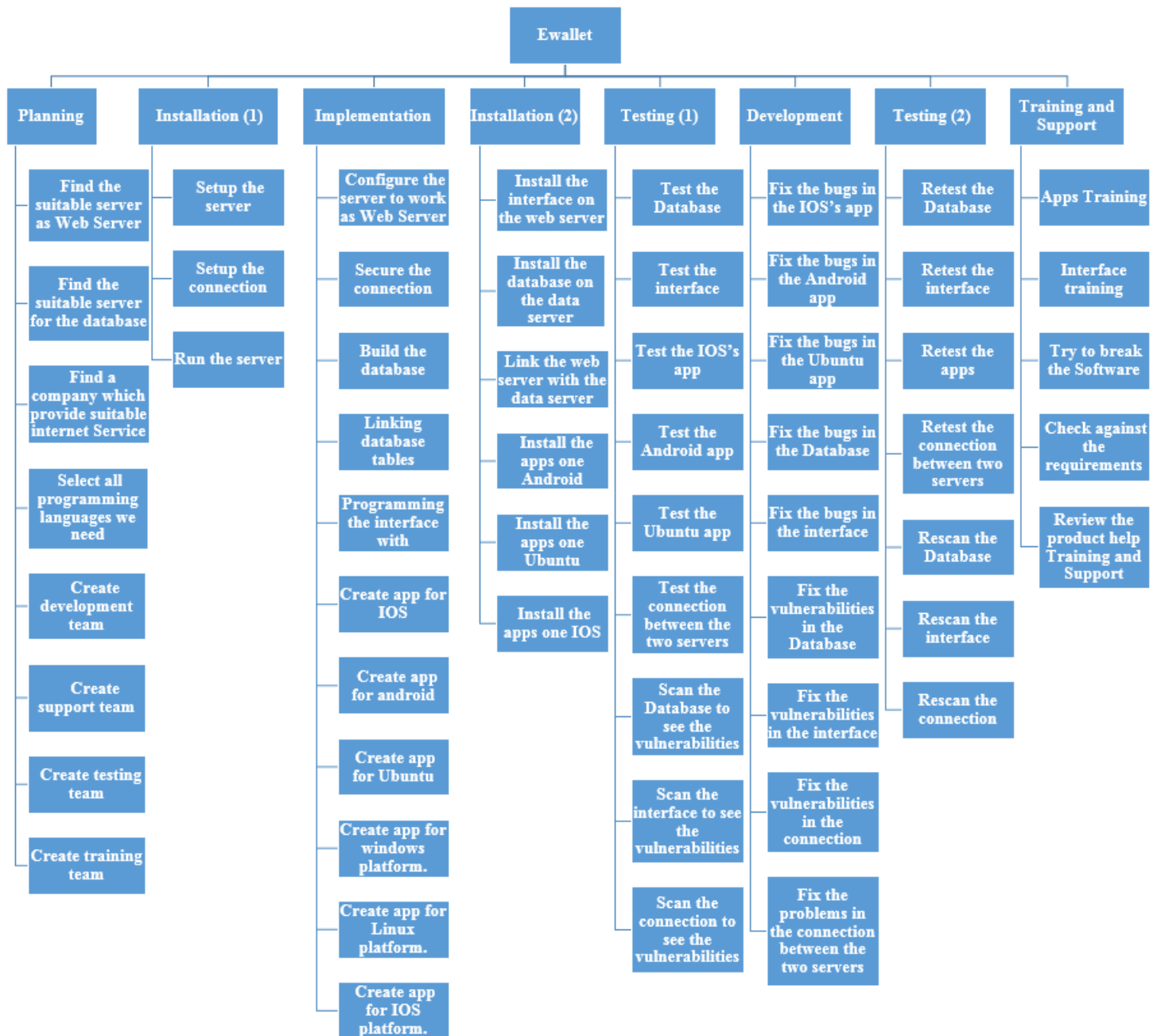
- Introduce team member to each other.
- Discuss project objectives
- Review of project-related documents (i.e. Business case, project request, contract)
- Determine project process
- Discussion of project requirements.
- Discussion of project scope, time, and cost goals.
- Discussion of tasks priority
- Assigning each action item to each team member.

Action Item	Assigned to	Due date
Planning and determining project requirement	Sales and marketing director	January 16 <sup>th</sup> , 2013
Installing and setting up servers and connection	Installation team	February 20 <sup>th</sup> , 2013
Implementing and developing software	Development team	March 6 <sup>th</sup> , 2013
Testing and fixing vulnerabilities	Testing and development team	March 11 <sup>th</sup> , 2013
Training sessions	Training team	March 15 <sup>th</sup> , 2013

**Next meeting date and time:** January 27th, 2013



### 3.3. Work Breakdown Structure (WBS)



### 3.4. Gantt chart

Appendix 1

### 3.5. Milestone list

Milestone	Date	Status	Responsible	Issues/Comments
Project charter approved and signed	Mon7-01-13	Complete	Project sponsor	Went very well
Create training team	Wed1/16/13	Complete		
Create app for IOS platform.	Fri 2/15/13	Complete		
Rescuing the connection	Fri 2/22/13	Not Complete	Testing team	

### 3.6. Activity and resource requirement list

See Appendix # 2

### 3.7. Activity cost estimates

See Appendix # 3

### 3.8. Network diagram

See Appendix # 4

### 3.9. Quality Management and Assurance Plan

The document is being made as a guideline to keep up the high quality of the E-wallet software developed by our company during the Lifecycle of the project. Quality management and quality assurance is done by our “QA” i.e. Quality Assurance team, which consists of highly experienced professionals from management and technical background. This quality management plan defines guidelines to follow, standards to be maintained and quality metrics to be attained before each milestone and the final release of the product. This would assure that the stakeholders will experience complete satisfaction.

#### Introduction

The aim of this plan is to check and make sure that the quality of the product milestones achieved is up to the mark and in a timely fashion. The quality of the product is managed and assured at all

stages of its Lifecycle by following the guidelines of the programming language constructs and following the SRS document prepared in the requirement analysis and planning phase. Assuring quality is always important for any project, as it keeps the project on right track with respect to time, cost and stakeholders' satisfaction. In the end when the final version of the product is delivered, the success depends on customer satisfaction, SRS fulfillment and proper error free functioning of the software product.

### **Purpose**

The purpose of the Quality Assurance plan is to assure that all cost, time and quality constraints have been followed keeping stakeholders' satisfaction as the final goal.

### **Policy Statement**

Our organization has been known for a quality product delivering company and gives utmost importance to stakeholder satisfaction. The product we deliver should be a success in terms of functionality and stakeholders' satisfaction.

### **Scope**

The scope of the Quality Assurance plan is to ensure that the proper software Lifecycle model have been followed and at each stage the proper documentation has been done. It assures the following:

- The SRS document defines the scope and functionality of the software
- Documentation is done in timely and detailed fashion during the planning phase
- Programming language is followed during development phase
- Function module analysis has been done for each module developed
- Proper database analysis has been done
- Second version of SRS is being made and a problem-solution document has been made
- A system developed is tested thoroughly by QA team using different testing techniques (black-box and white box, system testing , integration testing, use case approach etc)

### **Organizational structure**

The organization is hierarchical in nature and execution. There are different teams working on different projects at a time, also we have expert dedicated teams working on solving technical problems encountered during any project development phase. Each project has a project manager and a team of highly skilled and enthusiastic professionals, dedicated to achieve success during any project given to them. A quality assurance team tracks record of all the projects and assures proper direction of progress and quality simultaneously. Project managers report to a senior manager and are advised to plan ahead with their teams.

### **3.10. Change Management Plan**

Change management plan is needed in order to succeed in the future. Change is inevitable and should occur so companies do not stay stagnant and continue seeking all the time to same activities. On the other words, Change management training is needed in order to succeed in the long run. To ensure that the project is going on the right way, we have to re-evaluate continually the activities in the project. The changes could impact the time and the cost of the project, so changes should be chosen very carefully and reasonable.

In this project there are certain techniques that have been applied to achieve the goals of the project as following.

#### **Evaluation Process**

Evaluation would be done by software inspection and testing process. The product is checked against the SRS and also on a benchmarking basis to previous similar project with the same stakeholders and the same goals. Evaluation is done by an Experienced Team which includes managers as well as technical members from quality and inspection department.

#### **Process Improvement**

The walk through and review procedures make a foundation for process improvements. In case any problems or issues are found the PM acts accordingly to sort out the issue. Continuous improvement is what has to be done if in anywhere in the project the PM sees that there is a deficiency in the performance or delay of the project tasks. PM always keeps in mind to improve the quality of the overall project. Customer feedback and stakeholder's response and suggestions are also very important source to look for improvement areas.

#### **Review and Audit Process**

A review point is important to look back at the quality of the quality management plan implementation. We propose to do a review after the quality checklists described above. This would help the PM ensure the proper progress (quality progress) of the project plan.

Quality related check lists are to be checked off routinely, time schedule, milestone achieved, individual team progress and professional feedback is also a critical review procedure. Project managers are advised to document problems occurred and lessons learned at each review, and audit stage of the project. This helps to improve under similar circumstances encountered during the same or different project

#### **Required Documentation**

For a successful completion of quality management plan, the project manager would have to access the previous similar project's documentations. PM must also be provided with contact documents to stakeholders so that he/she can ensure the project requirements and goals to avoid ambiguity. Any other documents that are necessary to assist the implementation of quality management should be provided to the PM such as quality checklist, quality standards to follow, SRS, work performance log etc.

### 3.11. Risk Register

R1: Estimating is under the actual cost of the requirements.

R2: Cost of implementing the security in the applications.

R3: More recourses are needed.

R4: More equipment is needed.

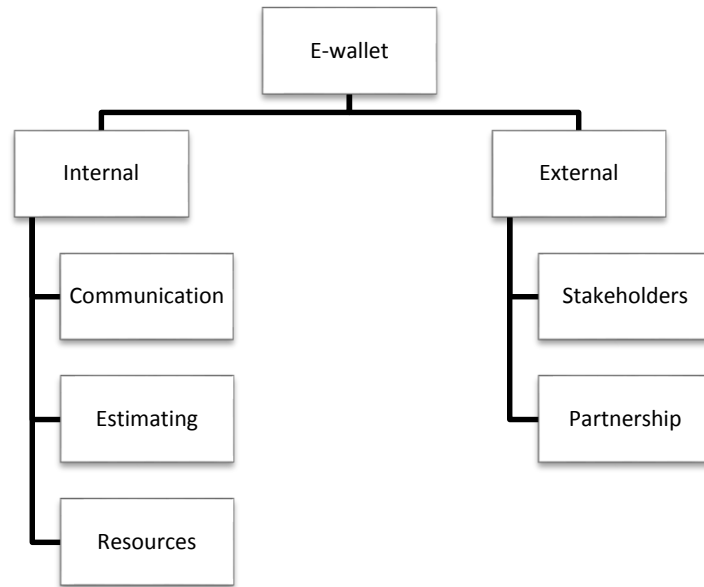
R5: customers' satisfaction and acceptance.

R6: Advertising cost.

R7: Business partners acceptance.

No.	Risk	Description	Root Cause	Potential Responses	Risk Owner	Probability	Impact
R2	Cost overrun	Implementing security cost a lot	Stop the project	Create team who specializes in information security.	Installation team	High	High
R4	Cost overrun	The used equipment may change because of new technologies	Stop the project	Relay on expert to advise if the equipment able to upgrade without change the whole things	Installation team	High	Medium
R3	Schedule delay	If the applications have bugs after the second test, it will cause delays.	Stop the project	Assign new members in the testing team	Manger	Medium	Low
R1	Cost overrun	The exact price is unknown	Increase the cost	Relay on expert to review the estimating	Installation team	Medium	Low
R7	Quality	Stockholders' satisfaction	Level of acceptance	Progress report after each phase	Sales and marketing director	Medium	Medium
R6	Cost overrun	Advertising cost unknown	Increase the cost	Make a contract with a company	Manger	Medium	Medium
R5	Quality	Stockholders' satisfaction	Level of acceptance	Progress report after each phase	Sales and marketing director	Medium	Medium

### 3.12. Risk Breakdown Structure



### 3.13. Probability Impact Matrix

Probability	High		R4	R2
	Medium	R3,R1	R7,R6,R5	
	Low			
		Low	Medium	High
		Impact		

### **3.14. Quality metric**

As in all project cost, time and quality are an important metric, our project has a limited budget and scope. Extending the scope also extends the budget and time so meeting this budget and time is a quality metric. The time of delivery of the tasks is as in the WBS of the project. Both budget and time metrics can be tracked using “Review and Audit Process” which compares planned budget and time with the actual. These can serve as an indicator to the PM as to how good his/her project is performing. To measure the quality of the software we are developing our team has agreed to follow a Quality Characteristic Model. In our model there are 6 main quality characteristics, namely: Functionality, Reliability, Usability, Efficiency, Maintainability and Portability. Our team opted for this model as it considers the complete scope of the software project. The most difficult part is of course to find the right metrics to measure each characteristics and their associated sub characteristics but our team has tried to keep all aspects of the software quality and Project metrics in mind. The quality characteristics are described below:

#### **Functionality**

- Suitability
- Accurateness
- Interoperability
- Compliance
- Security

#### **Reliability**

- Maturity
- Recoverability

#### **Usability**

- Understandability
- Learnability

#### **Maintainability**

- Analyzability
- Changeability
- Stability
- Testability

## **Portability**

- Adaptability
- Install ability
- Conformance
- Replaceability

## **4. Execution phase:**

### **4.1. Work performance information**

Deliverables - Some of project deliverables samples are in encased folder

### **Status/Progress Report (1):**

<b>Reporting period:</b> 5 Jan, 2013 - Mon 2/11/13
<b>Work completed during this interval:</b> <ul style="list-style-type: none"><li>• In the beginning, we created our development and support, testing and training teams as the successes of the project depends on these attributes.</li><li>• For storing information regarding E wallet suitable database and web server were selected.</li><li>• Installation of the server was done as follows ( Setup, connection and running of the server)</li></ul>
<b>Work to complete next reporting period:</b> <ul style="list-style-type: none"><li>• We will configure the server to work as a server, create apps for all operation systems, install interface, database on web server etc.</li><li>• Proper testing tools will be used to test every aspect of the E Wallet system and if bugs found corrective measures should be adopted to correct that bugs and again retesting of the system\m would be done to ensure 100% performance</li><li>• Provide an appropriate interface and app training</li></ul>
<b>What's going well and why:</b> <ul style="list-style-type: none"><li>• We got enough information about our project and whatever we are trying to implement, it's going in a positive manner.</li><li>• We got an excellent response from the users when we did a survey regarding E wallet.</li></ul>



**What's not going well and why:**

- Some problems with database connectivity are encountered when the load is high on the server and our team is working to solve this problem
- Some differences in development team members but going good with them.

**Suggestions:**

- Proper time management and cost management should be done so as to complete this project while staying in limits.

**Project changes:**

- Some changes in the development team are done as some of the programmer were cloning the programs for the system and this is not accepted.
- Time duration given for the implementation phase increased, so that the number of bugs should be as less as possible.

**Status/Progress Report (2):**

**Reporting Period:** Mon 2/11/13- Wed 2/27/13

**Work completed this reporting period:**

- Executable code is almost developed and was running without any error.
- All staff members are aware of their tasks to be completed during the whole project.
- Adequate time was given to this phase as the quality assurance of the product is the key goal to be fulfilled along with many deliverable.

**Work to complete next reporting period:**

- Our project will enter the testing phase, along with the monitoring phase side by side being in process.
- Our product will be tested with many different work environment in order to check its validity for that system environment.

**What's going well and why:**

Due to the proper distribution of the tasks there is a good planned and very good going of the execution

<ul style="list-style-type: none"> <li>• Due to good trained programmer this project is in time and not out of scope.</li> </ul>
<b>What's not going well and why:</b> <ul style="list-style-type: none"> <li>• There is some security problem regarding the crypto systems</li> </ul>
<b>Suggestions/Issues:</b> <ul style="list-style-type: none"> <li>• Some good ethical hackers are hired in order to test the security of the developing system.</li> </ul>
<b>Project changes</b> <ul style="list-style-type: none"> <li>• No changes were made to the project during this period.</li> </ul>

### **Status/Progress Report (3):**

<b>Reporting Period:</b> Wed 2/27/13- Thu 3/21/13
<b>Work completed this reporting period:</b> <ul style="list-style-type: none"> <li>• We are in the testing phases the project our application is being tested with different work environment</li> <li>• Bugs tracking was also done in order to improve the performance of the product-related</li> <li>• We are just in the closing phase in a while after the testing is done.</li> </ul>
<b>Work to complete next reporting period:</b> <ul style="list-style-type: none"> <li>• The project should be closed by this date.</li> </ul>
<b>What's going well and why:</b> <ul style="list-style-type: none"> <li>• Due to the proper coordination of the staff, stakeholders the project will finish as a success</li> <li>• Testing was successful on all the operating systems</li> </ul>
<b>What's not going well and why:</b> <ul style="list-style-type: none"> <li>• Security is the basic problem which is still a big issues as all the credentials are to be saved in the database and should not be compromised at all cost</li> </ul>
<b>Suggestions/Issues:</b> <ul style="list-style-type: none"> <li>• No suggestions</li> </ul>
<b>Project changes</b> <ul style="list-style-type: none"> <li>• No changes were done during this period of time.</li> </ul>

## 4.2. Quality Assurance Checklist

The initial quality of releasing software contributes to reputation, customer retention, bug or issue fixing cycles and overall cost of ownership. Validating and ensuring “Ultimate Quality” using “Quality Assurance Checklist” is an essential step of the software life - cycle. Following is a list of points that were included and given importance while ensuring the quality of the project and product.

1. Start of Project- Setup Core Roles of QA-Practice
  - Appoint a Test (Quality Assurance) lead; that is responsible for validating an issue free solution.
  - Appoint a test lead from the design/development team [development team has a tasting too].
  - Identify Business-Analysts [that are responsible for defining proper requirements; so, QA can test for expected quality of delivery].
  - Identify Business Product Owners [that is responsible for articulating the change, confirming the understanding and validating final solution].
  - Depending on the project, you may also identify various “Subject Matter Experts”; that must contribute to final quality [from both IT and Business].
2. During Project-Core processes needed for solution quality
  - Identify all stakeholders and a strategy to engage them [part of quality is what they say it is].
  - Establish a process for requirement gathering and validating gathered requirements.
  - QA team is responsible for defining tests to validate requirements.
  - Agree on types of testing to be done by the development team [which is different from the QA team testing].
  - Agree on types of testing to be done by QA team.
  - Agree on types of testing to be done by business [product owners].
  - Agree on types of testing or validating to be done by identifying subject matter experts.
  - Identify a “User Experience” lead [that is chasing user satisfaction. Such as Documentation, Training, usability etc.]
3. Business Analyst responsibilities related to Quality
  - Business Analysts are to clearly document and present Vision, Scope and Requirements.
  - Understand acceptance criteria [avoid the cost of unnecessary features, development, testing etc.]
  - Take the time to clearly communicate requirements to designers, developers, testers etc.
  - [Involve non business analysts in client meetings early]
  - Validate solution against original requirements SRS.

#### 4. Design/Development Teams Quality related Responsibilities

- Solution Architect should identify and maintain an open list of planned deliverable [documents, code, deployment scripts etc.].
- Development must test deliverables thoroughly prior to others testing.
- [Unit Tests – testing individual software components (automating will help testing consistency).]
- [Integration Testing – making sure complete integrated solution works (automating will help testing consistency).]
- Communicate changes in the latest release to QA.
- Setup needed testing environments.
- Sign off by Design/Development lead; as a release is verified.

#### 5. Test Team Responsibilities

- Test lead should create a “Test Plan” for funding and resource assigning (dates, people, locations etc.).
- QA team members to define test-cases based on collecting requirements [functional and non-functional].
- Record Bugs/issues and pass it back to development
- Provide periodic test status reports
- Record known issues that will not be fixed [document any workarounds].
- Complete “Requirement Traceability Matrix”
- Produce a “Release-Quality” report prior to approval [not all releases are perfect].
- Sign off by QA lead.

#### 6. Test Preparation

- Decide on the tools needed for testing... install.
- Decide a process for bug/issue recording, communication and analysis.
- [Development Team] Setup needed test environments
- Create test cases and get approval.
- Clearly specify test platforms used.
- Setup “Requirement Traceability Matrix”.

#### 7. User Experience

- User experience specialists are to track down all possible user-categories and ensure satisfaction.

- User specialists are to chase end-user experience, such as documentation, training, usability etc.
  - Don't forget all types of users, operations, helpdesk, regulators, auditors, specific subject-matter-experts etc.
8. User Acceptance Testing
- Enlist needed business users and get a commitment
  - Assist business in creating test cases
  - Facilitate UAT
  - Conduct a post-test survey to gather sentiment
  - Sign off by business prior to release.
9. Post Deployment and Quality
- Where possible, test system in production.
  - Record post production bugs/Issues and resolution for later analysis.
  - Analyze post production bugs/issues for root causes; and implement corrective project Lifecycle processes.
10. Various “Development Lifecycle Gates” contributing to the final quality
- “Vision and Scope” (and charter) review by IT and approval by client.
  - Report pending change of operations early.
  - Approve business requirements [IT and Client].
  - Approve Functional Specification.
  - Approve Solution Architecture.
  - Approve plans deliverable [code, solution, documentation, training etc.].
  - Review [IT] and approve [client] Project Plans [Various Plans including test plan].
  - “Scope to Solution” comparison by QA and Business Analysts.
  - IT to validate and approve the final development deliverable as “Scope Completed”.
  - Approval by QA Team.
  - Business to approve UAT.
  - IT to approve “Release readiness” of all deliverables.
  - Client to accept final release and roadmap of next-steps.
  - Post deployment, verification and approval of “Solution Stability” in production.
  - All future maintenance funding is planned for [licenses etc.]
  - Final release to be signed-off by each lead.
  - Support team to accept product from the project team.

### 4.3. Milestone Report

Milestone	Date	Status	Responsible	Issues/Comments
Project charter approved and signed	Mon7-01-13	Complete	Project sponsor	Went very well
Create training team	Wed1/16/13	Complete		
Create app for IOS platform.	Fri 2/15/13	Complete		
Rescuing the connection	Fri 3/1/13	Complete	Testing team	Review with sponsor and team

## 5. Monitoring and controlling phase:

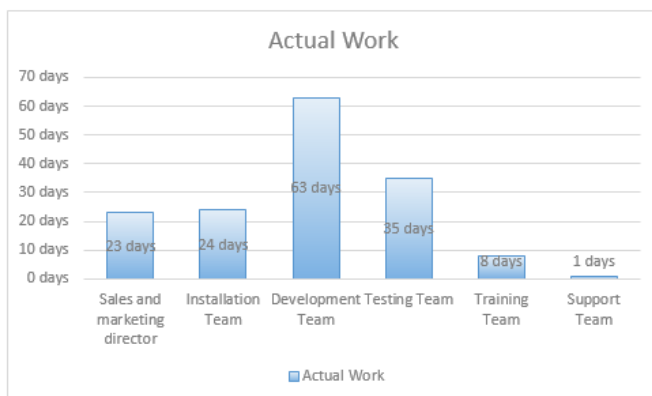
### 5.1. Measure project performance

Due to the fact that to develop a software needs to have more than one team working on that software. In our case we have six teams working together to develop an E-wallet software. The development team takes time from the project more than all the teams in the project and that was expected from the beginning of the project. On the other hand, supporting team takes time less than and team in the project. The cost of the resources is divided between the teams and every team is responsible about the cost of resources that is used. The figure below is showing how the cost and the time is spent on the project

## OVERALLOCATED RESOURCES

#### WORK STATUS

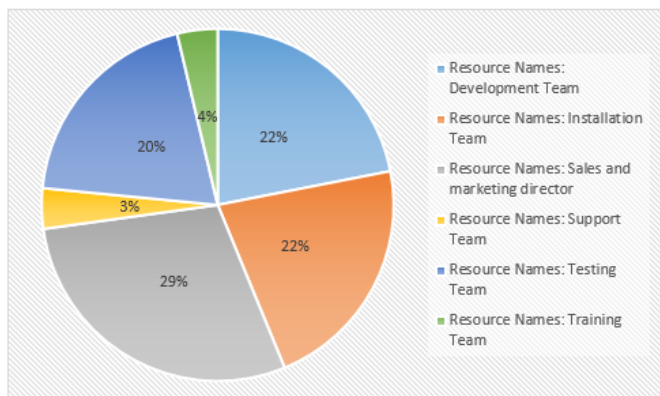
Work status for overallocated resources.



#### Resources Cost Usage

Surplus work assigned to overallocated resources. To resolve overallocations use

[Team Planner View](#)



## 5.2. Change requests and recommended actions

<b>Change Request (1)</b>
Cost should be increased to reach a higher level of security Submitted: January 22/2013
<b>Change Category:</b> cost
<b>Description of change requested:</b> The cost that was estimated to Secure the connection is not that enough. To reach a higher level of security there is 2000\$ should be added.
<b>Events that made this change necessary or desirable:</b> It is requested that the cost of Securing the connection should be changed from \$5000 to \$7000 due to many reasons. The level of security it is very important due to that fact that we deal with very sensitive information. Moreover any vulnerability will affect the whole Software at the end. Consequently, the order should be placed early.
<b>Justification for the change/why it is needed/ desired to continue/complete the project:</b> Knowing that the security issue is very important, this makes us focus on security as much as we can.
<b>Impact of the proposed change on:</b> <ul style="list-style-type: none"><li>• <b>Scope:</b> No</li><li>• <b>Schedule:</b> no</li><li>• <b>Cost:</b> yes. \$2000 will be added to the final cost of the project</li><li>• <b>Staffing:</b> No</li><li>• <b>Risk:</b> No</li><li>• <b>Other:</b> No</li></ul>
<b>Suggested implementation if the change request is approved:</b> The development team and support team should be informed about the change in the security level

<b>Change Request (2)</b>
The advertising should be started earlier Submitted: March 12/2013
<b>Change Category:</b> Schedule
<b>Description of change requested:</b> The advertising for the project should be started from the beginning of the project which means two months before.
<b>Events that made this change necessary or desirable:</b> Due to the fact that the number of people who interested to use the software should be not too small. Therefore, starting the advertising in earlier time gives the chance for more people to know about the product.
<b>Justification for the change/why it is needed/ desired to continue/complete the project:</b>

Nowadays, advertising issues make the difference between the products, people are more likely to trust the product that has been advertising more than one month. On the other hand, to ensure we should focus on advertising as a major issue.

**Impact of the proposed change on:**

- **Scope:** No
- **Schedule:** The advertising is not a predecessor of any activity , so any time changing on this activity will not affect the time of the project ( delay the project )
- **Cost:** no
- **Staffing:** No
- **Risk:** No
- **Other:** No

**Suggested implementation if the change request is approved:**

The advertising team should be informed about the change in the starting Date advertising.

### 5.3. Noncompliance Reporting Procedures:

Noncompliance issues have to be reported to the PM. Reporting and analyzing the causes of non-compliance is done using cause-effect diagrams. Also it is up to the discretion of the PM to use the most proper tools to analyze any problem occurrence as he/she sees best fit. We also used to issue reports and logs to keep notifying about noncompliance issues.

## 6. Project closing phase:

The purpose of this report is to show how and what are the results of creating an E-Wallet software that is compatible with the most common platform project. The thematic key is produce a documentation of what is accomplished, cost and functionalities related to this project, enhancements and usability and benefits of the software.

### General Project Information:

	Description
Project Name	E-Wallet (ePeram)
Project Description	To create a unique software with an unordinary functionalities to serve the clients to make their life more practical. Using whatever portable device, whatever platform or OS you are using, you will forget about your traditional wallet. Having a high level of security is the main focus and a main attraction for the customers.
Project Manager	Izadeen Kajman
Project Sponsor	BMO Bank

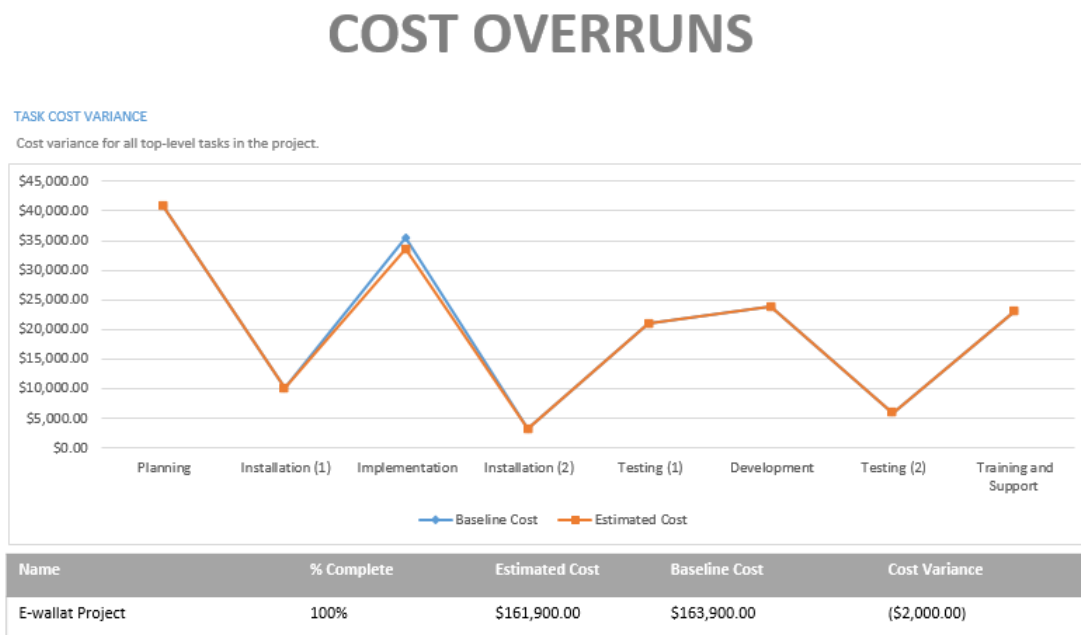


## 6.1. Project Closure documents

With a basic aim of providing more flexibility, ease we tried to make an application called ePeram which is basically an e-wallet which contain all the information regarding credit cards, assurance, banks etc. So that, one can buy stuff do whatever one wants to just use this application. There were many issues encountered during the projects but the most important and highly prioritized issues were the security. As all the user names and passwords have to be secure and confidential so we need to have a secure database. Ethical hackers were given many tasks for securing our network from getting being hacked. Many cryptographically updates were made during the project so as to make the database more secure. We basically tried to concentrate on many aspects that help us in achieving our desired goal firstly we tried to be in the budget but due to security reasons in our project we made a change request to increase some budget and was ok, secondly we tried to be on time, time was a big issue in our project but was managed and lastly the resources we managed all resources to ensure a good output. Proper training was provided to ensure quality.

## 6.2. Final project report

In this project, we used bottom –up technique to get out the cost of our project. The figure below gives a focus scope about the preferred budget disruption for cost over the project milestones.



The table below shows some details about the project

	Estimated Cost	Actual	Variance
Start Date	07/01/2013	07/01/2013	0days
Finish Date	21/13/2012	27/13/2012	6days
Cost	\$161,900.00	\$163,900.00	\$2000

### 6.3. Lessons Learned Document

**Project Name:** ePeram

**Project Sponsor:** BMO Bank

**Project Manager:** Izadeen

**Project Dates:** 07/01.2013

**Final Budget:** \$165.000

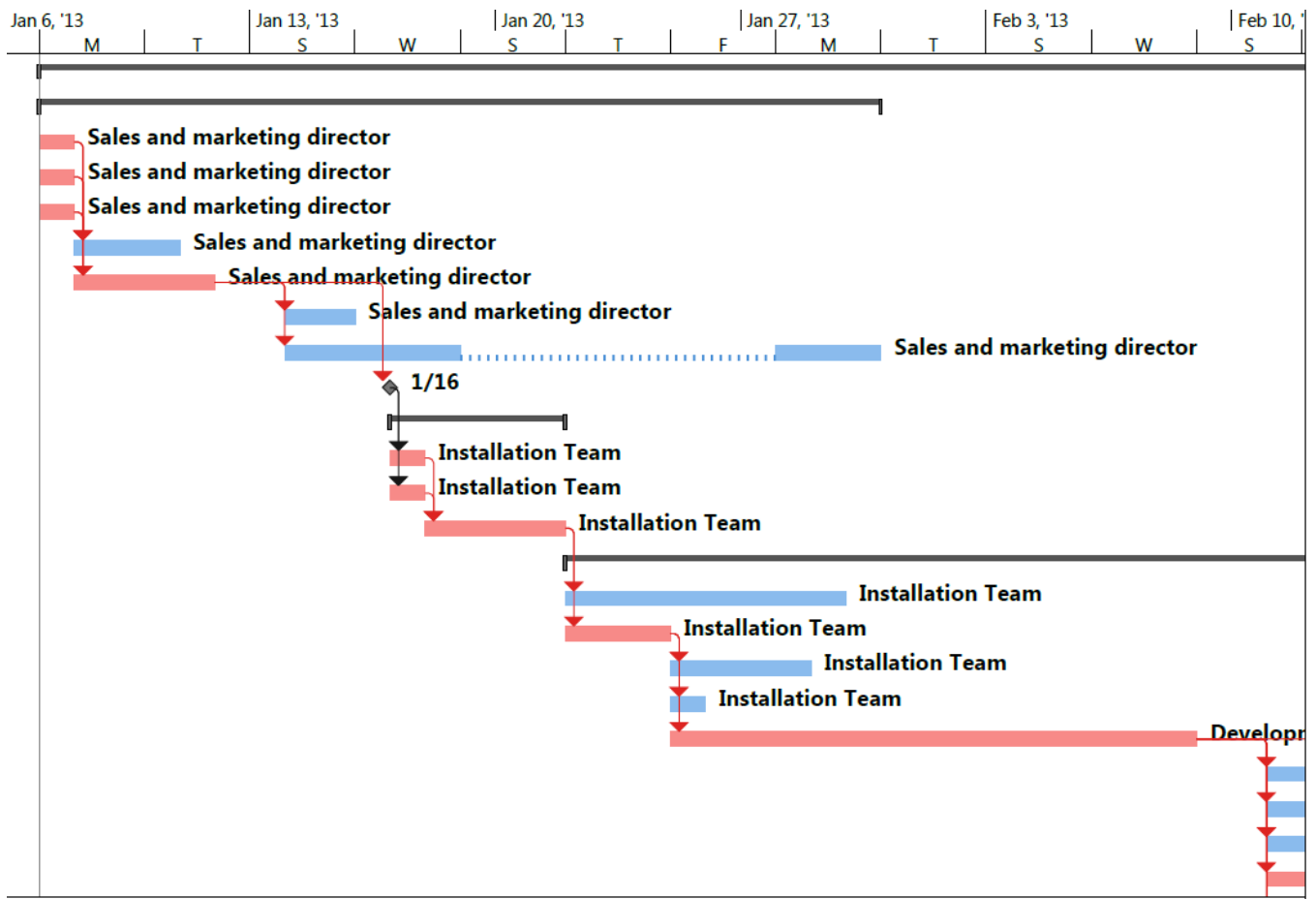
- Our project was on time but was a bit over budget for which a change request was made in the project. Our project met all the technical as well as a security requirement.
- Basically our success criteria were to be in the budget, be under time hiring technically and mentally sound staff proper publicity of our application, and most importantly the security should not be compromised at any cost of our database.
- Managing this project taught many aspects like:
  - Change control (implementation, handling, managing, etc)
  - Communication (within the team, team to project leader, team to stakeholders, etc.)
  - Decision making (timely, informed, acceptance of decision by team, etc.)
  - Documentation of work (defined, adequate, complete, archived, etc)
  - Initial plans, budget, and schedules (accuracy, conveyed to team, followed, etc)
  - Mistakes (root cause, corrective action, fallout, etc)
  - Team dynamics (teamwork, hand offs, communication, efficiency, etc)
- Important phases like implementation, testing were going very well we didn't encounter any sort of problem.
- Implementing security was a big challenge but we tackled.
- All problems that we encountered in this project we will take care of that in our next project, basically proper scheduling and cost management we are going to take care as they are very crucial for a successful project

## 7. Appendices

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## Appendix 1: Gantt Chart






## Appendix 2: Activity and resource requirement list

ID	Task Name	Duration	Start	Predecessors	Resource Names
1	<b>E-wallat Project</b>	<b>54 days</b>	<b>Mon 1/7/13</b>	--	
2	<b>Planning</b>	<b>8 days</b>	<b>Mon 1/7/13</b>	--	
3	Find the suitable server as Web Server	1 day	Mon 1/7/13	--	Sales and marketing director
4	Find the suitable server for the database	1 day	Mon 1/7/13	--	Sales and marketing director
5	Find a company which provide suitable internet Service	1 day	Mon 1/7/13	--	Sales and marketing director
6	Select all programming languages we need	3 days	Tue 1/8/13	3,4,5	Sales and marketing director
7	Create development team	4 days	Tue 1/8/13	3,4,5	Sales and marketing director
8	Create support team	2 days	Mon 1/14/13	7	Sales and marketing director
9	Create testing team	3 days	Mon 1/14/13	7	Sales and marketing director
10	Create training team	3 days	Mon 1/14/13	7	Sales and marketing director
11	<b>Installation (1)</b>	<b>3 days</b>	<b>Thu 1/17/13</b>	--	
12	Setup the server	1 day	Thu 1/17/13	10	Installation Team
13	Setup the connection	1 day	Thu 1/17/13	10	Installation Team
14	Run the server	2 days	Fri 1/18/13	13,12	Installation Team
15	<b>Implementation</b>	<b>19 days</b>	<b>Tue 1/22/13</b>	--	
16	Configure the server to work as Web Server	6 days	Tue 1/22/13	14	Installation Team
17	Secure the connection	3 days	Tue 1/22/13	14	Installation Team
18	Build the database	2 days	Fri 1/25/13	17	Installation Team
19	Linking database tables	1 day	Fri 1/25/13	17	Installation Team
20	Programming the interface with	11 days	Fri 1/25/13	17	Development Team
21	Create app for IOS	4 days	Mon 2/11/13	20	Development Team
22	Create app for android	4 days	Mon 2/11/13	20	Development Team
23	Create app for Ubuntu	4 days	Mon 2/11/13	20	Development Team
24	Create app for windows platform.	5 days	Mon 2/11/13	20	Development Team
25	Create app for Linux platform.	5 days	Mon 2/11/13	20	Development Team
26	Create app for IOS platform.	5 days	Mon 2/11/13	20	Development Team
27	<b>Installation (2)</b>	<b>4 days</b>	<b>Fri 2/15/13</b>	--	
28	Install the interface on the web server	2 days	Mon 2/18/13	21,22,23,24,25,26	Installation Team
29	Install the database on the data server	2 days	Mon 2/18/13	21,22,23,24,25,26	Installation Team
30	Link the web server with the data server	1 day	Wed 2/20/13	29	Installation Team
31	Install the apps one Android	1 day	Fri 2/15/13	22	Installation Team
32	Install the apps one Ubuntu	1 day	Fri 2/15/13	23	Installation Team
33	Install the apps one IOS	1 day	Mon 2/18/13	26	Installation Team
34	<b>Testing (1)</b>	<b>14 days</b>	<b>Mon 2/11/13</b>	--	
35	Test the Database	3 days	Thu 2/21/13	30	Testing Team
36	Test the interface	2 days	Mon 2/11/13	20	Testing Team
37	Test the IOS's app	2 days	Tue 2/19/13	33	Testing Team
38	Test the Android app	2 days	Mon 2/18/13	31	Testing Team
39	Test the Ubuntu app	2 days	Mon 2/18/13	32	Testing Team
40	Test the connection between the two servers	2 days	Thu 2/21/13	30	Testing Team
41	Scan the Database to see the vulnerabilities	3 days	Tue 2/26/13	35	Testing Team
42	Scan the interface to see the vulnerabilities	3 days	Tue 2/26/13	35	Testing Team
43	Scan the connection to see the vulnerabilities	2 days	Tue 2/26/13	35	Testing Team
44	<b>Development</b>	<b>16 days</b>	<b>Wed 2/13/13</b>	--	
45	Fix the bugs in the IOS's app	3 days	Thu 2/21/13	37	Development Team
46	Fix the bugs in the Android app	2 days	Wed 2/20/13	38	Development Team
47	Fix the bugs in the Ubuntu app	2 days	Wed 2/20/13	39	Development Team

48	Fix the bugs in the Database	2 days	Tue 2/26/13	35	Development Team
49	Fix the bugs in the interface	2 days	Wed 2/13/13	36	Development Team
50	Fix the vulnerabilities in the Database	4 days	Fri 3/1/13	41	Development Team
51	Fix the vulnerabilities in the interface	4 days	Fri 3/1/13	42	Development Team
52	Fix the vulnerabilities in the connection	4 days	Thu 2/28/13	43	Development Team
53	Fix the problems in the connection between the two servers	2 days	Mon 2/25/13	40	Development Team
54	<b>Testing (2)</b>	<b>9 days</b>	<b>Wed 2/27/13</b>	--	
55	Retest the Database	1 day	Thu 3/7/13	48,50	Testing Team
56	Retest the interface	1 day	Thu 3/7/13	51,49	Testing Team
57	Retest the apps	1 day	Thu 3/7/13	44,45,46	Testing Team
58	Retest the connection between two servers	1 day	Wed 2/27/13	53	Testing Team
59	Rescan the Database	2 days	Wed 2/27/13	53	Testing Team
60	Rescan the interface	2 days	Fri 3/8/13	56	Testing Team
61	Rescan the connection	2 days	Thu 2/28/13	58	Testing Team
62	<b>Training and Support</b>	<b>54 days</b>	<b>Mon 1/7/13</b>	--	
63	Apps Training	4 days	Tue 3/12/13	60	Training Team
64	Interface training	4 days	Mon 3/18/13	63	Training Team
65	Try to break the Software	4 days	Fri 3/8/13	57	Testing Team
66	Check against the requirements	4 days	Thu 2/28/13	58	Sales and marketing director
67	Review the product help Training and Support	1 day	Fri 3/1/13	59	Support Team
68	Avertising	1 day	Mon 1/7/13	--	Sales and marketing director

### Appendix 3: Activity cost estimates

E-wallat Project Cost Estimate			
Task Name	Fixed Cost	WBS Level 1 Totals	Fixed Cost
<b>E-wallat Project</b>	<b>\$0.00</b>	\$161,900.00	100.00%
<b>Planning</b>	<b>\$0.00</b>	\$41,000.00	25.32%
Find the suitable server as Web Server	\$10,000.00		
Find the suitable server for the database	\$15,000.00		
Find a company which provide suitable internet Service	\$3,000.00		
Select all programming languages we need	\$1,000.00		
Create development team	\$3,000.00		
Create support team	\$3,000.00		
Create testing team	\$3,000.00		
Create training team	\$3,000.00		
<b>Installation (1)</b>	<b>\$0.00</b>	\$10,100.00	6.24%
Setup the server	\$4,000.00		
Setup the connection	\$6,000.00		
Run the server	\$100.00		
<b>Implementation</b>	<b>\$0.00</b>	\$33,500.00	20.69%
Configure the server to work as Web Server	\$5,000.00		
Secure the connection	\$5,000.00		
Build the database	\$10,000.00		
Linking database tables	\$2,000.00		
Programming the interface with	\$8,000.00		
Create app for IOS	\$500.00		
Create app for android	\$500.00		
Create app for Ubuntu	\$500.00		
Create app for windows platform.	\$500.00		
Create app for Linux platform.	\$1,000.00		
Create app for IOS platform.	\$500.00		
<b>Installation (2)</b>	<b>\$0.00</b>	\$3,300.00	2.04%
Install the interface on the web server	\$1,000.00		
Install the database on the data server	\$1,000.00		
Link the web server with the data server	\$1,000.00		
Install the apps one Android	\$100.00		
Install the apps one Ubuntu	\$100.00		
Install the apps one IOS	\$100.00		
<b>Testing (1)</b>	<b>\$0.00</b>	\$21,000.00	12.97%
Test the Database	\$3,000.00		
Test the interface	\$1,000.00		
Test the IOS's app	\$500.00		
Test the Android app	\$500.00		
Test the Ubuntu app	\$500.00		
Test the connection between the two servers	\$500.00		
Scan the Database to see the vulnerabilities	\$5,000.00		
Scan the interface to see the vulnerabilities	\$5,000.00		
Scan the connection to see the vulnerabilities	\$5,000.00		

<b>Development</b>	<b>\$0.00</b> 	\$24,000.00	14.82%
Fix the bugs in the IOS's app	\$2,000.00		
Fix the bugs in the Android app	\$2,000.00		
Fix the bugs in the Ubuntu app	\$2,000.00		
Fix the bugs in the Database	\$4,000.00		
Fix the bugs in the interface	\$2,000.00		
Fix the vulnerabilities in the Database	\$5,000.00		
Fix the vulnerabilities in the interface	\$1,000.00		
Fix the vulnerabilities in the connection	\$5,000.00		
Fix the problems in the connection between the two servers	\$1,000.00		
<b>Testing (2)</b>	<b>\$0.00</b> 	\$6,000.00	3.71%
Retest the Database	\$500.00		
Retest the interface	\$500.00		
Retest the apps	\$1,500.00		
Retest the connection between two servers	\$500.00		
Rescan the Database	\$2,000.00		
Rescan the interface	\$500.00		
Rescan the connection	\$500.00		
<b>Training and Support</b>	<b>\$0.00</b> 	\$23,000.00	14.21%
Apps Training	\$2,000.00		
Interface training	\$4,000.00		
Try to break the Software	\$5,000.00		
Check against the requirements	\$2,000.00		
Review the product help Training and Support	\$6,000.00		
Avertising	\$4,000.00		



## Appendix 4: Network diagram

