**IT 328 Milestone Two: Your Role and the Triple Constraint**

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IT 328

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My role as the backend systems analyst is to create the architecture that will support the access of student degree information stored on our servers from a front-end web application. My main responsibilities lie in designing the back-end code that will process the requests for information and properly deliver the information based on the request. Additionally, I will be assisting in both the creation of a test plan as well as the execution of the test plan in order to locate errors in both the front-end application as well as the back-end architecture. Finally I will be aiding in deploying the web application to all users in a live environment and monitoring the system for any unexpected errors.

My work will not begin for quite some time, requiring multiple administrative tasks to be completed by the project manager before I may begin. On the ninth day I will begin by creating the architectural design for the back-end of the application. The main focus will be on data processing and this task will be done in parallel to Ana Fischer’s front-end development. We will most likely be working together over the course of the two day duration to ensure that the setup for the front and back ends and any consequent terms are matching for ease of development later on. After the two days I will begin programming the back-end code to process the send and receive requests from the front-end. Once again this task will be done in parallel over a five day period alongside Ana Fischer’s front-end development. During this time we will be able to test the various requests to ensure that the information is sent and received properly over the net. Once the front-end and back-end development is complete we will be able to begin extensive testing the application in full. Testing will not be able to continue unless both the fron-end and back-end are complete so it is imperative we get both sides of the application complete before proceeding, as we will not be able to test anything in full unless we have something to actually test. Ana Fischer, Shila Cole, and myself will be extensively testing the application over ten days for any errors that we did not discover during the development process and resolving them. This is the most important stage for us and takes up a large portion of our development life cycle so we have to get it done right. On day 26 we will begin pushing our work to the go-live environment. During this day we will closely monitor the stress on the system and make sure it is able to properly handle the amount of traffic under an average load.

In the advent of a recent request by the project manager we have been allocated an increased budget of $10,000 alongside an additional week of time to our project schedule in order to develop a new feature. This new feature has been determined to be a calendar / timeline showing when classes have been taken, classes that are currently active and being taken, what classes are scheduled and their duration, and the earliest estimated date the student can graduate based on the given information. Additionally, suggestions on when to register for specific classes will be displayed and the course history can be altered to show what-if scenarios. The course history calendar tool will give students a visual representation of their history at Regatta University and give them an approximate idea for what to expect in the near future.

With the addition of the new feature the project’s gantt chart has been updated to reflect the one week time increase and allocated time for new and updated tasks. The reservation of two days has been made specifically for planning out the front and back end features after the completion of the degree trackers main features - tasks 9 & 10. An additional day has been allocated for developing the code to send and receive as well as process data for both the front and back ends respectively - tasks 12 & 13. Two days have been granted for creating a test plan - task 14 - with two extra days for testing all the features in the test plan - task 15. Two extra days have been allocated to integration testing as well - task 16. Administrative tasks that cover the entire project have been extended by a week - tasks 18, 19, and 20 - and tasks concluding the project have been moved to line up with the end of the project - tasks 21 and 22.

The change in project scope via adding a new feature has altered the requirements on time needed to develop the finished product as well as the required budget to fulfill the new scope. Fortunately management has allotted the project extra time and funding in order to successfully complete the new scope requirements. Without the increase to the duration of the project it would have strained the project team by overloading them unless more team members were added. Without a budget increase it would not be as much of an issue as the time constraints seeing as the budget has been of little concern overall thus far.