IITISoC Proposal Submission

Team Details:

Team Leader:

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Team Member 1:

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Problem Statements Interested In:-

1> Academics Organizer Portal –PS6(Beginner)

Domain: Web Development

Project Solution:

1>**Create User Authentication**: Implement secure login and registration functionality for students and faculty members using a server side language like node.js or PHP.

2>**Design Responsive UI**: Develop a user-friendly interface that adapts to different screen sizes using Media Queries.

3>**Integrate Calendar**: Connect the portal with a calendar system to display academic events.

- 4>**Implement Role-Based Access Control**: Ensure that students and faculty members have appropriate permissions using Passport.js or Auth0:

5>**Database Setup**: Set up a database using Mysql, etc to store user profiles, course information, and announcements.

6>**Announcements**: Both students and faculty members can view important announcements related to courses or campus events on their respective dashboards

7>**Course Management**: Students can view their enrolled courses, access syllabi, and submit assignments. Faculty members can manage course materials, upload lecture slides, and create assignments.

Project Timeline:

- **Week 1**:
  - Set up project structure and environment.
  - Implement user authentication (login and registration).
  - Create basic UI components using html, CSS and Javascript (dashboard layout, navigation).
- **Week 2**:
  - Develop course management features (view courses, syllabi, assignments).

- Integrate the calendar system.
- Implement announcements functionality.
- **Week 3**:
- Finalize UI design (responsive layout, styling using javascript-React.js).
- Test role-based access control.
- Deploy the portal to a development server for testing.

2> Job Search and Recruitment Platform –PS8(Intermediate)

Domain: Web Development

Project Solution:

1>Users can search for job listings based on keywords, location, and industry. The languages used would be PHP, JavaScript (Node.js) and Mysql.

2>Job Posting Employers can post job listings with details (title, description, requirements). The database will managed using mysql.

3>Resume Upload (PHP): Job seekers can upload their resumes and create profiles. We will use PHP and Laravel.

4>Job Alerts: Email notifications for relevant job openings. Technologies: PHP, HTML, CSS.
5>User Profiles: Personalized profiles showcasing skills and experience.

- 6>JWT (for Node.js): Secure user sessions or Passport.js for PHP authenticate the users.

Project Timeline:

- **Week 1**:
- Set up project structure and environment.
- Design user interfaces (job search, profile creation, job posting).
- **Week 2**:
- Implement job search functionality.
- Develop user profiles and resume upload features.
- Create job posting forms.
- **Week 3**:
- Build application tracking and employer dashboards.
- Test end-to-end functionality.
- Deploy to a development server for testing.

3> Music Streaming App –PS19(Advanced)

Domain: Web Development

Project Solution:

1. **Discover Favourite Tracks Easily**:

   Allow users to explore music by categories (genres, artists, moods).

   Technologies: PHP, Node.js, HTML, CSS, JavaScript.

2. **Personalized Playlists**:

   Create custom playlists based on user preferences (liked songs, favourite artists).

   Technologies: PHP, Node.js, MySQL.

3. **Online and Offline Access**:
   - Enable users to stream music online and download songs for offline listening.
   - Implement caching mechanisms for offline playback.

   Technologies: PHP, Node.js, SQLite (for local storage).

4. **Social Media Integration**:
   - Allow users to share their favourite tracks, playlists, and discoveries.
   - Integrate with social platforms for seamless sharing.

   Technologies: PHP, Node.js, OAuth (for social login).

5. **User Profiles and Preferences**:
   - Allow users to create profiles, set preferences, and manage playlists.
   - Collect data on listening habits for better recommendations.

   Technologies: PHP, Node.js, MySQL.

6. **Curated Recommendations**:
   - Use machine learning algorithms to suggest similar songs or artists.
   - Consider collaborative filtering and content-based recommendations.

   Technologies: Node.js, ML libraries (TensorFlow, PyTorch, etc).

7. **Intuitive User Interface (UI)**:
   - Design a clean and user-friendly interface for easy navigation.

- Include features like album covers, lyrics, and artist information.

  Technologies: HTML, CSS, JavaScript (React.js).

Project Timeline:

1. Week 1: Project Setup and Planning

   Define project scope, features, and technology stack.

2. Week 2: User Authentication and UI Basics

   Implement user registration and login (PHP and Node.js).

   Create basic UI components (HTML/CSS/React.js).

3. Week 3: Music Database and Recommendations

   Set up MySQL database schema for songs, artists, and playlists.

   Implement basic recommendation algorithms (Node.js).

4. Week 4 :Audio Streaming and Deployment

   Set up audio streaming using HTML5 and implement ML libraries.

   Deploy the app to a development server (Heroku, Netlify, or AWS).