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Software Development Capstone – C868

Capstone Summary

- The business problem or opportunity you are solving for, including a description of the customers and why this application will fulfill their needs.

The software will attempt to solve a basic issue that the company is having. They need a simple way to track their computer inventory and any maintenances completed on the computers. The customer who requested the software is an IT department for a small business. This application will fulfill their need for tracking computers and maintenances completed on the computers.

- Existing gaps in the software application you are replacing or modifying (if applicable).

While there is software that matches the requirements of the software that I've developed all of it requires either purchase or subscription.

- The software development life cycle methodology you use to guide and support software development activities.

Since the software will be provided free of charge the waterfall software development life cycle methodology will be the one used. Once the software has gone through the deployment phase maintenance will be provided for a fee.

- Deliverables associated with the applied software development life cycle methodology

Deliverables for the site would include a wireframe, prototype, and the final product (once it has been completed).

- The plan for implementation of your software solution, including the anticipated outcomes from this development.

The website will be implemented using asp.net and deployed using the Azure cloud. The anticipated outcome will be a useable website to track the computer inventory and maintenances of said computers.

- The methods for validating and verifying that the developed software application meets the requirements and subsequently the needs of the customers.

The customer will review the wireframe and prototypes of the website and request adjustments at that time. Once the site has been deployed minor adjustments can be requested for a fee.

- The programming environments and any related costs, as well as the human resources that are necessary to execute each task in the development of the software application

The software will be developed using C# language with the asp.net framework. The website will be deployed to Azure App Services and the data will be hosted using Azure SQL Database. The human cost will involve roughly 60-100 hours of work to complete the development and deployment of the website. Developing and releasing documentation about the website will involve another 20-40 hours of work.

- A projected timeline including milestones, start and end dates, duration for each milestone, dependencies, and resources assigned to each task

Task	Duration	Start-End Date	Dependencies & Resources
Discuss development requirements with customers	2 hours	Dec 5 th	n/a
Wireframe website	8 - 10 hours	Dec 6 th – 7 th	Customer Requirements
Review Wireframe with customer	2 hours	Dec 8 th	Website wireframe
Build site prototype & unit tests	40 - 60 hours	Dec 9 th – 19 th	Website wireframe and customer approval
Review Prototype with Customer	2 hours	Dec 20 th	Prototype built and functional
Make any adjustments to Prototype before deploying to production	20 - 40 hours	Dec 20 th – Jan 10 th	Prototype built and approved by the customer
Deploy website to production	10 - 20 hours	Jan 11 th – 15 th	Prototype correct with customer requests
Create Technical documentation for maintenance	5 - 10 hours	Jan 15 th – 16 th	Website Deployed, Resource are ASP.NET and Azure documentation
Create user documentation	5 - 10 hours	Jan 16 th – 17 th	Website Deployed
Final review and customer approval	2 hours	Jan 18 th	Website Deployed