

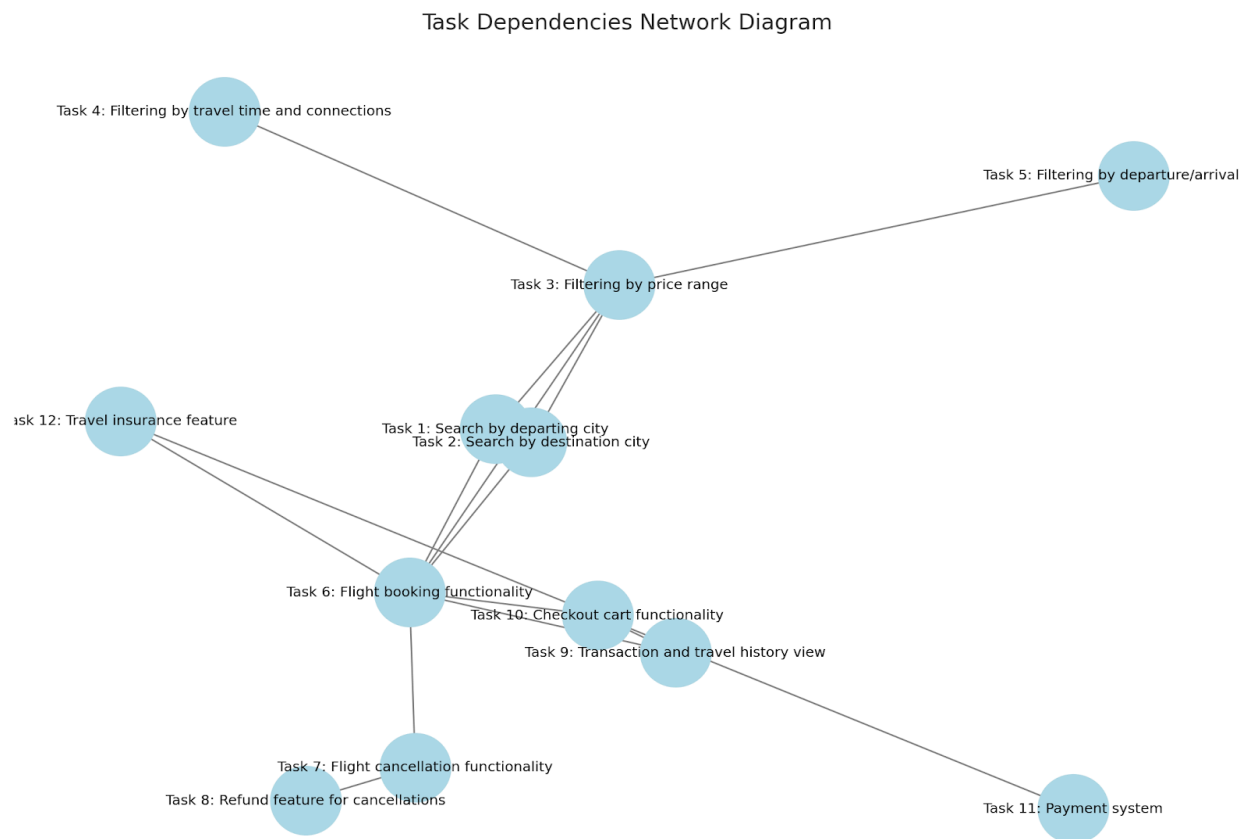
## Task Dependencies and Network Diagram

Below is a list of tasks with their dependencies:

1. **Search by departing city** (No dependencies)
2. **Search by destination city** (No dependencies)
3. **Filtering by price range** (Dependent on Task 1 and Task 2)
4. **Filtering by travel time and connections** (Dependent on Task 3)
5. **Filtering by departure/arrival dates** (Dependent on Task 3)
6. **Flight booking functionality** (Dependent on Tasks 1, 2, and 3)
7. **Flight cancellation functionality** (Dependent on Task 6)
8. **Refund feature for cancellations** (Dependent on Task 7)
9. **Transaction and travel history view** (Dependent on Task 6)
10. **Checkout cart functionality** (Dependent on Tasks 6 and 9)
11. **Payment system** (Dependent on Task 10)
12. **Travel insurance feature** (Dependent on Task 6 and Task 10)
13. **Add/remove admin functionality** (Independent task)

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## Network Diagram



Here is the network diagram visualizing task dependencies. It illustrates the sequence of tasks and highlights their relationships.

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### **Critical Path**

Based on the dependencies the critical path: 1 → 3 → 6 → 7 → 8 → 10 → 11

This path involves:

- Searching by departing city
  - Filtering by price range
  - Booking functionality
  - Cancellation functionality
  - Refund feature
  - Checkout cart functionality
  - Payment system
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### **Keeping the Sprint on Schedule**

To stay on schedule:

- Focus was on starting tasks without dependencies early.
- Conducting progress checks to prioritize tasks on the critical path.
- Communicating to ensure dependencies were addressed earlier.

### **Issues Encountered**

Despite efforts, the sprint faced delays due to:

1. Delayed involvement from teammates, which slowed progress on critical path tasks.
  2. Features implemented by some teammates requiring significant debugging, which added unexpected delays.
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### **Lessons Learned**

- Emphasize early engagement of all team members.
- Allocating more time for debugging and testing.
- Better communication within the team to ensure progress alignment.