**CSC 238 – Human Computer Interface Design**

California State University, Sacramento (CSUS)

Computer Science Department

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**Assignment** – Design Patterns

The research paper titled “DEVELOPMENT OF ONLINE PROJECT REGISTRATION

AND MANAGEMENT SYSTEM (ePRM) FOR MASTERS BY COURSEWORK” is used to find the design features and patterns.

Below is the link to access the research paper:

<https://jestec.taylors.edu.my/Special%20Issue%20UKM%20TLC%202013_2/UKMTLC%202013_6_2015_2_018_027.pdf>

The Pattern identified by comparing the research paper and our project is “Centralized Digital Platform.”

**Relevance in the Design:**

The relevance of the Centralized Digital Platform pattern to the project design lies in its ability to streamline user interactions and improve the management of complex data flows. In systems like GraduGate and ePRM, where multiple user roles (students, professors, administrators) need to interact seamlessly with a range of functionalities (proposal submission, assessment, feedback), a centralized approach simplifies the architecture and enhances the user experience.

**Incorporation into the Design:**

1. **Unified User Interface:** Designing a single, cohesive interface that all users can access, which adapts to display content relevant to their specific roles. For example, students see proposal submission and tracking features, while professors access assessment tools.
2. **Data Centralization:** Integrating all data-related functionalities - such as user profiles, proposal documents, and status updates—into a centralized database that all components of the application draw from. This ensures consistency and real-time updates across the system, reducing the likelihood of errors and data mismatches.
3. **Role Based Access Control:** Implementing the sub-pattern to manage permissions within the centralized platform to ensure users only access features and data pertinent to their roles. For example, students can only see and edit their proposals, while professors can view all proposals submitted to them but cannot edit student data.
4. **Integrated Communication Tools:** Incorporating messaging and notification systems directly into the platform, enabling instant communication between users without needing external tools. Notifications can alert users to changes in proposal status, comments from professors, or upcoming deadlines, enhancing the platform's responsiveness.
5. **Feedback and Revision Features:** Allowing for an iterative feedback loop where proposals can be submitted, reviewed, and revised within the same system. This would streamline the often-cumbersome process of proposal adjustments and re-submissions.

**Some Adjustments in the Design Process:**

**Before:** Separate systems for document submission, user management, and communication.

**After:** A single platform where document management, user profiles, communication, and notifications are all integrated.