Software Development Project

V Model Manager

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Course: Software Engineering

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# Requirements Analysis:

The following is the list of our requirements for this app

* The application will be written in C++ using the QT framework for the GUI
* Selecting the different parts of the V-model opens a list to enter text data
* User has the ability to have multiple projects and can name them as they like
* Selecting the “Info” button opens a help menu
* Selecting the “New” button opens a new project file
* Selecting the “Logs” button opens time/defect logs
* Selecting the “Export” button compiles a final report in Word and Excel files

# High Level Design:

This is the high level design for the entire system. It shows how each requirement will be completed among the different modules of this project. Below is a list of all the modules and their features followed by a diagram that shows their interaction with one another.

* Module 1: V-Model Menu
  + Shows the V-Model diagram and the current progress of the project.
  + Is able to go to any stage of the project.
  + Has a button for exporting the report and time sheets.
  + The log button will allow someone to change the progress of any section and add any time that the project was worked on.
* Module 2: Requirements List
  + Displays current list of requirements
  + Allows users to add new requirements to the list
* Module 2: High Level Design
  + Allows the user to upload and save a diagram to display.
  + Users can enter new modules in this section that can be expanded on in Detailed Design Section
  + Shows what stages each module is in (Design, Implementation, Testing).
* Module 3: Detailed Design Diagrams
  + User can cycle through Modules
  + Each module can upload a diagram.
  + Each module shows the current status of each module (Design, Implementation, Testing) and can be changed in this menu
* Module 4: Implementation
  + Shows the current modules that are in this stage.
  + Links user to the repository containing the project.
* Module 5: Unit Tests
  + Each module will have its own unit test section.
  + User can submit the any bugs to for this unit test.
  + User can update the current statues of those bugs.
  + The test cases can also be submitted for each unit test.
* Module 6: Integration tests
  + User can submit the any bugs to for the integration test.
  + User can update the current statues of those bugs.
  + The test cases can also be submitted for each unit test.
* Module 7: System tests
  + User can submit the any bugs to for the system test.
  + User can update the current statues of those bugs.
  + The test cases can also be submitted for each unit test.
* Module 8: Export
  + Compiles all the data into a word and excel file.
  + At each section the user should have the ability to submit a comment on that section to be added to the report.
* Module 9: Time Log
  + The user can add the time spent in each section.
  + The module has the start time, end time, break time, and asks the user which section this time was spent on.
  + User can also write a comment to the time log.

