**Step by Step Guide for setting up Blog project with Sanity:**

**Part 1: Sanity.io Headless CMS Setup**

1. **Create Sanity Account & Project:**
   * Go to [sanity.io/get-started](https://www.google.com/url?sa=E&q=https%3A%2F%2Fwww.sanity.io%2Fget-started).
   * Create a new account or log in.
   * Click "New Project" and follow the prompts. Choose a "Blog" template or an "Empty project" and name it appropriately (e.g., "MetabolicMosaic-Studio").
   * Select a dataset name (e.g., production).
2. **Initialize Sanity Studio Locally:**
   * Open your terminal.
   * Install Sanity CLI globally if you haven't: npm install -g @sanity/cli
   * Navigate to where you want your Sanity Studio project to live (this will be a *separate* directory from your React frontend).
   * Run: sanity init
     + Choose "Create new project".
     + Select the project you just created in the browser.
     + Choose your dataset (e.g., production).
     + Select "Clean project with no predefined schemas" (or "Blog" if you chose that, and you can then clean up/add these schemas).
     + Choose JavaScript or TypeScript for schemas (TypeScript is recommended).
     + Install dependencies.
   * Navigate into your new Sanity Studio directory: cd your-sanity-studio-name
   * Run sanity start to open the studio at http://localhost:3333.
3. **Add/Update Sanity Schemas:**
   * In your Sanity Studio directory, navigate to schemas/.
   * Create the files: author.ts, post.ts, comment.ts, category.ts with the content provided above.
   * Open schemas/index.ts (or schemas.ts) and import/export these new schemas as shown in the example above.
   * Go back to http://localhost:3333 in your browser. The Studio should automatically rebuild and show the new document types (Author, Blog Post, Comment, Category) in the left sidebar.
4. **Create API Token for Frontend:**
   * Go to your Sanity project dashboard: [manage.sanity.io](https://www.google.com/url?sa=E&q=https%3A%2F%2Fmanage.sanity.io%2F)
   * Select your project.
   * Go to "API" tab.
   * Under "Tokens", click "Add new token".
   * Name it (e.g., "Frontend Read/Write").
   * Set **Permissions to "Editor"**. (This is crucial for comments, as "Viewer" is read-only).
   * **Copy this token immediately!** You will only see it once.
5. **Populate Content:**
   * In your Sanity Studio (http://localhost:3333), create at least one Author and a few Blog Post documents.
   * Make sure to link posts to an author and use the Portable Text editor for the body content. Upload images for mainImage.
   * Add some comments via the Studio, ensuring to set approved: true for those you want to see on the site initially.

**Part 2: Frontend (React) Integration**

1. **Update package.json:**
   * In your React frontend project, open package.json.
   * Add the new dependencies listed above (@portabletext/react, @sanity/client, @sanity/image-url, @hcaptcha/react-hcaptcha, react-share, date-fns, @heroicons/react).
   * Run npm install or yarn add in your frontend project's root.
2. **Add src/sanity.ts:**
   * Create src/sanity.ts with the provided content.
3. **Update src/types.ts:**
   * Replace its content with the provided new src/types.ts.
4. **Remove src/data/posts.ts:**
   * Delete this file as data will now come from Sanity.
5. **Add New Components:**
   * Create src/components/PortableTextContent.tsx, src/components/CommentList.tsx, src/components/CommentForm.tsx, and src/components/SocialShare.tsx with the provided content.
6. **Modify Existing Pages/Components:**
   * Update src/components/BlogPostCard.tsx with the provided content.
   * Update src/pages/BlogListPage.tsx with the provided content.
   * Update src/pages/BlogPostPage.tsx with the provided content.