**Development Blueprint for Complaint Redressal System**

The objective of the Complaint Redressal System project for ABC Telecom Ltd. is to develop a comprehensive web-based application using Spring for backend and Angular for frontend. This system aims to facilitate efficient customer redressal services by enabling various user roles such as Administrator, Customer, Manager, and Engineer to perform specific tasks. Key objectives include empowering the Administrator to manage user lifecycles, enabling Customers to raise and track complaints, allowing Managers to assign complaints to Engineers based on customer PIN codes, and enabling Engineers to resolve complaints or escalate them if necessary. The system will incorporate recommended tools such as JUnit, Spring Boot, MySQL Database, Angular, and DevOps technologies for seamless integration and deployment. Additionally, the system will ensure appropriate access levels and user session management to enhance security and user experience.

**Project Repository and Authorship**

The source code for this endeavor is maintained in a version-controlled environment, with contributions by **Saurav Kumar**.

**Sprint Execution and Task Finalization:**

The project's implementation is scheduled to occur within a single sprint, focusing on delivering key functionalities of the Complaint Redressal System for ABC Telecom Ltd. During this timeframe, the following tasks are expected to be accomplished:

**Backend Development:**

* Set up the Spring framework for backend development.
* Implement user authentication and authorization using Spring Security.
* Create APIs for user management, complaint submission, and ticket management.

**Frontend Development:**

* + Develop the user interface using Angular for seamless navigation and interaction.
  + Design and implement login screens for different user roles (Admin, Customer, Manager, Engineer).
  + Create UI screens for complaint submission, ticket viewing, and feedback provision.

**Database Configuration:**

* + Configure MySQL Database to store user credentials, complaint details, and ticket information.
  + Implement JDBC driver for database connectivity in the Spring Boot application.

**Functionality Implementation:**

* + Enable Admin functionalities for managing user lifecycles and CRUD operations on users.
  + Implement Customer features for complaint submission, tracking, and feedback provision.
  + Develop Manager functionalities for viewing tickets, assigning complaints, and accessing customer feedback.
  + Implement Engineer features for viewing and resolving assigned tickets, updating ticket statuses, and viewing customer feedback.

**Testing and Quality Assurance:**

* + Conduct unit testing using JUnit to ensure the correctness of backend functionalities.
  + Perform integration testing to validate the interaction between frontend and backend systems.
  + Conduct user acceptance testing to verify the usability and effectiveness of the application.

**Documentation and Deployment:**

* + Document the project's architecture, design decisions, and implementation details.
  + Create user manuals and guides for using the Complaint Redressal System.
  + Deploy the application to a production environment using DevOps technologies like Git, GitHub, and Docker for efficient deployment and management.

**Complaint Redressal System User Experience Flow:**

The Complaint Redressal System is designed to provide a seamless and intuitive user experience for customers, managers, engineers, and administrators of ABC Telecom Ltd. Customers can easily log in to raise complaints, track their status, and provide feedback on resolutions. Managers have access to a dashboard displaying active complaints, enabling them to assign tasks to engineers based on location and monitor progress. Engineers can view assigned complaints, update their status, and escalate issues if needed. Administrators manage user accounts and oversee system activities. With a user-friendly interface and streamlined processes, the system ensures efficient complaint management and resolution, enhancing overall customer satisfaction and service quality.

**++Screenshot Attached**:



