**D424 – Software Capstone**

**Task 2**



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| **Capstone Proposal Project Name:** | Student Degree Planner |
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# ***Section A. Describe the business problem or opportunity, including challenge customers encounter, and how the proposed software product will fullfill customer needs. Remove this section before submitting.***

# **Business Problem**

**The Customer**

Provide information about the customer who will benefit from the completion of this software application. This should include information about things such as the size of the operation, function of the business/organization, key players in the setting, related IT Infrastructure (if appropriate), mission, short and long-term goals, and projected growth.

For example:

The customer is …, a prime subcontractor in … and is responsible for performing … Steelworth has a fulltime staff … Its mission is to provide safe, long-life structures that meet and exceed the terms of the contract agreements…etc…

## **Business Case**

Describe how the software application will help the client. This should include a thorough description of the current problem being faced. Then, explain how the application will function to solve that problem.

For example:

For Steelworth, the tracking of subcontractors ... Each day there are hundreds of thousands of dollars in … on a number of job sites. The need for a centralized, web interface that will link to a robust database will benefit Steelworth by….etc…

## **Fulfillment**

Provide information about how the software application will fulfill the needs of the client. This should include how the application will appear, what the basic functions are, and how the outcome will be presented. Remember to include what the application will interface with other systems, how its functions will be enabled by the user, and what type of results it will provide.

For example:

A web application will fulfill the needs of Steelworth’s …controls. The system will interface with an equipment SQL … via a similar database, and equipment certification to ensure consistency of tracking. The system will track the usage, current status, and maintenance of equipment …etc…

***B.  Describe the software development life cycle methodology you will use to guide and support software development activities.***

***1.  Describe the deliverables associated with each phase of the applied software development life cycle methodology.***

***2.  Describe the development plan for your software product, including the anticipated outcomes from development.***

***3.  Develop a projected timeline, including milestones, start and end dates, duration for each milestone, dependencies, and resources assigned to each activity.***

***You can remove this before submitting as well as any other sample text or instructions.***

# **SDLC Methodology**

Considering the nature of your project, select a Software Development Life Cycle (SDLC) methodology that will be used to manage the project. Those may include…………. Be sure to describe the process you select first and why it’s a good fit. Then review the methodology phases and what part of the project will align with each. It is important to be clear about what is being proposed.

For example:

The SDLC Methodology utilized in this project is Waterfall because... The requirements are well understood and defined. The customer is located a significant distance … testing is not logistically possible. The system will be implemented fully…The Waterfall methodology chosen will include the following phases…etc…

# **Deliverables**

Provide information about what deliverables are related to your SDLC method. List and describe those deliverables. Also, include examples to help clarify what specific type of artifacts will qualify.

For example:

There are 2 types of deliverables that are associated with the Waterfall SDLC that the customer has requested. They are project and product deliverables.

## **Project Deliverables**

These consist of items that are part of the Project Manager’s realm of responsibilities.

* Project Schedule
  + When and what will be worked…
* Test Plans
  + The testing steps that the customer uses to perform validation…
* Requirements Traceability Matrix (RTM) …etc…

## **Product Deliverables**

Product Deliverables represents what is produced to deliver to the customer.

* Wireframes
  + A low fidelity, rough representation of the application…
* Mockups/Layout
  + These are designs that are typically high fidelity but contain no functionality. The customer can review…
* Prototype…etc…

# **Deployment Plan and Outcomes**

Explain how the project will be deployed. This has to do with how the software application will be put into the production environment, not how it will be created. So, consider the customer and timing required to meet its needs. When will validation and verification take place? What personnel will be part of the implementation and what roles will they serve?

For example:

The implementation of this application is simple…of this being a new system no outages are necessary and the deployment to production can be staged prior to the customer communicating with the user base to start…

Implementation is coordinated by the Project Manager and involves several different groups in a variety of capacities. The Web Administrators …etc…

Be sure to identify any tasks that have dependencies. If certain tasks can’t begin until other tasks are finished, make sure to state this when discussing the task that will be held up without the completion of the required deliverables.

# **Project Timeline**

For this section, you'll need to look at the phases of the project and provide information about the time required to complete each phase.

For example:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Phase | Milestone/Task | Resources | Dependencies | Deliverable | Description | Dates w/ Duration |
| Pre-development | Task 1 | Project Lead | None | Requirements | Meeting with customer and procedure review | 6/1/2018 – 6/30/2018  30 days |
| Design | Task 2 / Design files |  | Requirements Document | Low fidelity wireframe  High fidelity mockup | Create the UI that relates the look and feel of the project | 7/1/2018 – 7/15/2018 15 days |
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**C.  Justify the programming environments included in the development of the software product, including the following:**

**●  any related costs**

**●  the human resources that are necessary to execute each task**

**Removed the instructions in red and any other sample information before submitting.**

# **Environments and Costs**

## **Programming Environment**

Provide a clear picture of what hardware and software are required to complete the project.

For example:

* Windows 2016 Server running IIS 7.5 or higher
* Microsoft SQL Server 2012 or higher
* …etc..

## **Environment Costs**

Provide an explanation of the costs associated with the software application. Some might be startup, first-time costs while others might be a percentage of licensing costs. Environment costs are relatively minimal. The environment where the system resides in a shared environment where costs are shared by the organizations. There is a nominal fee associated with maintaining the database of $500 a year that allows for unlimited storage size and 99.8% uptime. The web server is another fee of $300 a year that includes maintenance and upgrades of the following; Windows Server, IIS, and ColdFusion. The final cost is based on the thick or thin clients utilized by the customer. Each device that is attached to the network has a $40 annual fee which covers Operating System and Network upgrades.

## **Human Resource Requirements**

What is the time and cost for the labor to complete the application?

For example: The larger share of human resource is by the developers of the project followed by the PM. Developers consume approximately 75% of the hours and dollars associated with …etc.

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*D.  Explain how the proposed software product will be tested by doing the following:*

*1.  Justify the methods for validating and verifying that the developed software product will meet customer needs.*

*2.  Explain how your test results will be analyzed.*

# **Validation and Verification**

Describe the methods that you'll use to prove that the software application functions sufficiently well to meet the customer's needs. Does it provide all the functionality required? How will those tests be performed and by whom? Identify how segments of the code will be tested. The Customer will perform Acceptance Testing prior to taking ownership of the application.

For example:

Testing will be a comprehensive full lifecycle test to ensure that the application has met the requirements as designed. The customer will complete multiple testing sessions with multiple users…etc..

E.  Acknowledge sources, using in-text citations and references, for content that is quoted, paraphrased, or summarized. Only include if needed. This is a proposal; you are providing information about your application. There is no real need for additional references. You are the subject matter expert of your project.

F.  Demonstrate professional communication in the content and presentation of your submission. Use Grammarly.com and a good proofreading before submitting.