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## **4 Software Development Plan**

#### 4.1 Plan Introduction

This Software Development Plan provides the details of the planned development for the School tutoring Web Application, which provides an application to allow both students and tutors to collaborate with each other to provide help in a convenient way for students and generate reasonable income for tutors in return.

The School-Tutoring web application will provide an environment for the user experience of both students and tutors to collaborate with each other in the context of schoolwork help. The application will allow students and tutors to register for different types of accounts. The student account will allow the user to post new jobs for tutor's help. The jobs will be listed under schools' major categories, such as Math, CMSI, Economy and more. Then the student will set a due date, upload documents, and set a price for the job. The tutor account will allow the tutor self-promotion by providing experience and credibility. Subsequently, the tutor will be able to see a list of jobs posted by students, and can then review them and propose to do the job for the student. The student will have the ability to accept, decline or counter the tutor's proposal. During this process students and tutors can communicate through live chat, and private messages to reach agreements. When the job gets assigned the tutor will work on it, and after finishing the job the tutor will submit it back to the student. The student can check the added notes or solutions, and then the payment is released. The student after releasing the payment will be able to post a review and rate the overall work of the tutor, which will be visible to all users.

The development of this application starts on January 12 2016, will involve a thorough research about which technologies best fit the requirements of this application. Also, is the actual development and testing of code, as well as documenting the entire project. The project development is broken down into milestones; starting from the first one the project proposal, which is set to be completed in week 2 of the development. Following that the SRS or Software Requirement Specification set to be complete with room for

future enhancements in week 5. Week 9 will have either Software Development Plan, or

Software/Database Design Description Document. Week 11 will have the final versions

of the week 9 deliverables resubmitted, and in week 13 the SRS final submission will

occure. In weeks 14-16 the Preliminary Demonstration Presentations will take place.

Finally, week 17 will have the final product ready for demonstration and delivery.

**4.1.1 Project Deliverables** 

4.1.1.1 Project Proposal

The project proposal involves coming up with 3 different project ideas to be proposed to

the instructor with each one described in one paragraph. The description has to be brief

but clear.

**Due Date: Jan 19 2016** 

4.1.1.2 Software Requirements Specifications

The Software Requirement Specifications is intended to be a part of the contract between

the customer and the development company, and in this case the instructor.

document specifies exactly all the functionalities to be implemented in the software. The

document includes

1. Functional Requirements

2. Performance Requirement

3. Environment Requirements

4. Development Environment Requirements

5. Execution Environment Requirements

Due Date: Feb 9 2016

The functional requirements will be shown in detail in sections 4.4.1, and 4.4.2

4.1.1.3 Software Development Plan

In this School Tutoring Web Application the Software Development Plan is intended to

describe the process that will be used during the semester to develop the app, and this

includes the production of all required documents and software for this project.

Due Date: Mar 8 2016

4.1.1.4 Software/Database Design Description Document

This document will not be provided.

4.1.1.5 Preliminary Demonstration Presentations

The preliminary demonstration presentation of the School Tutoring Web Application is

the initial presentation for the project to demonstrate to classmates/instructors the final

stages of the app.

**Due Date: Apr 12 2016** 

4.1.1.6 FINAL Product Delivery (Final Report and Code)

The final product delivery will involve delivering the final project, hopefully complete, as

well as, demonstrating the app to wide range of audience. The app delivery will involve

the submission of all code and all supporting documents.

Due Date: May 3 2016

4.2 Project Resources

The School Tutoring Web Application has hardware resources, and software resources,

as well as a project manager. The software will be developed entirely by one person,

(Abdul Alzaid.) He will be responsible for pitching the idea to the instructor, writing all

supporting documents, and developing all the code required for this application, and

finally presenting and delivering the final product.

**4.2.1 Hardware Resources** 

This subsection describes all the hardware needed for the development and maintenance

and execution of the application.

For the development and testing of this application a MacBook Pro (13-inch, Late 2011)

will be used.

Computer: MacBook Pro (13-inch, Late 2011)

**Processor**: 2.4 GHz Intel Core i5 **Memory**: 16 GB 1333 MHz DDR3

Graphics: Intel HD Graphics 3000 512 MB

Serial Number: C1MGWJGYDV13

#### **4.2.2 Software Resources**

This subsection includes all software tools, which are required during the project.

**Operating System:** OS X El Capitan

Text Editor: Sublime Text, build 3083

IDE: Chrome Inspector, Nodejs

Related Packages: Javascript, Angularis, AngularFire, Firebase, HTML5, CSS3.

### 4.3 Project Organization

The software will be developed entirely by one person, (Abdul Alzaid.) He will be responsible for pitching the idea to the instructor, writing all the supporting documents, and developing all the code required for this application, and finally presenting and delivering the final product. The following is the detailed tasks that Abdul Alzaid will be working on.

- (1) Idea: Will involve pitching 3 ideas and choosing one of them to be worked on. (Already chosen).
- **(2) Requirement Gathering**: This involves researching, studying and determining the requirements for the School Tutoring Web Application.
- **(3) Documentation**: This involves writing all the needed documents mentioned above for this application.
- **(4) Development**: This involves developing the actual application and writing the entire code by using the above hardware and software resources.
- **(5) Testing**: Testing will also be done by Abdul Alzaid and will take place dynamically while the development is in progress using the above listed hardware and software resources.

- **(6) Presenting**: Abdul Alzaid will make the presentation in PowerPoint and will present it to the audience at the end of the project.
- **(7) Delivering**: Delivering the code will also be at the end of the project timeline, and is a responsibility for Abdul Alzaid to deliver it after the presentation.

## 4.4 Project Schedule

This section provides schedule information for the School Tutoring Web Application project.

#### 4.4.1 PERT / GANTT Chart

Link:

https://app.smartsheet.com/b/home?lx=\_7DnXWdIHMqp2FwbHEA-CQ Use your email for access

Or a direct link showing the critical path, http://i.imgur.com/s5OeAVX.png

### 4.4.2 Task / Resource Table

The following table shows the relationship between tasks and resources in hardware and software to be used.

Registration Table	
Student Account Registration	Abdul Alzaid/MacBook Pro/ OS X /
_	Sublime Text
Tutor Account Registration	Abdul Alzaid/MacBook Pro/ OS X /
	Sublime Text
Tutor Account Validation	Abdul Alzaid/MacBook Pro/ OS X /
	Sublime Text

Pages/Pages functionalities.	
Tutor Profile	Abdul Alzaid/MacBook Pro/ OS X /
	Sublime Text
The Dashboard	Abdul Alzaid/MacBook Pro/ OS X /
	Sublime Text
Main Page Posting Area	Abdul Alzaid/MacBook Pro/ OS X /
	Sublime Text
Main Page New Posts List Area	Abdul Alzaid/MacBook Pro/ OS X /
	Sublime Text

Pages/Pages functionalities.	
Main Page New Posts Visibility	Abdul Alzaid/MacBook Pro/ OS X /
	Sublime Text
New Post Proposal Option	Abdul Alzaid/MacBook Pro/ OS X /
	Sublime Text
New Post Review Option	Abdul Alzaid/MacBook Pro/ OS X /
_	Sublime Text

Tutor Reviews	
Tutors of The Month Area	Abdul Alzaid/MacBook Pro/ OS X /
	Sublime Text
Best Tutors of All Time Area	Abdul Alzaid/MacBook Pro/ OS X /
	Sublime Text
Tutor's Highest Grosser Area	Abdul Alzaid/MacBook Pro/ OS X /
	Sublime Text

Admin/Roles	
User Types and Roles	Abdul Alzaid/MacBook Pro/ OS X /
	Sublime Text
Admin's User Management	Abdul Alzaid/MacBook Pro/ OS X /
	Sublime Text
Admin's Posts Management	Abdul Alzaid/MacBook Pro/ OS X /
	Sublime Text
Admin Money payment management	Abdul Alzaid/MacBook Pro/ OS X /
	Sublime Text
Admin Tutor Account Validation	Abdul Alzaid/MacBook Pro/ OS X /
	Sublime Text

Messages/Notifications	
Messages between users	Abdul Alzaid/MacBook Pro/ OS X /
	Sublime Text
Jobs Proposal	Abdul Alzaid/MacBook Pro/ OS X /
	Sublime Text / Firebase Notifications
Notification	Abdul Alzaid/MacBook Pro/ OS X /
	Sublime Text
Reviews on jobs	Abdul Alzaid/MacBook Pro/ OS X /
-	Sublime Text

App Permissions/Rules	
Permissions and Rules	Abdul Alzaid/MacBook Pro/ OS X /
	Sublime Text / Firebase

Testing	
Testing and Enhancements	Abdul Alzaid/MacBook Pro/ OS X /
	Sublime Text / Multiple Browsers

Deliverables	
SRS	Abdul Alzaid/MacBook Pro/ OS X /
	Microsoft Word
SDP	Abdul Alzaid/MacBook Pro/ OS X /
	Microsoft Word