<Web Application >
Project or Software Development Plan

Submitted in partial fulfillment of the Course 509 – Design of Software Systems
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Revision History

Date	Version	Description	Author
<12/Feb/14>	<1.1>	<Added Scope and Project Overview to the Plan >	<Mohammed Ayub>
<13/Feb/14>	<1.2>	<Added Requirement, Design and Programming Guidelines >	<Mohammed Ayub>

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Project or Software Development Plan

1. Introduction

1.1 Purpose

The Information Gathering step is outlined in this Software Development Plan which will be necessary to carry out the development process.

The following people use the *Software Development Plan*:

- **Project team members:** Use it to understand what they need to do, when they need to do it, and what other activities they are dependent upon.

1.2 Scope

The scope of the project is to make available a system to track and manage abuse reports by Department of Developmental Services, Disabled Persons Protection Commission and Human Rights Commission in synchronous fashion while maintaining data security and abiding by the state data protection laws and policies.

1.3 Definitions, Acronyms and Abbreviations

Department of Developmental Services (DDS)
Disabled Persons Protection Commission (DPPC)
Human Rights Committee (HRC)
Home and Community Services Information System (HCSIS)

1.4 Overview

The following section will be focusing on the Requirement Documentation, Analysis Model, System Model, Object Design, Implementation, Test Plan, Testing and Project Conclusion.

2. Project Overview

2.1 Project purpose, scope and objectives

To design a centralized web application system this will help the DDS staff or the reporter to fill the abuse report, DPPS and Human Rights Committee Personnel to have privileged access to the report and track the progress of the reports and other details.

2.2 Assumptions and constraints

Assumptions:

1) Users are familiar with operation of laptop and connected to Internet.

2) Server Computer handles all the data movement

Constrains:

1) Limited number of staff to carry out the project.

2) Laptop with minimum configuration to run the application.

3) Internet connection of fairly good speed.

4) Deliver the system by May 1st.

2.3 Project deliverables

Deliverable	Date
Requirement Document(Functional and Non-Functional)	20th Feb, 2014
Analysis Model	6th March, 2014
System Model	20th March, 2014
Object Design	27th March, 2014
Implementation	27th March, 2014
Test Plan	27th March, 2014
Testing Results	10th April, 2014
Project Conclusion	1st May, 2014

Table 2.3

3. Project Organization

3.1 Roles and Responsibilities

| Names	Role
Yichen Lin	UI Designer
Mohammed Ayub	Database Designer, Project Manager
Wenxin Zhao	Database Designer
Chengjiao Yang	Web Developer
Rui Jin	Web Developer
Qiukun Lin	Tester, Functional Analyst
Rundong Yu	Functional Analyst

Table 3.1

4. Management Process

4.1 Project Plan

4.1.1 Phase Plan

Please find the Microsoft Project file attached for more detailed view of the Phase Plan.

Software
Development Plan.mp

4.1.2 Project Schedule
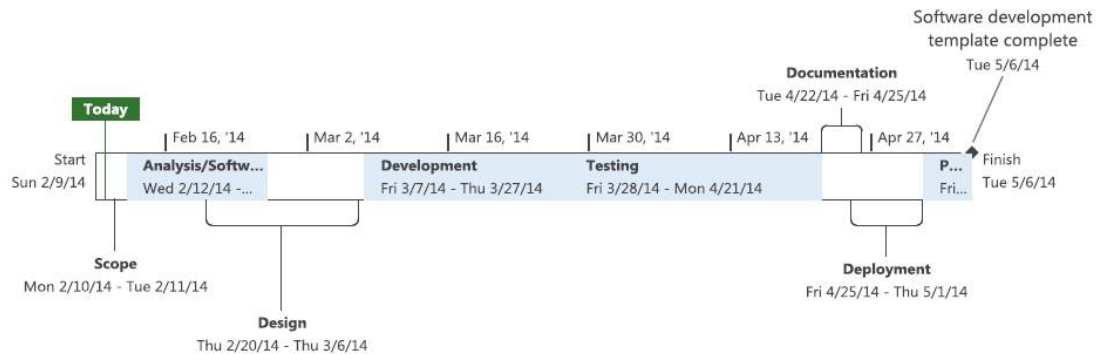
4.1.3 Project Resourcing: Training Plan

Names	Training Needed	Estimated Time
Yichen Lin	JavaScript	Feb 25th,2014
Mohammed Ayub	JavaScript	Feb 28th,2014
Wenxin Zhao	Java	Feb 28th,2014
Chengjiao Yang	web frame work, JavaScript	Feb 25th,2014
Rui Jin	Javascript	Feb 25th,2014
Qiukun Lin	Bugzilla,GIT	Feb 28th,2014
Rudong Yu	Domain knowledge	Feb 17th,2014

Table 4.1

4.2 Project Monitoring and control

4.2.1 Requirements management plan

1. We need keep connection with customer (DDS) and stakeholders (Direct staff, supervisor, DPPC investigator, HRC) to discuss any change/new in requirements.

2. Develop the Traceability Matrix to track the requirements and also map the test cases during the testing phase.

3. Propagate the changes throughout the management and development team to analyze so as to why the change is required, rational management.

4. We will be having weekly/ daily communication with the stakeholders, functional analyst and the development team establishes good understanding of the requirements.

4.2.2 Quality control plan

Project deliverables will be released and tested in multiple iterations in timely manner to satisfy the initial requirements. Any deviations/feedback from the core requirements or change request from the user will be documented and the change will be cascaded to subsequent documents and deliverables with the help weekly/daily project meetings.

4.2.3 Reporting Plan

The internal reports and documentation generated during the meetings will be shared across the blackboard to all the members and the Management team for reviewing and future reference.

4.3 Close-out plan

All the project materials (code, written and published documents) will be archived into a personal repository.

5. Technical process plans

5.1 Methods, tools and techniques

User Interface Guidelines

1. We will be using the Agile methodology for the designing the User interface. In each iteration we will be developing prototype and testing for bugs.
2. We will try to maintain the consistency across all parts of the application, from navigation to color to terminology.
3. Capture feedback from the users and reiterate on designing the interface.

Use Case Modelling Guidelines

1. Gather a deep understanding of customer's need and how they will interact with system.

2. Figure out how many actors use the system and ravel out the relationships between each actor

3. Detail the use case model, we will include the basic flow, alternative flows, sub flows, preconditions and post conditions, glossary terms and particularly explain each scenarios how the user interacts with the system.

4. Model structuring with the help of Microsoft Visio to generate UML model of the designing system.

Design Guidelines

1. Design the system by initially building a good data model, which includes a system divided into multiple subsystems, and each subsystem performing a well-defined task.

2. We will try to maintain high cohesion within the components and minimize coupling/dependencies within the components.

Programming Guidelines

1. Our main goal is to improve readability, maintenance and general quality of the code. Included parts are naming conventions, files, statements, layout and comments.

- Naming Conventions

  Names representing packages should be in all lower case. Names representing types must be nouns and written in mixed case starting with upper case. Variable names must be in mixed case starting with lower case. Names representing methods must be verbs and written in mixed case starting with lower case.

- Files

  Java source files should have the extension .java. Classes should be declared in individual files with the file name matching the class name. Secondary private classes can be declared as inner classes and reside in the file of the class they belong to.

- Comments

  Comments are to be written in application terms. Comments should be written using correct spelling and grammar in complete sentences with punctuation

  Tools: We will be using Eclipse as my IDE, Tomcat as middleware, use jdk1.6 or above, use github as code version control, with the help of Server Client Framework.

Test Guidelines

1. Test the application whether it is satisfying the core functional, design requirements and data validation.

2. We will be testing the compatibility of our system on different browsers to maintain consistent application behavior across the different browsers.

3. Testing the integration between browsers and server, hardware and software, applications and data.

4. Usability testing will be performed periodically with the prototype and logs will be maintained for future reference.

5. We will be using software tools like Bugzilla, Qtester and other web testing methods to validate and verify our application.

6. Annexes

1. Services Offered by Department of Developmental Services - http://www.mass.gov/eohhs/gov/departments/dds/
2. Home and Community Services Information System - http://www.mass.gov/eohhs/consumer/disability-services/services-by-type/intellectual-disability/provider-support/home-and-community-services-info/
3. Disabled Persons Protection Commission Report - http://www.mass.gov/dppc/docs/form-19c-reporting.pdf
4. UI Design Tis for Web Applications: http://uxdesign.smashingmagazine.com/2010/02/25/designing-user-interfaces-for-business-web-applications/
5. Component Based Software Engineering,TUE, M.R.V. Chaudron, (c) 2003- http://www.win.tue.nl/~mchaudro/cbse2007/06_Component_Design_Guidelines_presented.pdf