Software Project Management Plan

reservEDU

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**Overview**

The purpose of this project is to design a system that allows Schools/Universities to rent out facilities to other institutions/private individuals. This is a great way to bring in revenue as the institutions can loan out the facilities during the unused period. In this plan, the process, resources and tools that are to be used to create, implement and maintain the software, are listed and explained as thoroughly as possible.

**Deliverables**

A working prototype is to be delivered in the month of May 2017, and presented to a group of audience in Towson University, Software Engineering Class.

**Reference Materials (Latest)**

Unit testing - https://lostechies.com/derekgreer/2011/03/14/effective-tests-a-unit-test-example/

Integration testing - http://www.softwaretestinghelp.com/what-is-integration-testing/

Regression testing - http://testingbasicinterviewquestions.blogspot.com/2012/01/what-is-regression-testing-explain-it.html

System testing - softwaretestinghelp.com/system-testing/

**Project Organization**

* **Agile Development** – To finish the system, the team will be using agile development so that larger parts of the project is broken down into smaller tasks assigned to either a group or an individual of the team.
* **Responsibilities (General)** –
  + Chance B – Development
  + Karoon K – Development
  + David R – Documentation
  + Noah D – Development
  + Joshua F - Documentation
  + Emilio O – Documentation
  + Olawale A – Documentation

**Managerial Process**

* Management Objectives and Priorities
  + **Top Priority** – Deliver a working prototype by May 2017
  + All of the team members have the same amount of access/control involving the project as editing the software management plan or the actual system itself, however to make a big change in the system the decision has to be group oriented, or the level of access is decreased for the individual branching off for entertaining their own ideas.
  + Budget – The total budget for this system as calculated so far, is $5, including the domain purchase, hosting, email hosting, and some other functions, this is including the free credit provided for students.
  + **Schedule:**

|  |  |
| --- | --- |
| Deliverables | Date |
| Software Requirements | February 16, 2017 |
| Use Case & Sequence Diagrams | February 23, 2017 |
| HLA & Class Diagrams | March 9, 2017 |
| Repo Setup – Information | March 16, 2017 |
| SW Management Plan | March 30, 2017 |
| Mid-Semester Presentation | March 30, 2017 |
| Test Cases | March 30, 2017 |
| Code Review Part I | April 6, 2017 |
| Code Review Part II | April 6, 2017 |
| Code Review Part III | April 20, 2017 |
| System Testing | May 1, 2017 |
| Prototype Presentation | May 11, 2017 |

* Assumptions/Constraints
  + Assumptions - 1) DOE is managing a current list of schools

2) State Gov’t funding for the system

3) Institutions manage their own facilities, including

activation

* + Constraints - 1) Time Constraint

2) Size of Development Team

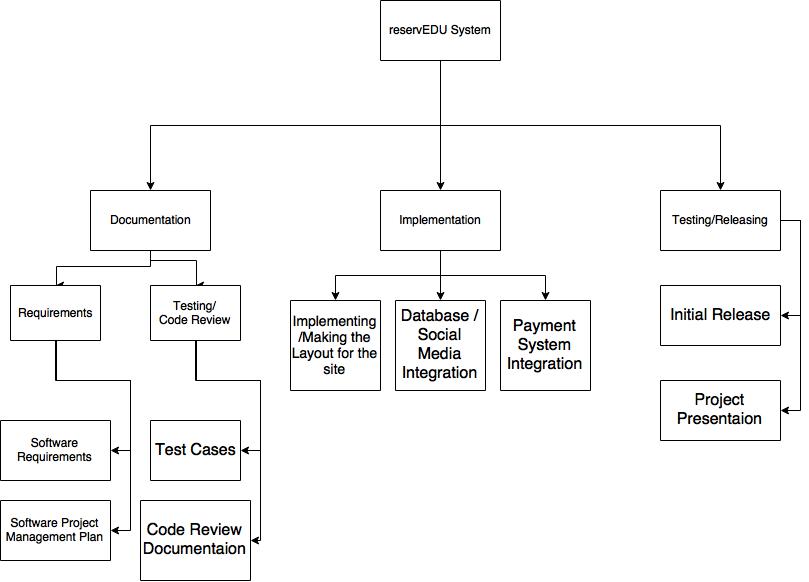
3) Funding

4) Lack of knowledge

**Technical Process**

* **Method, Tools Used:** 
  + Lumen – PHP Micro-Framework
  + Ember – JavaScript Framework
  + Stripe – Payment System
* **Software Documentation (Requirements Simplified):**
  + Able to handle transactions:
    - Secure systems to be used for reservations
      * Use an SSL certificate from Let’s Encrypt
      * Transaction will be handled through Stripe to handle requests asynchronously
    - System will be integrated with Stripe for payment
      * Confirmation about the reservation would be sent with the payment information
  + System will have one database with multiple tables
    - One table to hold user’s information
    - Second table to hold facilities/other information.
  + Result:
    - System must be able to provide/display information about the facilities and the availability
    - System must be able to provide reservation information
    - System must be able to provide payment information to the respectable authority.
    - System must be able to accurately display the information to the public, always up-to-date, to insure that no facilities are accidentally rented out at the same time.

**Work Breakdown Structure**

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