

Kaun Banega Texhpati (KBT)

Website Layout & System Flow Document

1. Project Overview

Kaun Banega Texhpati (KBT) is a web-based quiz game inspired by the theme and flow of *Kaun Banega Crorepati*, designed for technical/academic quizzes.

Core Concept: - 20 questions per participant - Quiz window open for **24 hours** - Students can start the quiz **anytime within 24 hours** - Once started, the quiz must be **completed in one session** - **No logout, refresh, or re-login allowed during quiz** - **Final ranking is based on least completion time** (accuracy as eligibility)

2. Key Rules & Constraints (Must-Have)

Authentication & Access Rules

- Users may **log in multiple times** to the platform
- Login is allowed to:
 - View instructions
 - Check leaderboard
 - Access other non-quiz features
- **Quiz entry is allowed only once per user**
- Once a user clicks **Start Quiz**:
 - The attempt is marked as active
 - Re-entry or reattempt is permanently blocked

Quiz Rules

- Total Questions: **20 (fixed)**
- Question Type: MCQ (4 options)
- Navigation: **Next only (no back)**
- Timer:
 - Starts when user clicks **Start Quiz**
 - Stops automatically after Question 20 submission
- Once quiz is completed:
 - User may log in again
 - User **cannot start the quiz again**
- Disqualification if during an active attempt:
 - Browser refresh
 - Tab close
 - Logout attempt

- Session expiry
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3. User Roles

3.1 Student (Player)

- Register / Login
- Read instructions
- Start quiz
- Attempt 20 questions
- View submission confirmation
- View leaderboard (after submission)

3.2 Admin

- Create quiz
 - Upload questions
 - Open/close quiz window
 - Monitor attempts
 - View leaderboard
 - Export results
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4. Website Pages & Layout Structure

4.1 Landing Page (Home)

Purpose: Branding + Entry point

Sections: - KBT Logo & Tagline: "*Kaun Banega Texhpati – Test Your Tech Power*" - Hero Banner (KBC-style dark theme) - Quiz Details Card: - Total Questions: 20 - Duration: Based on completion time - Quiz Window: 24 Hours - Buttons: - Login - Instructions

4.2 Instructions Page

Purpose: Rule clarity & consent

Content Blocks: - Quiz Rules (clearly listed) - Timer behavior - No refresh / no exit warning - Leaderboard criteria (least time wins) - Disqualification conditions

Action: - Checkbox: "I have read and understood the rules" - Button: **Proceed to Login**

4.3 Authentication Page

Login

Fields: - Full Name - Email / Roll Number - College / Department - Password / OTP

Validations: - Already attempted → Access Denied - Quiz window closed → Access Denied

4.4 Waiting / Ready Screen

Purpose: Final checkpoint before quiz starts

Layout: - Welcome message with user name - Warning banner:

"Once you start, you must complete the quiz in one go." - Button: **Start Quiz**

Timer starts ONLY after clicking this button

4.5 Quiz Interface (Main Game Screen)

Theme: KBC-style dark mode

Layout Sections:

Header Bar

- Quiz Name: Kaun Banega Texhpati
- Question Number (e.g., Q 7 / 20)
- Live Timer (HH:MM:SS)

Question Panel

- Question text (large, centered)
- Optional code block (for technical questions)

Options Panel

- 4 MCQ options (A, B, C, D)
- Single selection only
- Locked after submission

Navigation

- Button: **Lock Answer & Next**

No back button

4.6 Auto-Submission Logic

Triggered when: - Question 20 submitted - Time ends (if max time enforced)

System Actions: - Stop timer - Save total time taken - Save answers - Mark attempt as completed

4.7 Submission Confirmation Page

Message: - "Your quiz has been successfully submitted" - Display: - Time taken - Attempt ID

Buttons: - View Leaderboard - Logout (disabled re-login)

4.8 Leaderboard Page

Ranking Logic: 1. All users who completed quiz 2. Sorted by: - Primary: **Least time taken** - Secondary (optional): Score

Columns: - Rank - Name - College - Time Taken - Score (optional)

5. Session & Security Design

Important Clarification: - Users may log in again after submission - Quiz access is permanently locked after the first successful attempt

Session Handling

- Use server-side session/token
- Single active session per user
- Session invalidated on refresh or tab close

Anti-Cheating Measures

- Disable right-click
 - Disable copy/paste
 - Tab-switch detection
 - Refresh detection
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6. Database Design (High-Level)

User Table

- user_id
- name
- email / roll
- college
- has_attempted (boolean)

Quiz Table

- quiz_id
- start_time
- end_time
- status

Question Table

- question_id
- quiz_id
- question_text
- options
- correct_option

Attempt Table

- attempt_id
 - user_id
 - start_time
 - end_time
 - total_time
 - score
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7. Tech Stack (Suggested)

Frontend

- React / Next.js
- Tailwind CSS (dark KBC theme)

Backend

- Node.js + Express
- REST APIs

Database

- MySQL / PostgreSQL

Auth & Sessions

- JWT + Server session validation
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8. Future Enhancements

- Lifelines (50-50, Skip)
 - Live admin dashboard
 - Certificates for top performers
 - Mobile-friendly PWA version
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9. Summary

This document defines the **complete layout, flow, rules, and structure** for building the *Kaun Banega Texhpati* quiz platform with strict timing, fairness, and leaderboard-based competition.

Next Step: - UI wireframes - Database schema (detailed) - API flow diagram - Development roadmap