Problem:

1. Problem (domain)
2. Abstraction
3. Mathematical
4. generic representation
5. algorithm (Example: graph)

JSON:

1. User Interface
2. Graph of Connectivity

Power of AI:

1. Use AI to create the JSON (60%)
2. Use Humans to double check (30%) - Human Loop

Problem Agnostic Code Unified:

- Stateless React Code
- Graph Traversal (Car, flight, road)
- State (JSON) - gives state to the react frontend

PRO VERSION - Mastery of these concepts and their application.

Core Idea

Travel Info - graph ---> **JSON**

Hyderabad ---> Dubai -----> XYZ

JSON entities involved:

- Nodes - {node1, node2, node3}
- Edge - {node1: node2, node2: node3}

Abstraction:

Step 1: Find out the core UI components involved

Example of Common Components: Filters, Tables, Tabs, Radio button, etc.

```sql
----------> Abstraction Layer <-------------

+-------------------------+         +-------------------------+
|                         |         |                         |
|      JSON Data          |   ->    |    React Code           |
|                         |         |    (Frontend)           |
|                         |         |                         |
+-----------+-------------+         +-----------+-------------+
                                                |
                                                |
                                                v
            +-----------+-------------+         +-----------+-------------+
            |                         |         |                         |
            |   Flight Application    |         |   Car Application       |
            |   (Backend API)         |         |   (Backend API)         |
            |                         |         |                         |
            +-----------+-------------+         +-----------+-------------+


            +-----------+-------------+         +-----------+-------------+
            |                         |         |                         |
            |   Train Application     |         |   Other Applications    |
            |   (Backend API)         |         |                         |
            |                         |         |                         |
            +-------------------------+         +-------------------------+
```

UI – How it works?