William Spaulding, Robert DeCrescentis, Norman Brandon, Carlos Henderson, Keisha Johnson, Khanh Nguyen, Nathan Strawhand

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CIS 470 Project Plan

Team F – WPS Ecommerce Website

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**CIS 470 Project Plan**

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| **Team:** | **Team F** |
| **Team Members:** | **William Spaulding, Robert DeCrescentis, Nathan Strawhand, Carlos Henderson, Norman Brandon, Khanh Ngyuen, Keisha Johnson** |
| **Date:** | **1/3/2018** |
| **Project Tile** | **TPS eCommerce Website** |

# System Overview

ECommerce website which allows users to login in and search for a staff request by number. The request will display all staff information along with a field which states the staff request is valid, invalid, unable to fill, or filled. Staff members will be able to update resumes and picture through the web site.

The website will be partitioned so that clients with valid contract numbers and passwords can enter the client area. Staff members with valid employee numbers and passwords can enter the staff area. The contract manager has access to both areas.

# Project Development Management

This section will describe project organization, resources and personnel. The organization will provide information about how the website will be organized based on the case project requirements. The resources will describe compliers used and any other information such as documentation used to build the project. It will also provide detailed information about the project structure and how it will be constructed. The personnel section will describe the personnel involved with building the project.

## Organization and Resources

Organization and resources used for the project are crucial to understand and know moving forward for the project. For example, the project will be organized through constructing ERD’s (Entity Relationship Diagrams), and Gantt Chart (diagrams timeline for each task). The resources used will be Microsoft Visio and Visual Studio to code, build and compile the project. Each person within the team will have an assigned task so that the project will run smoothly and be on schedule.

## Personnel

The personnel listed below are the members of Team F. Each team member will have various responsibilities assigned so that the project can be completed on time and run as planned.

*William Spaulding* – Project Manager and makes sure the team members are on track and makes sure everyone is clear on expectations and when the assignments are due.

*Robert DeCrescentis* – Co Project Manager and team member responsible for assisting the Project Manager and making sure the team is on track for project completion. Also assists with weekly assignments.

*Nathan Strawhand* – Team member. Assists the Project Manager and Co Project Manager with project requests and assignments weekly. Performs assigned tasks and duties delegated by the Project Manager.

*Carlos Henderson* - Team member. Assists the Project Manager and Co Project Manager with project requests and assignments weekly. Performs assigned tasks and duties delegated by the Project Manager.

*Norman Brandon* - Team member. Assists the Project Manager and Co Project Manager with project requests and assignments weekly. Performs assigned tasks and duties delegated by the Project Manager.

*Khanh Nguyen* - Team member. Assists the Project Manager and Co Project Manager with project requests and assignments weekly. Performs assigned tasks and duties delegated by the Project Manager.

*Keisha Johnson* - Team member. Assists the Project Manager and Co Project Manager with project requests and assignments weekly. Performs assigned tasks and duties delegated by the Project Manager.

# Schedule and Milestones

This section explains the schedule and milestones due for the course project. Each week will have specified tasks and activities due to ensure that the course project is on time. Each team member will have assigned duties to make sure they are on track to completion and that the team is collaborating for completion. The schedule and milestones are explained based on the week.

## Scheduled Activities, Tasks, and Assignments

Week 1 – Complete Project Plan, choose team leader, team organizational structure, Status Reports (Project Manager) and Timesheet (done individually and turned in by Project Manager)

Week 2 – Team leader selection, team charter, Requirements Specification, Status Reports (Project Manager) and Timesheet (done individually and turned in by Project Manager)

Week 3 – Team leader selection, Work on team project (Due Week 4), Status Reports (Project Manager) and Timesheet (done individually and turned in by Project Manager)

Week 4 – Team leader selection, Design Specification, Status Reports (Project Manager) and Timesheet (done individually and turned in by Project Manager)

Week 5 – Team leader selection, work on team project (Due Week 6), Status Reports (Project Manager) and Timesheet (done individually and turned in by Project Manager)

Week 6 – Team leader selection, work on team project (Due Week 8), turn in team project for week 6, Component/Unit Code, Test Plan, Status Reports (Project Manager) and Timesheet (done individually and turned in by Project Manager)

Week 7 – Team leader selection, Status Reports (Project Manager) and Timesheet (done individually and turned in by Project Manager)

Week 8 – Requirement Specification, Design Specification, Test Plan, Application Files, Project Presentation and Deployment Plan

## Delivery Milestones and Baselines

Week 1 – Create team structure and delegate team member responsibilities

Week 2 – Work on Team Charter and Requirements Specification. Start Team Project. Create diagrams for ERD’s.

Week 3 – Work on Team Project and assign project responsibilities for each team member to ensure week 4 deadline is met

Week 4 – Work on and complete Design Specification. Turn in Team Project.

Week 5 – Work on Team Project and assign project responsibilities for each team member to ensure week 6 deadline is met

Week 6 – Turn in Team Project. Work on Team Project and assign project responsibilities for each team member to ensure week 8 deadline is met, Complete Component/Unit Code, Turn in and complete Test Plan

Week 7 – Continue working on Team Project for completion in Week 8. Make sure each team member is on task and track for completion.

Week 8 – Turn in Team Project. Assign presenter to present project to Professor. Turn in Project Plan, Requirement Specification, Test Plan and Design Specification. Turn in Application Files and Deployment Plan.

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| --- | --- | --- | --- | --- | --- | --- |
| **Task ID** | **Activity Name** | **Description** | **Assigned to** | **Start Date** | **End Date** | **Dependencies** |
|  | | | | | | |
| 1. | Management | Coordinates and communicated the day to day tactical implementation of the web site project. | William Spaulding | 1/1/2018 | 2/26/2018 | Professor |
| 2. | Web Application Programmers | Uses the assigned web development framework to create content for the website. (C# and ASP.Net) | Norman Brandon  Robert Decrescentis  Nathan Strawhand  William Spaulding | 1/1/2018 | 2/26/2018 |  |
| 2.1 | Web Page Engineer | Incorporates CSS and Javascript for styling, interaction, and event handlers. | William Spaulding | 1/1/2018 | 2/26/2018 |  |
| 2.2 | Database Administrator | Handles the database setup, database object class, and works with Web Application Programmers. | Khanh Nguyen | 1/1/2018 | 2/26/2018 |  |

# Risk Analysis

A proper risk analysis is defined to determine project risks such as estimation and scheduling, growth in requirements, productivity issues, compromising on designs and technical risks. Each risk is defined and avoided to ensure the project will be accurate and on time. Risks within a project are defined as, “an uncertain event or condition that, if it occurs, has a positive or negative effect on a project’s objectives.” (PMI, 2017). To avoid such risk, the team must work together to ensure that everyone is doing their part for project completion.

Estimation and scheduling of the project is crucial to make sure it is completed on time. For example, in a real-world situation, the project must meet budget needs and make sure man and project hours do not exceed the projected budget. If it does, then adjustments need to be made. Scheduling is another large part of the project due to making sure everyone is ahead of the deadline. It is imperative to make sure each team member knows their requirements and duties during the planning stage so that the project can run as planned.

Productivity issues can be a major risk to a project due to long timelines. Some projects can take months to complete. It is important that developers do not rush and cut corners. If that occurs, significant time can be lost along the way. Setting a schedule and meeting goal checkpoints along the way is a realistic way to avoid productivity issues.

Compromising on designs is a risk that cannot be taken during a development project because cutting corners only makes the project look unprofessional. If developers get stuck, they need to go to external resources for assistance (i.e. API pages or external code pages). Skipping designing steps so that a project can be completed faster is not the approach to be taken. Although deadlines need to be met, it is important that the design phase is not skipped or rushed.

Technical risks can occur when developers reduce the functionality of the software to create efficiency. This needs to be avoided due to making sure the project continues as planned. For example, in the event of the TPS website for the course project, each team member needs to know their roles and make sure the code is up to industry standards. Seeing we are not running off a budget, we can spend time making sure the project is completed correctly.

# Software Engineering

The project development adheres to several standards and procedures, methodologies and resources to complete the project. Each topic will be explained in-depth on how it pertains to the project. Software engineering has several principles for developing projects. Those will be discussed in the sections following.

## Standards and Procedures

Standards and procedures are imperative to follow which completing a software development team project. For example, the TPS eCommerce website will adhere to several standards and procedures outlined by the ISO/IEC 12207 Systems and Software Engineering practices. Each practice will be implemented during the lifecycle of this project.

Team F will be responsible for the following standards and procedures:

* Assignment of tasks, techniques used, and walk-throughs and reviews required
* Preparation of structural and design specifications and prototypes, including diagrams
* Preparation of test plans and conducting several tests throughout the course (Borysowich, 2009).

## Development Methodology

There are several development methodologies within Software Engineering which can be implemented for the project. However, two main methodologies Team F will focus on which would pertain to the development and time sensitivity of the project: 1. Agile Methodology and 2. Lean Development Methodology.

Agile Methodology focuses on short-term projects which take approximately 1 week to 4 weeks to complete. In the event of this course and project, this would be the most logical approach to take. Agile Methodologies attempt to minimize risk through short development timelines. Agile Methodologies include real-time communication (i.e. Skype or WebEx), email or face-to-face. Team F will be meeting weekly over virtual communication and email to complete the project (Software Development Methodologies, 2018).

Lean Development Methodology is a customer focused approach which contains the notion of dynamic stability. The goal is to build software with one-third developer effort, one-third development hours and one-third investment. Most of the principles involved are centered around the customer and financial resources. In the case of the TPS eCommerce Website, there are no financial recourses used but man hours and effort will be used to develop the project (Software Development Methodologies, 2018). It is crucial to build the website based on company and customer demands.

## Development Resources

The resources used for the TPS eCommerce Website project will be centered around the development and SDLC. Therefore, the website will be built using C#.NET and ASP.NET in Visual Studio. Visual Studio will be used to design and test the website prior to presentation. All diagrams will be created in Microsoft Visio and will serve as a blueprint for the project.

# Testing Procedures

Testing procedures are crucial to the development and lifecycle of the project. There are several testing procedures which will be implemented for the TPS eCommerce Website project. The Waterfall Development Model will be used to outline the testing procedures used for the project. It is a design approach which is less iterative and uses flexible approaches for development (SDLC - Waterfall Model, 2018).

Requirements Analysis: Will be created in the requirements phase to determine aspects of the design are testable and which parameters work. This will be implemented in Week 2 within the Requirements Specification.

Test planning: Will incorporate a test plan and strategy to make sure testing runs as planned.

Test development: Uses procedures and datasets for testing.

Test execution: Team F will execute the project based on the project plan and will document any errors found so that they can be corrected for the final product.

# Configuration Management

Software configuration management maintains the integrity of the products developed throughout the life cycle. It involves identifying configuration items, controlling the items, reporting status and changing activity for the items. Configuration management evaluates, coordinates, approves/disapproves, and implements changes used to develop software (Configuration Management, 2018). It eliminates confusion and simplifies how the project is built.

The TPS eCommerce Website will include the following configuration management principles:

* How the website is named
* How the website is constructed and allowed to change
* If different versions of the website under configuration management are made available
* Which configuration management tools are used

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