Texas Southern University Degree Plan Web App

PREPARED FOR

Dr. Sleem

TSU CS499

PREPARED BY

Erika Vazquez

Gustavo Leal

Kayathiry Pragash

Turki Sultan

Table of Contents

1. Introduction

1.1 Purpose of this document

This document details the project plan of a University's student course selection web application. This document is defined at the beginning of the project and will be revised whenever a modification within the project arises. Should there be a change in parts of the program that are to be delivered or any deadline modifications, it will be documented in another revision. All other delivered documents will be drawn from the contents of this document.

1.2 Intended Audience

The project plan document is intended for all team members, which includes the project lead, and the stakeholder. Members of the team working on the app should utilize this document as the foundational document that defines work deliverable and milestones. Customer and project lead should use this document to get insight in the organization of the project.

1.3 Scope

This document gives basic information about TSU degree plan web application. Team organization and general development process is described within this project plan. All deliverables and milestones for the project as well as project risks are defined here. However, detailed info about other parts of the project will be given in separate documents.

2. Background and Objectives

The primary goal of this project is to develop a functional TSU degree plan generator - web application. Customers will be able to produce a TSU degree plan by comparing core classes to those of the Texas Common Course Numbering System (TCCNS). The way the University creates degree plans is by going through numerous pages of information first, to come up with current degree plans. To facilitate this process, this web application will enable users to generate these degree plans faster and with ease.

The development process will start with the main functionality and new features will be added with time. After a feature is developed, it will first be tested alone and then will be

integrated in the system. Testing will also be done after the integration. When the system is fully completed and tested, the completed web app shall be delivered to customer.

3. Organization

The team consists of three TSU CS499 students. The work on the project is divided in 3 categories: Organization, Documentation & Presentation, and Implementation.

1. **Organization**
   - **Project lead**
     Project lead is responsible for the team in general. PL is to always be informed about every essential issue, and to inform other team members about those issues. PL is also a team member.

   - **Team members**
     All team members share the responsibility of organizing meetings, dividing project tasks, and delivering documents on time.
   Tools: Google groups, GroupMe, Google calendar

2. **Documentation & Presentation**
   - Documentation and presentation are both the responsibilities of ALL team members. All team members should work on all required documents in parallel, check it and make any corrections if necessary. The content of these documents will be discussed on the weekly meetings. Presentation should be made by the whole team, with each person presenting their part of the project they worked on. It is agreed that all team members should share their contributions to the project on the day of presentation.

   Tools: Google docs, Google slides

3. **Implementation**
   Project roles are divided as:
   - **Requirement Analyst**
     The job of the requirement analyst is to identify operational and application requirements for a system's functions as well as error handling requirements. Reviews workflow, documentation, and analyze data to come up with a solution to a business issue. Documents requirements with tools such as flowcharts, UML notation, to create a graphic model of the app being developed.

   - **Front-end Developer**
     The responsibility of a front-ender is to convert website design files into raw HTML, JavaScript (JS) and/or CSS code. This includes the basic website

design/layout, images, content, buttons, navigation and internal links. The end result is code that serves as the website's front-end structure, which is used by a back-end developer to add business logics and connect databases and processes, among other processes. (client-side development)

- **Back-end Developer**
  Ensure data or services requested by the front-end system or software are delivered through programmatic means. They're also responsible for creating and maintaining the entire back-end of a system, which consists of the core application logic, databases, data and application integration, API and other back-end processes. (server-side development)

- **Tester**
  Verifies the application works as intended, and all requirements are met. Quality assurance, test on multiple environments, and finding bugs in the program, are all responsibilities of the tester.

Tools: Github, Trello

3.1 Project group

Name	Responsibility (roles)
Gustavo Leal	➢ **Project lead** ➢ **Front-end developer** ➢ **Requirements Analyst**
Erika Vazquez	➢ **Front-end developer** ➢ **Requirements Analyst** ➢ **Tester**
Kayathiry Pragash	➢ **Back-end developer** ➢ **Requirements Analyst** ➢ **Tester**
Turki Sultan	➢ **Back-end developer** ➢ **Requirements Analyst** ➢ **Tester**

3.2 Customer

- Dr. Sleem
- Faculty that will use the application to develop a degree plan.

4. Development Process

Planning is done by identifying goals and calculating the time to deliver each.

To build goals, which we'll call milestones, first we break down the problem into features. Features are those that stakeholder of the project can actually see. User interface and back-end work should be completed on both the web and the server integrated, before it can be considered done.

5. Deliverables

To	Output	Delivery Date
Customer	Project Plan	01/25/18
Customer	User Requirements Document	02/09/18
Customer	System Design Documents	02/23/18
Customer	Test Plan	03/20/18
Customer	Final Product	05/04/18

6. Project Risks

Risk	Possibility	Preventive action
Lack of experience in project management, testing, and risk management	High	Research and become familiar with tools and techniques required to successfully build the product.
Team member becomes sick or has extracurricular activities to attend to	High	Inform other team members to ensure project does not fall behind.

Loss of data	High	Backup all parts of the project.
Deadlines are not met / Not able to deliver components upon review	Medium	Inform team members and client ahead of time.
Client does not like project progress	Medium	Hold reviews with team members and speak with client to ensure demands are met.
Weather interferes with meetings	Low	Hold meetings online via Instant messenger or Video Chat.

7. Communication

7.1 Meetings in person

We will have team meetings for project discussion in person every Monday from 12 p.m to at least 1 p.m, in the student lounge of the Tech building 3rd floor.

7.2 Google group / GroupMe

Communication will also be done using Google group and/or GroupMe. We will discuss any questions and issues any team member may have.

8. Configuration Management

Git will be used for sharing and managing code. There will be a person in charge for administering Github repository. The github administrator is in charge of making regular backups.

For sharing documents, the team has decided to use Google documents, where all formal and informal documents will be stored, and people can work on the same document at the same time.

The team will use Trello collab tool for project management. This will help members organize the work and monitor the status and progress of the application.

9. Time Schedule

Milestone	Milestone Description	Responsible Person	Days	Expected Completion Date
1 - Data Gathering				
1.1	Talk to client about web application	Everyone	1	01/25/2018
1.2	Initial Research	Everyone	1	01/25/2018
1.3	First deliverable due to client	Everyone	1	01/26/2018
2 - Phase One				
2.1 Front	Develop TSU core curriculum page	Gustavo/ Erika	14	03/09/18
2.2 Back	Create ⅓ database	Kayathiry/Turki	14	03/09/18
2.3 Front-Back	Testing	Everyone	7	03/16/18
2.5 Front-Back	Show client / make changes	Everyone	4	03/20/18
3 - Phase Two				
3.1 Front	Generating curriculum summary	Gustavo/ Erika	9	03/29/18
3.2 Back	Create ⅔ of database	Kayathiry/Turki	9	03/29/18
3.3 Front-Back	Integration/Testing	Everyone	7	04/0518
3.4 Front-Back	Show client / make changes	Everyone	7	04/05/18
4 - Phase Three				
4.1 Front	Creating degree plan	Gustavo/ Erika	12	04/17/18
4.2 Back	Complete database	Kayathiry/Turki	12	04/17/18
4.3 Front-Back	Integration/Testing	Everyone	3	04/20/18
4.4 Front-Back	Show client / make changes	Everyone	4	04/24/18
5 - Deployment				

5.1	Deploy Application	Everyone	7	05/04/18