

# PROJECT

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## 1. Hotel Management System App using Android

### Description

- The Hotel Management System (HMS) app is designed to streamline the operations of a restaurant, providing efficient management of orders, inventory, reservations, and staff through an Android application built using Android Studio. This app will help improve service quality, optimize workflows, and enhance the overall customer experience.

### Key Features

1. User Interface (UI):
  - Modern and intuitive UI designed using XML layouts.
  - Role-based interfaces for managers, chefs, waitstaff, and customers.
  - Support for multiple screen sizes and orientations.
2. Order Management:
  - Digital menu with categorized items, images, and detailed descriptions.
  - Easy order placement, modification, and cancellation.
  - Real-time order status updates.
  - Support for dine-in, takeaway, and delivery options.
3. Inventory Management:
  - Real-time tracking of stock levels.
  - Automated alerts for low stock and expirations.
  - Supplier management and purchase order creation.
  - Inventory reports with analytics.
4. Reservation System:
  - Table booking and reservation management.
  - Real-time table availability display.
  - Automated reservation confirmations and reminders.
5. Staff Management:
  - Employee scheduling and shift management.
  - Role-based task assignments and tracking.
  - Attendance logging and payroll integration.
  - Performance monitoring and feedback.
6. Customer Relationship Management (CRM):
  - Customer profiles with order history and preferences.
  - Loyalty programs and rewards system.

7. Billing and Payments:
  - Seamless bill generation with options for split billing.
  - Integration with various payment gateways.
  - Support for multiple payment methods (cash, card, digital wallets).
8. Analytics and Reporting:
  - Comprehensive dashboards with real-time data visualization.
  - Reports on sales, inventory, and staff performance.
  - Customer behavior and preference analysis.
9. Integration and Compatibility:
  - Integration with existing POS systems.
  - Compatibility with various hardware devices (printers, barcode scanners, etc.).
  - API support for third-party services and integrations.
10. Security and Compliance:
  - Secure data storage with encryption.
  - User authentication and role-based access control.
  - Compliance with industry standards and regulations.

### **Development Steps:**

1. Setup and Configuration
2. Design UI/UX
3. Develop Core Features
4. Integrate Billing and Payments
5. Implement Analytics and Reporting
6. Testing
7. Deployment and Maintenance