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Project ID: 4

Project title: BITHACK’24- Hackathon Events Forum

Technical Components

Components	Tech stack
Frontend	HTML,CSS,JS
Backend	Python(Django)
Database	MYSQL
API	REST Ful API

PROBLEM STATEMENT:

The proliferation of hackathon events has led to a need for a dedicated platform that addresses the challenges faced by both organizers and participants. These challenges include:

- **Fragmented Event Management:** Organizers struggle with managing various aspects of hackathon events, including registration, participants are in team, project submission, judging, and using disparate tools and methods.
- **Inefficient Team Formation:** Participants find it difficult to connect with compatible team members based on their skills and interests, hindering collaboration and innovation.
- **Knowledge Sharing:** Participants face difficulties in accessing relevant resources, sharing ideas, and seeking assistance during the event, leading to suboptimal outcomes.

PROJECT FLOW:

Purpose:

This document serves to comprehensively detail the BITHACK’24 platform, elucidating its core objectives, functionalities, user interfaces, operational parameters, constraints, and responses to external triggers. It aims to provide a clear understanding of the platform's purpose, features, and operational guidelines for both organizers and participants involved in hackathon events.

Scope:

BITHACK'24 aims to addressing the needs of organizers and participants. It encompasses event management dashboard, project submission, registered teams and knowledge sharing, offering features such as scheduling, collaboration tools, and analytics dashboards. By providing a centralized forum, the platform enhances coordination.

Business Context:

The hackathon events forum aims to enhance the efficiency and effectiveness of hackathon events, thereby fostering innovation and collaboration within the community. Primary stakeholders include hackathon organizers, participants, and mentors.

Considerations:

- The platform ensures intuitive and easy to use for both organizers and participants, ensuring widespread adoption and engagement.
- Integration with Google accounts ensures seamless authentication for all users, streamlining access and enhancing security across the platform.

Users:

- Participants: They can login and register for hackathon events by choosing problem statements, and they can see limit of registration for that problem statement and number of participants registered with team members.
- Organizers: They can create and manage hackathon events, set event details, manage registrations, and oversee event progress.
- Mentor: Provides guidance and support to participants during the hackathon event, sharing expertise and knowledge.

Dependencies:

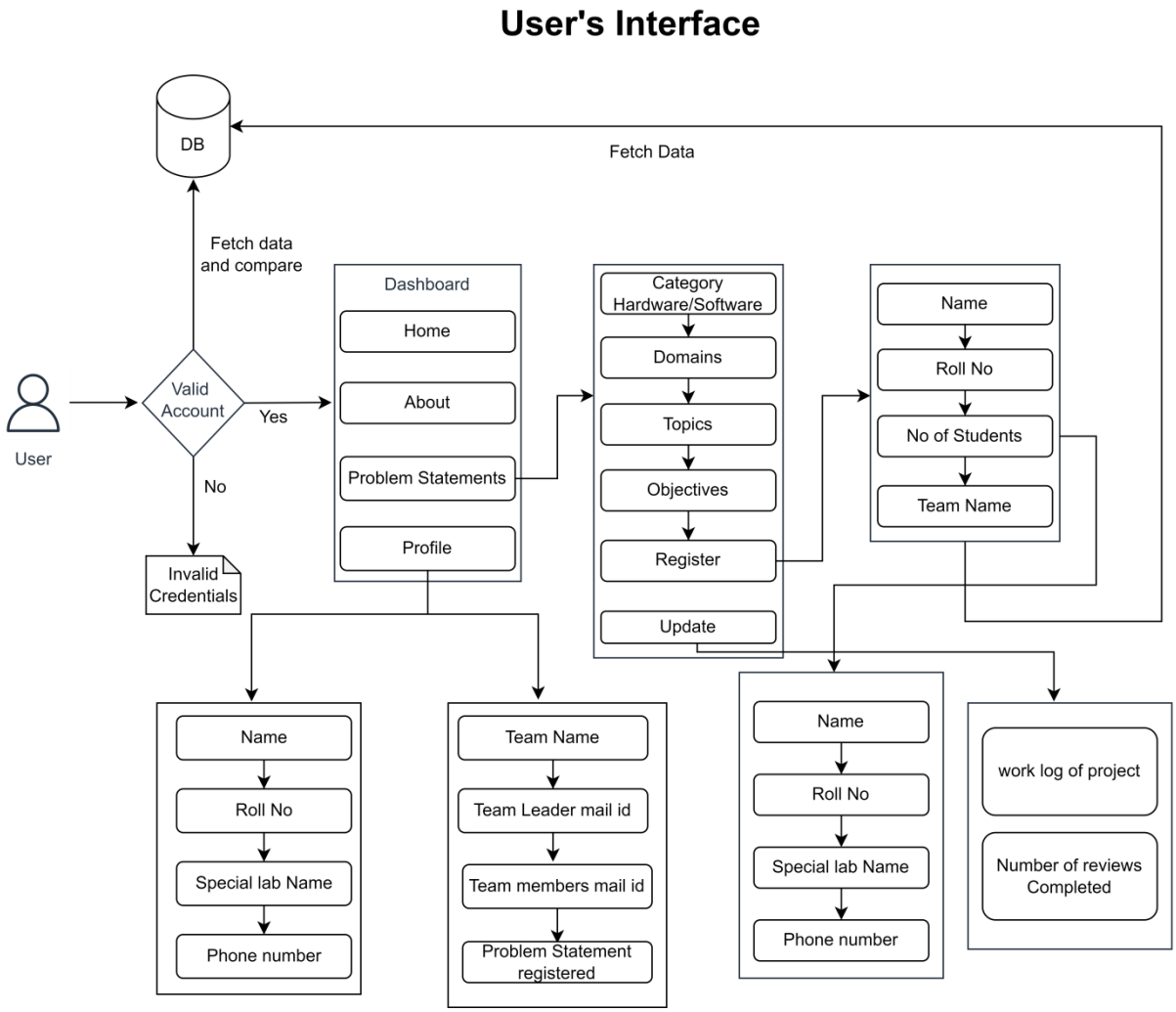
- Integration with authentication systems for user registration and login.
- Access to relevant APIs and data sources for event information and participant profiles.

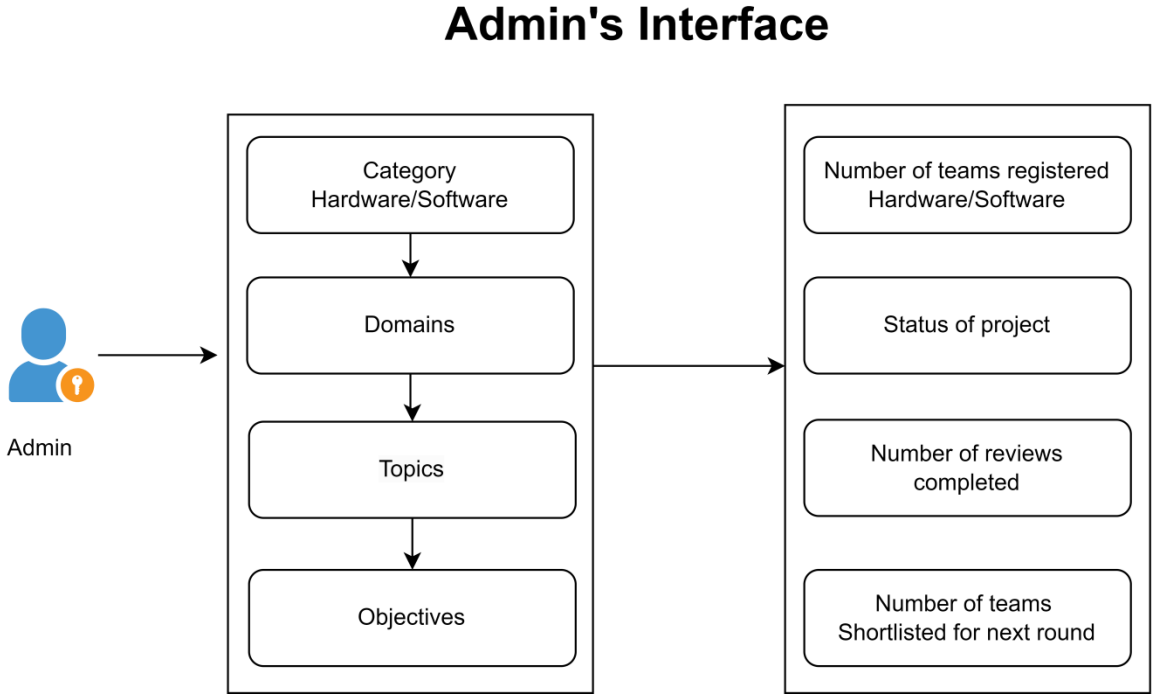
Functional Requirements:

- **User Authentication:**
    - Participants and organizers able to register for accounts and log in securely.
    - Authentication methods include email, password and Google login options.
- **Event Management:**
    - Organizers can create, manage, and customize hackathon events. Event details such as date, time, location, and theme should be configurable.
    - Participants can view and register for upcoming hackathon events.

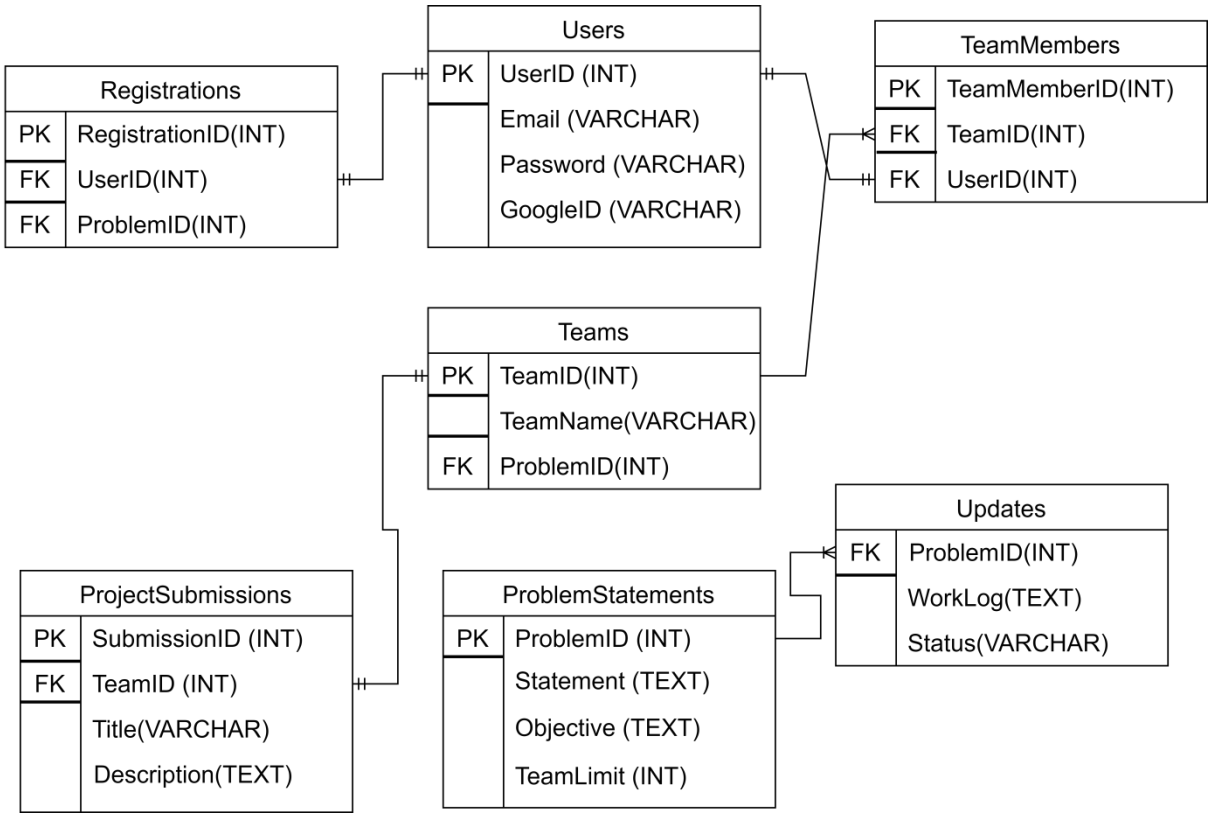
- **User Dashboard:**
    - Users can view problem statements and its objective.
    - User can form teams and they can register.
    - Users can view number of teams registered and limit of that particular problem statement.
    - User can update their work log and number of reviews completed by them.
- **Admin Dashboard:**
    - Admin can view number of teams registered in hardware and software project.
    - Admin can view status of their project.
    - Admin can view number of reviews completed by participants.
    - Admin can view number of teams shortlisted for next round.
- **Team Formation:**
    - Participants able to create or join teams for hackathon events.
    - Team formation tools should facilitate finding compatible team members based on skills and interests.
- **Project Submission:**
    - Participants can submit project proposals for hackathon events after completing reviews and they can see status of their project.
    - A project submission form includes fields for project title, description, objectives, and attachments.
- **Knowledge Sharing:**
    - A centralized knowledge sharing hub provides resources, tutorials, and communication channels for participants.
    - Participants able to share ideas, seek assistance, and collaborate with peers and mentor.

USER FLOW DIAGRAM:





BACKEND (DATABASE CONNECTION):



Non-Functional Requirements:

- **Performance:** The platform should be responsive and able to handle concurrent user interactions during peak times. Page load times should be optimized to ensure a smooth user experience.

- **Security:** User data should be encrypted and stored securely to prevent unauthorized access. Access controls should be implemented to ensure that only authorized users can perform specific actions.

- **Scalability:** The platform should be scalable to accommodate a growing user base and an increasing number of hackathon events. Infrastructure should be designed to handle potential future expansions and upgrades.

- **Usability:** Bithack'24 prioritizes intuitive design and seamless navigation, catering to users of all levels of technical expertise, enhancing accessibility and fostering an engaging user experience across desktop and mobile devices.

- **User Interfaces:** The user interface should be intuitive, user-friendly, and accessible on both desktop and mobile devices. Navigation should be straightforward, with clear labels and intuitive design elements.

- **System Interfaces:** The system should integrate with external APIs for features such as authentication and social media sharing. Data exchange between the frontend and backend should be secure and efficient.