**High-Level UI/UX Design**

* **Theme:** Basketball-centric, sporty, and engaging.
* **Color Scheme:** Primarily orange, black, and white, with a vibrant blue as an accent color.
* **Typography:**
  + Headings: Bold, sporty font (e.g., something resembling jersey lettering or scoreboard numbers).
  + Body Text: Clean, highly legible sans-serif font.
* **Layout:**
  + **Home Page:** Hero section with a prominent headline ("Test Your Basketball IQ!") and a clear "Start Quiz" call-to-action button. Scoreboard-inspired header.
  + **Quiz Page:** Clean layout to display questions and answer options. Clear indication of question progress (e.g., "Question 3 of 10").
* **Design Elements:**
  + Subtle background textures (basketball court or net).
  + Basketball/hoop icons where appropriate.
  + Minimal, non-distracting animations (e.g., a bouncing basketball icon).

**Sitemap (Mermaid Diagram)A black and white background with white lines

Description automatically generated**

**Detailed Component Hierarchy**

* **App**
  + **Header** (Scoreboard-inspired)
    - Logo (Basketball icon)
    - Title ("Trivia.AI")
  + **Home**
    - HeroSection
      * Headline (e.g., "Test Your Basketball IQ!")
      * StartQuizButton
    - (Optional) LeaderboardPreview
  + **Quiz**
    - ProgressBar (Indicates question progress)
    - QuestionDisplay
      * QuestionText
    - AnswerOptions
      * AnswerOption (Multiple instances)
    - (Optional) NavigationButtons (Next, Previous - if applicable)
  + **Footer**
    - Copyright information

**Page-by-Page Breakdown**

**Home Page**

* **User Stories:**
  + As a user, I want to see a clear and inviting landing page that immediately tells me what the site is about.
  + As a user, I want to be able to easily start a quiz with a single, prominent button.
  + As a user, I want to get a sense of the site's theme (basketball) immediately upon landing.
* **Acceptance Criteria:**
  + The page has a hero section with a basketball-related background or texture.
  + The headline "Test Your Basketball IQ!" (or similar) is prominently displayed.
  + A large, clearly labeled "Start Quiz" button is present in the hero section.
  + The header includes a scoreboard-like design with the site title and logo.
  + The page is responsive and displays correctly on different screen sizes.
* **Technical Considerations:**
  + The "Start Quiz" button should trigger navigation to the Quiz page.
  + The hero section background should be optimized for performance (consider image size and format).
  + The scoreboard header should be implemented using appropriate HTML elements (e.g., <div>, <span>) and CSS for styling.

**Quiz Page**

* **User Stories:**
  + As a user, I want to see one question at a time with clear answer choices.
  + As a user, I want to know my progress through the quiz (e.g., "Question 3 of 10").
  + As a user, I want the UI to be clean and uncluttered so I can focus on the questions.
  + As a user, I want feedback on whether my answer is correct or incorrect (this could be immediate or at the end of the quiz).
* **Acceptance Criteria:**
  + Each question is displayed clearly, with sufficient spacing between the question text and answer options.
  + Answer options are clearly distinguishable from each other (e.g., using buttons or radio buttons).
  + A progress bar or text indicator (e.g., "Question x of y") is always visible.
  + The page is responsive and displays correctly on different screen sizes.
  + Correct/incorrect feedback is provided (implementation details to be determined - could be immediate or summary at the end).
* **Technical Considerations:**
  + The quiz logic should be implemented to handle fetching questions, tracking user answers, and calculating scores.
  + Consider using state management (e.g., React Context or a state management library) to manage the quiz state.
  + The progress bar should be dynamically updated as the user progresses through the quiz.
  + Accessibility: Ensure the quiz is navigable using keyboard controls and screen readers.