**Project Description:**

The  **Routing Application System** manages navigation by dynamically rendering pages based on user interactions. Users click navigation links, triggering route updates that load the corresponding page (Home or About). React Router ensures seamless, client-side routing without full-page reloads.

### **Level 0 (Context Diagram)**

At the highest level, we have just one process, which represents the system as a whole.

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| External Entities |

| - User |

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| Navigation System |

| (Process: 1.0) |

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| Web Pages (Views) |

| - Home Page |

| - About Page |

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**Explanation**:

* **External Entity (User):** The user interacts with the navigation system by clicking on links.
* **Process (Navigation System):** The system processes user interactions and determines which page to display***.***
* **Data Store (Web Pages):** Stores different views (Home and About pages) that the system renders based on user navigation.

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

Now, let's break down the **Routing Application System** process (Process 1.0) into more detailed steps.

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| External Entity | | Data Store |

| (User) | | Web Pages |

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| Process: 1.1 - Click | | Process: 1.2 - Route |

| Navigation Link | | to Selected Page |

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| Process: 1.3 – Render |

| Selected Page Content |

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**Explanation**:

* **Process 1.1 (Click Navigation Link):** User clicks on a link (Home or About).
* **Process 1.2 (Route to Selected Page):** The system processes the route change and determines which page to display.
* **Process 1.3 (Render Selected Page Content):** The corresponding page (Home or About) is displayed dynamically***.***

### **Data Flow**

* The user clicks a navigation link.
* The system detects the selected route and updates the displayed content.
* The corresponding page (Home or About) is rendered dynamically

### **Notes:**

* The system uses React Router for handling navigation.
* The Link component enables client-side routing, preventing full-page reloads.
* Future enhancements could include additional pages, dynamic routing parameters, or user authentication for restricted pages.