***QUIZ APP***

**1. Features of Quiz App**

**A. User Features**

1. **User Registration & Login**
   * Sign up via email/phone or guest mode.
   * Profile creation to save quiz history and scores.
2. **Category Selection**
   * Topics like Science, GK, History, Programming, etc.
   * Option to choose difficulty: Easy, Medium, Hard.
3. **Timed Quizzes**
   * Each question has a timer (e.g., 30 seconds).
   * Countdown visible to user.
4. **MCQ Format with Instant Feedback**
   * Multiple-choice questions (4 options).
   * Immediate feedback after answering (correct/incorrect).
5. **Score & Leaderboard**
   * Final score after quiz ends.
   * Compare with friends or global leaderboard.
6. **Review Mode**
   * View all questions, correct answers, and explanations.
7. **Offline Mode**
   * Download a quiz set to play without internet.
8. **Daily Challenge**
   * One quiz daily with special points for streaks.

**B. Admin Features**

1. **Question Management**
   * Add, edit, delete questions.
   * Tag with category & difficulty.
2. **User Analytics**
   * Track average scores, most popular categories, drop-off points.
3. **Leaderboard Control**
   * Remove fake scores or reset periodically.
4. **Push Notifications**
   * Notify users about new quizzes, daily challenges, or special events.

**2. Workflow of Quiz App**

**Step 1 – User Onboarding**

* **New User:** Registers or continues as guest.
* **Returning User:** Logs in, sees their last played quiz & score.

**Step 2 – Category & Difficulty Selection**

* User selects category → difficulty level.
* App fetches a set of questions from the database accordingly.

**Step 3 – Quiz Play**

* **Display Question 1** with 4 options.
* Timer starts.
* User selects an answer → feedback shown instantly (or after quiz ends, depending on setting).
* Moves to next question.

**Step 4 – End of Quiz**

* All questions completed or timer runs out.
* Score calculated: Correct answers × marks per question.
* Streaks & bonus points applied.

**Step 5 – Results & Review**

* User sees score, percentage, and rank.
* Option to review answers & explanations.
* Option to share score with friends.

**Step 6 – Leaderboard & Badges**

* Points added to global/local leaderboard.
* Badges unlocked for milestones (e.g., “10 Quizzes Completed”).

**Step 7 – Admin Updates**

* Admin adds new question sets & publishes them.
* Users get notified and can play new quizzes.

***EXPENSE TRACKER APP***

**1. Features**

**A. User Account & Authentication**

* **Sign up / Login** using email or phone.
* **Secure password storage** (hashing).
* Optional **Google or Facebook login**.

**B. Dashboard Overview**

* Summary of **total income, total expenses, and balance**.
* **Pie chart or bar graph** showing expense categories (Food, Transport, Bills, etc.).
* Monthly budget tracking.

**C. Income & Expense Management**

* Add, edit, delete **income entries** (salary, freelance, etc.).
* Add, edit, delete **expense entries** (food, rent, shopping, etc.).
* Attach **notes** and **receipts/images**.

**D. Categorization & Filters**

* Default categories (Food, Travel, Utilities, etc.).
* User can **add custom categories**.
* Filter by **date, category, or amount**.

**E. Budget & Alerts**

* Set a **monthly budget**.
* Get **notifications** when spending nears the limit.
* Weekly/monthly expense summary notifications.

**F. Data Visualization**

* **Pie charts** for expense distribution.
* **Line/bar charts** for monthly trends.

**G. Data Storage & Backup**

* Local storage (SQLite) or cloud sync (Firebase).
* Export data to **CSV or Excel**.

**H. Multi-Currency Support**

* Select preferred currency (₹, $, €, etc.).
* Currency conversion (if needed).

**2. Workflow**

1. **User Registration/Login**
   * User creates an account or logs in.
2. **Setup**
   * Choose currency.
   * Optionally set monthly budget.
   * Import previous data (optional).
3. **Adding Transactions**
   * Click “+” to add income or expense.
   * Select category, enter amount, date, and notes.
   * Optionally attach receipt photo.
4. **Viewing Transactions**
   * Transactions displayed in a list (most recent first).
   * Filter/search by date, category, or amount.
5. **Analytics & Reports**
   * View dashboard with total expenses, total income, and balance.
   * Check graphical insights (pie chart, bar chart).
   * Compare monthly/weekly spending.
6. **Budget Alerts**
   * App monitors expenses.
   * Sends notification if spending crosses a set percentage of budget.
7. **Data Management**
   * Export data to CSV/Excel for personal records.
   * Option to sync with cloud for backup.

***CAREER GUIDANCE APP***

**🎯 Features**

1. **Student Profile**
   * Enter rank, category, and preferred branch.
   * Optionally enter location preference.
2. **College Database**
   * List of B.Tech colleges with location, branch availability, closing ranks, and fee details.
3. **Search & Filter**
   * Filter by **branch**, **location**, **fees**, or **closing rank**.
   * Sort by **rank suitability**, **fees**, or **NIRF ranking**.
4. **College Details**
   * Shows:
     + Branches offered
     + Closing rank (previous year)
     + Fee structure
     + Placement stats
     + Hostel & facility info
5. **Seat Prediction**
   * Based on entered rank and category, predicts possible colleges.
6. **Shortlist & Compare**
   * Save shortlisted colleges.
   * Compare side-by-side.
7. **Counselling Guidelines**
   * Explains process for JoSAA / state counselling.
   * Important dates and documents required.

**Workflow – B.Tech College Criteria App**

**1. Home Screen**

* Welcome message.
* Two main buttons:
  1. **Find Colleges**
  2. **Counselling Guidelines**

**2. Student Input Section**

When the student taps **Find Colleges**:

1. **Enter Rank / Percentile** – The student inputs their entrance exam rank (e.g., JEE Main, State Exam).
2. **Select Category** – General / OBC / SC / ST / EWS.
3. **Select Branch Preferences** – e.g., CSE, ECE, ME, Civil, etc.
4. **Select Location Preference** – By state, city, or “No preference.”

**3. Processing**

* The app checks a **college database** with seat matrix, closing ranks, and branch availability for B.Tech programs.
* Applies **filters** based on:
  + Rank & category eligibility.
  + Available branches.
  + Location choice.

**4. Result Display**

* Displays a **list of eligible colleges** with details:
  + College Name.
  + Location (State, City).
  + Branches available.
  + Previous year cut-off.
  + Type: Govt / Private.
  + Accreditation & NIRF rank (if available).
* Option to **Sort** (by ranking, distance, fees).
* Option to **Save / Shortlist** colleges.

**5. College Details Page**

When a student clicks on a college name:

* Shows:
  + Overview of the college.
  + Courses offered.
  + Fee structure.
  + Hostel & facility details.
  + Placement records.
  + Counselling code (for filling in the choice list).

**6. Counselling Guidelines Section**

When the student taps **Counselling Guidelines**:

* Shows:
  + Step-by-step guide for filling the form.
  + Important dates.
  + Documents required.
  + How seat allotment works.
  + Refund rules.
  + Link to official counselling website.

**7. Saved Colleges**

* Students can view their **shortlisted colleges** later.
* Can remove or add notes to each college.

**8. Exit / Logout**

* Student can close app or log out after use.

***FARMER’S APP***

**Agro App – *Features***

1. **Crop Guidelines**
   * Step-by-step guides for different crops (season, soil, fertilizers, pest control).
   * Localized tips based on region and climate.
   * Alerts for sowing/harvesting times.
2. **Government Schemes**
   * List of active schemes for farmers.
   * Eligibility criteria, application process, and benefits.
   * Direct links or downloadable forms.
3. **Irrigation & Water Management Tips**
   * Best practices for water conservation.
   * Suitable irrigation techniques for different crops (drip, sprinkler, flood).
   * Seasonal water usage planning.
4. **Community Discussion Forum**
   * Farmers can ask questions, share experiences, and get answers.
   * Categorized discussions (crop issues, machinery, market prices).
   * Option to post images/videos for expert review.

**Workflow (Written)**

1. **User Opens App → Home Screen**
   * Simple menu with 4 main buttons:  
     Crop Guidelines | Government Schemes | Irrigation & Water Management | Community Forum
2. **Crop Guidelines Section**
   * User selects crop from a list (e.g., Wheat, Rice, Maize).
   * App shows cultivation guide, seasonal tips, fertilizer schedule, and pest control info.
3. **Government Schemes Section**
   * User browses available schemes with filters (Central Govt, State Govt).
   * Tapping a scheme shows full details, eligibility, and how to apply.
4. **Irrigation & Water Management Section**
   * User selects crop or farming style.
   * App gives best irrigation methods, water-saving tips, and seasonal planning advice.
5. **Community Forum Section**
   * Farmers join topic-specific groups.
   * Can post questions, images, or updates.
   * Other users and experts can reply or upvote useful posts.
6. **Extra**
   * Push notifications for new schemes or crop alerts.
   * Search function to find topics quickly.