**Software Project Management Plan**

**1 Project Summary**

Project Name : LearnHub

Group members : Brandon Cole, Michael Lee, Rami, Adelia Manuel, Lysian Mve

Date : 11/19/2019

Author : Brandon Cole

**1.1 Purpose, scope, and objectives**

This project develops a learning management system (LMS) to help a university IT department their activities and improve their services, and for the management to track student’s basic information. The software system only stores and retrieves students’ partial information in the current semester and other basic information including student’s name, student’s ID, registered courses in the current semester, each exam’s score in one course, GPA calculation in the current semester.

**1.1.2 Assumptions and constraints**

Due to team members inability to meet up , and various commitments we have determined that deadlines will be moving. In order to cause less delay determining what has been done we will use a combination of GitHub for code, google drive, and discord for communication. The constraints we have are the deadline of November 25th. Unlimited budget, Resources are limited to an hour a week per team member.

**1.1.3 Project deliverables**

LearnHub will be delivered on November 25th, 2019.

**1.1.4 Schedule and budget summary**

Schedule will allow flexibility in deadlines, the documentation, backend, and frontend will all be done by November 25th, 2019. The budget is unlimited, our only expense will be the digital ocean server to run the program, $5.00 a month.

**2 Roles and responsibilities**

Project Leader - Assigns role and duties to team members.

Backend Developer - Responsible for Development of node interaction with MySQL

Frontend Developer - Responsible for styling/layout

Documentation Assistant - Responsible for creating SPMP, UML diagrams and other necessary artifacts

Fullstack developer - responsible for frontend and backend development

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| **Name** | **Role(s)** |
| Brandon Cole | **Project Leader**  **Full Stack Developer**  **Documentation Assistant** |
| Michael Lee | **Backend Developer**  **Documentation Assistant** |
| Lysian Mve | **Front-End Developer**  **Quality Assurance** |
| Rami | **Front-End Developer**  **Quality Assurance** |
| Adelia Manuel | **Backend Developer**  **Documentation Assistant** |

**2.1.1 Requirements control plan**

Requirement changes will be handled through google drive for requests to add additional features and be voted on. As the overall requirements for this project are fixed however it will be in a limited capacity.

**2.1.2 Quality control plan**

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| Code is well commented |
| Diagrams up to date with current software |
| Previous functionality still works when new features implemented |

**3 Technical process plans**

**3.1 Process model**

We have decided due to the complexity of the project, we will be implementing a rapid prototype model for the development of this project based on the requirements outlined in project assignment, [project\_assignment.docx](https://bb.uhd.edu/bbcswebdav/pid-2572398-dt-content-rid-19380578_1/xid-19380578_1) available on blackboard. The prototype will satisfy all requirements specified by the November 25, 2019 deadline.

**3.2 Methods, tools, and techniques**

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| **Software/Tools Used** |
| **GitHub** |
| **DigitalOcean Hosting** |
| **Discord** |
| **MySQL 8.0** |
| **Centos-release-7-6.1810.2.el7** |
| **Node v10.15.3** |
| **Node "dependencies": {**  **"body-parser": "^1.19.0",**  **"connect-flash": "^0.1.1",**  **"ejs": "^2.6.2",**  **"express": "^4.17.1",**  **"express-session": "^1.16.2",**  **"faker": "^4.1.0",**  **"flash": "^1.1.0",**  **"method-override": "^3.0.0",**  **"mysql": "^2.17.1",**  **"passport": "^0.4.0",**  **"passport-local": "^1.0.0",**  **"req-flash": "0.0.3"** |

**3.3 Infrastructure plan**

This project will be run on the following hardware specifications :

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| Ram : 1 GB |
| Processor : 1 vCPU |
| Bandwidth : 1 TB |
| Storage : 25 GB |

**4 Testing plan**

Testing will be handled by quality assurance personnel on their weekly inspections. This will include testing of all input that may lead to corruption of the data.

**4.1 Documentation plan**

All of the documents including the use case diagram, entity diagram, architecture diagram and CRC cards will be delivered to the client on the due date with the finalized project.

**4.2 Quality assurance plan**

Quality Assurance personnel continually comment github, and message the team on discord for any piece of software that is not meeting the software requirements. Inspections will be done weekly, by those designated as quality assurance. They will perform full inspections on the overall quality of software for the team to review.