Project registration portal

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PROJECT DESCRIPTION

A web portal that allows students to register their project name, domain, team and guide. The Teachers are allowed to create panels for the teams they are mentoring.

CASE STUDY: PROJECT REGISTRATION PORTAL

- Students in the university generally enter their team details into a google form, and the teachers form the panels independently. There is no unified system for this.

- With our project, a student will be able to enter all of their details that are relevant to the project, and the moment they do so, the teachers are able to view the team on their webpage.

Case Study: Students

- **The students have an option to choose minor/major project types, and if it is a minor project, they are prompted to give details of their internship**

- **In case they have already registered, they are led to a page where they can view their team and panel IDs along with their team details.**

Case Study: Teachers

- Teachers can form panels for the teams they are mentoring by just clicking a link, and entering teacher IDs of the teachers they want to form a panel with.

- Teachers can also look at all the panels they are a part of on the same page.

Case Study: Coordinators

- A few coordinators exist throughout the department. They have access to everyone's team and panel details.

- Coordinators can also view extra details about the team and panel distributions of the students.

Database problems

Atomicity

Every transaction is complete. We commit a transaction to the database only after every query that's a part of the transaction is executed successfully.

Referential Integrity

To not violate any of the foreign key constraints, we had to come up with several work arounds, like reording the queries. One particular instance is where we form a panel with just the guide when a team registers. This panel is still considered "empty" if it has just the guide.

Database problems: continued

Concurrency

To eliminate problems created by multiple users trying to enter to a table at once, we lock tables at the beginning of a transaction. Tables are only unlocked af

Security

Given that this is a multi-user environment, we created multiple users that have different access, insert and select privileges, to make sure that the user in a page can only affect the data that is relevant to them.

TEAM

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Thank you.