Utilization Of Algorithms, Dynamic Programming, Optimal Memory Utilization

1. User Interface Design:
    - Create an intuitive interface for employees to submit travel requests.
    - Implement a dashboard for managers to review, approve, or reject requests.
2. Database Management:
    - Store employee data, travel requests, and approval statuses in a secure database.
    - Utilize a relational database management system (RDBMS) for efficient data handling.
3. Algorithm Implementation:
    - Employ algorithms for analyzing travel requests based on predefined criteria (e.g., budget, travel policies).
    - Implement sorting and filtering algorithms to prioritize requests based on urgency and relevance.
4. Dynamic Programming:
    - Use dynamic programming to optimize resource allocation and scheduling for multiple travel requests.
    - Develop algorithms to dynamically adjust travel itineraries based on changing constraints and priorities.
5. Optimal Memory Utilization:
    - Employ memory-efficient data structures to store and manage large datasets efficiently.
    - Implement caching mechanisms to reduce redundant data retrieval operations.