**DYNAMIC-PAGE-APP DFD**

**Level 0 (Context Diagram)**

This is the highest-level DFD, showing the entire system as a single process and its interaction with external entities.

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|  External Entities |

|                       |

|   - User              |

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          | Navigates, Views content

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|Dynamic page app  | Handles routing, fetches data, displays content

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| API | Provides post data

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**Explanation**:

* **External Entities:**
* **User:** Interacts with the app by navigating between pages and viewing content.
* **Process:**
* **React** **App:** The main application that handles routing, fetches data, and displays content.
* **Data Stores:**
* **API (JSONPlaceholder):** Provides dynamic data for the posts.

**Description:**

* The User interacts with the React App by navigating to different pages (e.g., Home, About, Contact, Post).
* The React App fetches data from the API (e.g., post data for /post/:id) and displays it to the user.

**Level 1 DFD (Decomposition of Process)**

This breaks down the React App process from Level 0 into smaller sub-processes.

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| External Entity | | External Entity |

| (User) | | (API) |

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| Process: 1.1 – | | Process: 1.2 - |

| Handle Routing | | Fetch Data |

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| Data Store: API | | Data Store: API |

| (JSONPlaceholder)| | (JSONPlaceholder) |

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| Process: 1.3 - |

| Display Content |

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| External Entity: User |

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**Explanation**:

1. **External Entities:**
   * **User:** Interacts with the app by navigating between pages and viewing content.
   * **API (JSONPlaceholder):** Provides dynamic data for the posts.
2. **Processes:**
   * **1.1 Handle Routing:** Manages navigation between pages (Home, About, Contact, Post, 404).
   * **1.2 Fetch Data:** Fetches dynamic data (e.g., post data) from the API.
   * **1.3 Display Content:** Renders the appropriate content based on the route and fetched data.
3. **Data Stores:**
   * **API (JSONPlaceholder):** Stores and provides post data.

**Data Flow**

1. **User → 1.1 Handle Routing**:
   * Navigation requests (e.g., /, /about, /post/1).
2. **1.1 Handle Routing → 1.2 Fetch Data**:
   * Route parameters (e.g., id from /post/:id).
3. **1.2 Fetch Data → API**:
   * Data requests (e.g., fetch post data for /post/:id).
4. **API → 1.2 Fetch Data**:
   * Post data (e.g., title, body for a specific post).
5. **1.2 Fetch Data → 1.3 Display Content**:
   * Fetched data (e.g., post title, body).
6. **1.3 Display Content → User**:
   * Rendered content (e.g., Home page, About page, Post page).