SEG3904 Project Proposal

*Project Title:*

*Mobile Application for Resident Practice Profiles*

Student Name, Student Number – Student@email.address

Prof. Name – Professor@email.address

**Overview**

The purpose of this project is to develop a mobile application for Resident Practice Profiles (RPP). RPP enables medical residents to see if their clinical experience matches the family curriculum at the medical school. RPP will use QuickForms, which is an application framework for building business intelligence apps, integrating mobile AJAX Form interfaces with relational db reporting through a RESTful webservice (based on MVC, Data Access Object, and Data Warehouse patterns). At the end of this project, medical residents will be able to receive ongoing and detailed feedback on how well their experience is giving them coverage in terms of types of patients and types of diagnoses and procedures they have seen

Learning Outcomes:

At the end of this project, the student will have learned to (example list of outcomes below):

● **G1c**: Program in a programming language different from those seen in courses (JavaScript).

● **G2b**: Analyze software in order to improve its efficiency, reliability and maintainability.

● **G4b**: Apply a wide variety of design patterns, frameworks and architectures in the design of mobile applications.

● **G4c** and **G5c**: Design and use persistent data storage mechanisms in a framework suitable for mobile Business Intelligence apps (QuickForms).

● **G5f**: Use configuration management, issue tracking, and automated testing and build tools (e.g., Assembla, TortoiseSVN).

● **G6a**: Work individually on software engineering activities.

Technologies:

* HTML is a standard markup language to create webpages.
* CSS is a style sheet language using for describing the style of a document written in HTML.
* JQuery is a JavaScript library designed to simplify the client-side scripting (<http://jquery.com/>).
* QuickForms is an application framework for building mobile business intelligence applications (<https://code.google.com/p/quickforms3/>).
* Microsoft SQL Server is a relational database management system.

Resources:

● *JavaScript Patterns*, O'Reilly Media, 2010

● Deitel, P., Deitel, H., & Deitel, A. (2012). *Internet & World Wide Web: How to program* (Fifth ed., p. 923). Boston, Massachussetts: Person Education, Prentice Hall.

* Technology websites mentioned above.

**Deliverables**

|  |  |
| --- | --- |
| **Deliverable** | **Weight** |
| Initial application description and requirements. | 15% |
| Hello World assessment of technologies. | 10% |
| First version of the software, checked against selected scenarios/features and use of persistent storage. | 15% |
| Inspection to determine the quality of the use of the programming language and patterns/frameworks. | 15% |
| Working final version, checked against requirements (especially non­functional ones). | 15% |
| Proper use of configuration management and issue tracking tools. | 10% |
| Report with final requirements, architecture, challenges/resolutions, code structure overview, self­assessment of learning, and future work items. | 20% |

**Work Plan (135 hours)**

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| --- | --- | --- | --- |
| **Week** | **Meet?** | **Action** | **Hours** |
| 1 | Y | Project plan, expectations, and technologies. Environment set up. | 10 |
| 2 | Y | Application description and requirements. | 15 |

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| --- | --- | --- | --- |
| 3 | Y | Hello World version, with use of technologies. | 10 |
| 4 | N | Architecture development. | 15 |
| 5 | Y | Implementation of selected set of features/scenarios. | 15 |
| 6 | N | Implementation of selected set of features/scenarios. | 15 |
| 7 | Y | Implementation of selected set of features/scenarios. First version. | 15 |
| 8 | N | Implementation of remaining features/scenarios. | 15 |
| 9 | Y | Implementation of remaining features/scenarios. | 10 |
| 10 | Y | Report drafting and software inspection. | 10 |
| 11 | N | Report and final software delivered. | 5 |