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Project Planning Tool for Frugal Innovation Lab Teams

https://www.scu.edu/engineering/frugal/

The Frugal Innovation Lab at Santa Clara University provides opportunities for students and faculty to partner with industry clients and non-profit organizations to develop new low-cost products and technologies for emerging markets. The goal of this project is to provide our students with an opportunity to experience a "real-world" project that builds critical skills in their area of focus.

What we will do with this tool:
This tool would be used by students, faculty members, and staff who are undertaking the initiation of a project through FIL with a field-based partner. The application will allow for team members to create timelines (with dependencies), delegate tasks to a particular member, generate and track budgets, record communications with partners, etc. The aim of this application is to assist with the execution of successful projects.

Audience: Few administrators, but many users. Only administrators have the credentials to create a new user profile for a team.

Functionalities/Information to be Queried:

- Create teams of people with specific roles (Student, Faculty Advisor, Manager, or Partner).
    - Contact information required (e-mails hyperlinked, if possible)

  Each team shares an account in the system.
- Project Description (Long Text) with thematic tags. Each project has a status associated with it.
- Project Desired Outcome (Short Text) – Metrics for Success
- Visual timeline of project deliverables with inputs for specific dates and the flexibility to visually scale (if timeline is 1 year long, allow to zoom/scroll to see all).
- List of tasks/deliverables, assigned to the timeline by date and delegated to a specific team member.
    - If a task has a dependency on another team mate/external partner, indicate it next to the task.
- Simple spreadsheet/grid for inputs of a basic budget, with projected and actual transaction details. (15 rows and 4 columns)
- A grid to store communications with partner. For example, their name, date when the communication took place, a summary of the details.
- A mechanism to query the database by team and project.
    - If a team member's name is queried, a list of their tasks is displayed.

- If a project is queried, the names of the team members, project description and current status of the project is displayed.

Optional:

- Common message board to communicate to team members publicly.
- Placeholder for a link to a Google Folder that acts as a repository of content for the project. (Input should be accessible on nearly every screen.)

Graphical Interface: The graphical interface must be designed with the branded colors, font, and logo.

The project will consist of four main phases: analysis, design, implementation and testing:

Analysis: In the analysis phase of the project, you will develop the use cases and identify the analysis classes.

Design: For the design, you will develop different UML diagrams to describe the design. You must develop the class diagrams, activity diagrams and sequence diagrams. You may optionally include any other diagrams that you think are needed.

Implementation: You are free to use any tools and/or languages of your choice. The only constraint is that at least a portion of the project must be implemented using Java and the object-oriented design and programming techniques discussed in class.

You will need to submit the reports for the analysis, design, and implementation by the due dates listed on the course web page. Project demonstrations will take place during finals week on the date and time listed in the syllabus.