

# CollabEase

## App Concept: CollabEase

### Purpose:

A lightweight **team collaboration app** that combines task management, real-time brainstorming, and progress tracking for small teams or individuals working on projects. This app focuses on simplicity while integrating a playful, interactive interface to make teamwork enjoyable.

## Folder Structure

### Structure

```
/CollabEase
|
|— /assets                # Static resources
|   |— /images            # Icons, banners, avatars
|   |— /themes            # Predefined themes for customizat
ion
|   |— /sounds            # Notification tones and feedback
sounds
|
|— /lib                    # Main application logic (Flutter
or modular architecture)
|   |— main.dart          # App entry point
|   |— /models            # Data models
|       |— Task.dart      # Task data model
|       |— Project.dart   # Project data model
|       |— UserProfile.dart # Team member profiles
|   |— /screens           # Main screens of the app
|       |— DashboardScreen.dart # Overview of all projects/t
asks
|       |— TaskDetailScreen.dart # View and edit task detail
s
|       |— BoardScreen.dart    # Interactive Kanban board
|       |— TeamScreen.dart     # Team profiles and roles
|       |— ChatScreen.dart     # Real-time team chat
|       |— AnalyticsScreen.dart # Project progress and stat
s
|       |— SettingsScreen.dart # Customization and notific
ations
|   |— /widgets            # Reusable UI components
```

```

|   |   |─ TaskCard.dart           # Visual representation of
a task
|   |   |─ KanbanColumn.dart       # Drag-and-drop task column
s
|   |   |─ ChatBubble.dart         # Team chat messages
|   |   |─ ProgressBar.dart        # Overall progress indicato
rs
|   |   |─ TeamAvatar.dart         # Circular avatars for team
members
|   |   |─ AnalyticsGraph.dart     # Task completion stats
|   |   |─ /services               # App services
|   |   |─ TaskService.dart        # Add, edit, delete tasks
|   |   |─ ChatService.dart        # Real-time messaging syste
m
|   |   |─ AnalyticsService.dart   # Progress and project insi
ghts
|   |   |─ NotificationService.dart # Task reminders and upd
ates
|   |   |─ /utils                  # Helper functions
|   |   |─ DateUtils.dart          # Formatting deadlines and r
eminders
|   |   |─ ThemeUtils.dart         # Theme selection logic
|   |   |─ Constants.dart          # App-wide constants (e.g.,
priority levels)
|
|─ /backend                        # Optional backend services
|   |─ /api                       # API endpoints for tasks, chat, a
nd team management
|   |─ server.js                  # Main server file (if using Node.
js)
|   |─ /models                    # Backend schemas (tasks, project
s, users)
|   |─ /services                  # Analytics or notifications
|   |─ /database                  # Project data storage (e.g., Fire
base, MongoDB)
|
|─ /docs                          # Documentation
|   |─ README.md                  # Overview of the app
|   |─ API_Documentation.md     # API endpoint details
|   |─ UX_Wireframes.pdf         # Wireframe designs
|
|─ /test                          # Unit and integration tests
|   |─ TaskTests.dart
|   |─ ChatTests.dart
|   |─ ProgressTests.dart
|
|─ /config                        # Configuration files
|   |─ firebase.json              # Firebase configuration

```

```
|— .env          # Environment variables
|— package.json  # Backend dependencies
```

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## Features

### 1. Task Management

- Create, assign, and prioritize tasks for team members.
- Organize tasks into categories: To Do, In Progress, Done.

### 2. Kanban Board

- Drag-and-drop functionality for visually managing tasks.

### 3. Real-Time Chat

- Team messaging system with file sharing and mentions.
- Integrate emojis and reactions to keep things light.

### 4. Team Profiles

- View team members' profiles, roles, and contributions.
- Assign avatars and track individual performance.

### 5. Progress Tracking

- View charts and graphs of task completion rates.
- Monitor team productivity and upcoming deadlines.

### 6. Reminders and Notifications

- Get notified about upcoming deadlines and updates.

### 7. Themes and Customization

- Choose from various themes or design your own.

### 8. Cloud Sync and Collaboration

- Sync projects across devices and collaborate in real-time.
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