Software Project Management

Comprehensive Plan

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****Those who contributed are highlighted and underlined****

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Project Description

The project management system will include the following set of requirements:

- **I.** A general section where the user will be able to input specific information.
  - **a.** High level description of the project
  - **b.** The project manager's name
  - **c.** A list of project team members (This should be able to be updated as the project progresses)
  - **d.** A list of risk and risk status
- **II.** A section where project requirements can be recorded.
  - **a.** A feature will allow the user to enter functional and nonfunctional requirements.
- **III.** A section where the user can monitor and track the project
  - **a.** A feature shall be included that will allow the user to enter the number of hours (daily or weekly) that a person or persons has contributed to requirements analysis, designing, coding, testing, and project management.
  - **b.** A feature that allows the user to view the total hours that has been contributed to requirements analysis, designing, coding, testing, and project management.

Deliverables for the Project Management System:

- **I.** Project plan
  - **a.** A description of the product, goals, and deliverables
  - **b.** An assessment of the total cost in terms of resources
  - **c.** A schedule for the project
  - **d.** Risks and assumptions
- **II.** Executable code

Product Goals

I. Allow functional and nonfunctional requirements to be tracked properly
   a. This includes their description, source, acceptance status, and completion status.
      i. 98% of what is entered is correctly displayed
II. Requirements tracking, hour logging, and risk management will be centralized into a single utility that is user friendly
   a. This includes response timeliness, and ease of flow
      i. 98% conformance to standards on the screen
III. Data will be saved and loaded so we can maintain a record of our progress over the course of the project
   a. This includes any data being entered will have the option to be saved. Also, any past information concerning projects can be loaded.
      i. 98% of saves will be successful and 98% of loaded information will be successful and available to the customer in a timely manner.

Project goals

I. The project will remain on schedule and all deliverables will be completed by their due dates
   a. This includes all deliverables that need to be turned in by their due date
      i. We will measure our progress by setting weekly check-ins (two at most) with all team members to make sure all deliverables are on track
II. The project will maintain good productivity levels
   a. Team members will be in good morale and all team members will equally contribute to deliverables
      i. This will be measured through open communication in the form of discussion boards and group me. Everyone will have a safe

environment to express any opinions on the deliverables being created.

Processes and Methods used

We decide to use the Test-Driven Development (TDD) as it will be a practical method to develop and test as we go.Test-driven development (TDD) is a software development process that relies on the repetition of a very short development cycle: first the developer writes an (initially failing) automated test case that defines a desired improvement or new function, then produces the minimum amount of code to pass that test, and finally refractors the new code to acceptable standards.

Possible Risks/ Assumptions for Project

Reviewing our model for the project management system software, there appears to be a particular risk associated with our design. In the modules of classes, the effort type “ANY” may be superfluous and not used often in the code. Besides that, the modules are dependent on one another, but a positive is that many are loosely coupled, allowing software to be modified without any major changes in classes.

Cost and Expenses

Analyzing the requirements of this project, we have created two instances of how much it will cost depending on the client’s preferences.

In the first instance, we will take the minimum approach that requires less money spent but could factor the extent we can go in the project.

I. Tools used would be the free version of Intellij IDE
II. Hiring members that would have to be trained to produce our product.

III. Have meetings via online/ Telephone to minimize travel expenses.
IV. Create monthly goals for phases to be complete and keep team members focused at tasks
V. If lucky, we can contact a professional to oversee the team's progress and correct anything, free of charge.

In the second instance, we would create a budget so we can have an effective and larger support system in the development of the program.

I. To have all available coding and support for Intellij, it would cost: $700 per year. In case of a fallout in creating the program in a certain language, this will allow programs to convert to any fitting language.
II. Hire a Lead to help guide team members to develop a sturdy program. This lead would have previous experience which means they would need to be paid reasonably for their services. ($30 per hour).
III. Although it is great to have meetings online, it is more efficient to meet in person so things can be done in real time and problems are explained better than text message or video chat. We would try to keep the team members local so we will measure based on gas prices. At most the employees would drive 25 miles for meeting. ($0.12 gas price per mile X 25 miles)= 3 gallons required. Team members would pay $2.70 x 3= $8 for each trip to the meeting.
IV. Goals would be set with a reward at the end of phases to keep members motivated and give back for their hard work. (Company Credit and/or Gift Card). About $30.