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Project Design Phase - I
Solution Architecture

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Date	23 October 2023
Team ID	SI-GuidedProject-589174-1697038709
Project Name	Podcast Plus: A Redux-Inspired Podcast App
Maximum Marks	4 Marks

Team Members:

Team Leader: Nishant Dalal - 21BCE2983
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Solution Architecture:

Components:

Client Application: This is the front-end of the podcast app, which users interact with. It is an android app.

Application Server: This server manages user requests, handles authentication, and serves content. It communicates with the database server to fetch user data.

Database Server: This server stores user data (profiles, listening history, preferences), podcast metadata, episode information, and other relevant data.

User Database: Stores user profiles, listening history, preferences, and engagement data.

Content Database: Contains metadata for all available podcast episodes, including titles, descriptions, authors, and genres.

Feedback Database: Stores user-generated feedback, comments, and ratings.

Recommendation Engine: This component uses machine learning algorithms to provide personalized podcast recommendations based on user behavior and preferences.

User Authentication and Authorization: Ensures secure access to user accounts, allowing users to log in, access premium content (if subscribed), and manage their profiles.

User Engagement and Feedback Module: This module collects user feedback, manages community interactions, and handles feature suggestions and bug reports.

Data Flow:

- Users interact with the client application, making requests to discover new content, listen to episodes, and access personalized recommendations.

- Client applications communicate with the Web Server, which processes user requests and interactions.

- The User Management Service handles user registration, login, and profile management.

- The Content Discovery Service provides personalized content recommendations.

- The Content Delivery Service serves podcast episodes and metadata.

- The User Engagement and Community Service facilitates user interactions and community engagement.

- The Subscription and Payment Service manages premium subscriptions and payments.

- User data and podcast metadata are stored and retrieved from the User Database and Content Database.

- User authentication and authorization are managed by the Authentication and Authorization Server to ensure secure access.

- The Machine Learning and Recommendation Engine continuously analyzes user behavior and generates personalized podcast recommendations.