

Solution Architecture:

1. Front-end Interface:

- Web or mobile application for users to submit travel requests.
- User authentication and authorization mechanism.

2. Back-end Services:

- User management system for handling user data and permissions.
- Travel request management system to process and store travel requests.
- Integration with the corporate's existing systems, such as HR and finance.

3. Database Management:

- Structured database for storing user data, travel requests, and approvals.
- Ensure data security and compliance with relevant regulations.

4. Approval Workflow:

- Configurable workflow engine for defining the approval process.
- Automated notifications to approvers and requesters at various stages.

5. Integration Services:

- Integration with external travel services for booking flights, hotels, and transportation.
- Integration with financial systems for budget management and cost tracking.

6. Security Measures:

- Implement secure data transmission using encryption protocols (HTTPS).
- Role-based access control (RBAC) to ensure data security and privacy.

7. Analytics and Reporting:

- Analytics dashboard for tracking travel requests, approvals, and rejections.
- Reporting tools for generating insights into travel patterns and expenses.

8. Scalability and Performance:

- Ensure the architecture is scalable to handle increasing user loads and data volumes.
- Implement caching mechanisms for improved performance.

9. Compliance and Regulations:

- Ensure compliance with industry-specific regulations and data privacy laws.
- Implement data retention policies and audit trails for regulatory compliance.

10. Monitoring and Maintenance:

- Logging and monitoring tools for tracking system performance and user activities.
- Regular maintenance and updates to ensure the application remains secure and efficient.