**Title Page**

**Software Project Management Plan**

**For**

**Department of Education mathematical game**

**Initiation date 3/8/2019**

Team

|  |  |
| --- | --- |
| Mario Abdelsayed | Project Coordinator/Web designer |
| Michael Mason | Web Developer |
| Brad Henderson | Game Developer |
| Adesuen Idowu | Project Facilitator |
| Sam Bishop | Data base Admin |

Revision Sheet

3/8/2019: Outline made and introduction.

3/23/2019: Project organization updated

3/25/2019: Organization interface, project responsibilities, managerial process, technical process, and WBS.

3/25/2019: Table of content and title page

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**Introduction**

* 1.1 Project aims to deliver an educational game that incorporates a certified curriculum. The game shall incorporate the states amusement park and encourage exploration of the outdoors
* 1.2 Deliverables:  
  - Requirements and Uses case 2/19/2019  
  - HLA 3/5/2019  
  - Interface Spec 3/5/2019  
  - Class diagram 3/5/2019

-Repository setup 3/5/2019

-SPMP 3/8/2019

* 1.3 Plans For changes: The development team will be working closely together to ensure that all project requirements are being met, upon determining otherwise, changes will be made to the SPMP and communicated with the rest of the team members to ensure continuous updates
* 1.4 Refences: N/A
* 1.5 Definitions and acronyms:   
  -HLA: High level Architecture  
  -SPMP: Software project management plan

**2.0 Project Organization**

* 2.1 Process model

Project maintenance

Testing and presenting

Organization/Setting goals

Production and development

Research and Planning

* 2.3 Organizational structure
* Documentation
* Calculate and mitigate risks
* Offer support for Server/Programming team during development
* Integrate ticketing system and social media into the website
* Interface
* Database
* Game development
* 2.3 Organizational Interface:
  + Subcontractors: No subcontractors in this project
  + Software: NetBeans
* 2.4 Project responsibilities:
  + Coding hosting website: Mike
  + Coding the game and visuals: Brad
  + Creating the database hosting the data: Sam
  + Documentation: Ma rio, Seun, Sam
    - Mario and Seun will be performing the larger amount of work
  + Cross functional team: Mario, Seun
    - Will be helping the development team with different programming tasks upon request and responsible for integrating other required services into the website

**3.0 Managerial Process**

* 3.1 Management Objectives

-The team’s priority in this project to successfully implement all functional requirements of this project within the time frame allocated. Accuracy of execution and implementation takes precedence over due dates.  
-The team’s budget is very limited thus we anticipate the use of open source software and tools available to the team whenever possible

* 3.2 Assumptions, dependencies, and constraints: The projects dependencies consist of the group members ability to conduct meetings, being classroom meetings and external meetings. The time frame of the project and the ability to execute its requirements will depend on the client’s change of requirements during the development process. Other constraints consist of the low budget and resources afforded to the team
* 3.3 Risk Management:

-Contractual risks: Upon client bankruptcy, the team will asses the level and phase of development the project is it. Based on how advanced the level of development is, the team will decide between choosing to abort the project altogether or continue development and offer the project to other businesses that would be interested in the project

-Size of Project: Upon the team determining that the size of the project is too large. The team will reassess due dates and the project’s timetable to reflect the actual amount of time needed to execute the project given the resources available. If the team determines that the new time frame is too lengthy, the team will attempt to acquire new resources to help shorten the process or communicate with the client the new findings and attempt to find unnecessary aspect of the project that can be added later after project completion

Complexity of the Project: In the case of requirements creep, the team will discuss with the clients the main priorities and requirements of the project. Upon determining the main goals of the software, the team will utilize an incremental style of development to ensure that the most important requirements are met and the less important ones can be added during the latter increments of the project

-Staff: Staff consists of five developers and non are at risk of abandoning the project

-Client acceptance: During the incremental process of development, we will be providing the client with constant prototypes to test. If the client identifies issues with the prototype, it will be easy to go back and modify the specific iteration to meet the client’s needs

* 3.4 Monitoring and Controlling: Staff will be reporting on their progress twice a week in person and daily through external electronic communication and git.
* 3.5 Staffing Plan: Staff consists of 5 members. No members will be added on to the team

**4.0 Technical Process**

* 4.1 Methods, tools, and Techniques
  + Website development: Website will be developed using html and PHP to communicate with an SQL server. Website will be hosted on xhosting.com
  + Game development: Using Java and the joption panel
* 4.2 Software Documentation: Documentation will be performed on consistent bases documenting the process as it progresses through its different phases
* 4.3 Project support functions:

-Quality Assurance: Testing after every iteration and client feedback by providing the client with a testable prototype.

-Verification and validation plan: Unit tests will be performed along with quality assurance tests. Upon producing working software piece by piece after every iteration of development, a prototype will be sent to the client to test and provide feedback.

**5.0 Description of Work Packages**

WBS

Educational game/website

Maintenance, updates, and evolution

Provide working prototypes at consistent intervals to the client

Coding and implementation (includes unit and integration testing

System testing, activation, installation.

Due dates and deployment strategy

Configuration and change management

Organization/Setting goals

Production and Development

Deployment

Planning/Research