# 1. Project Overview

The goal of this project is to develop an online platform (website) that allows users to search, reserve, and pay for train tickets digitally. The platform will be user-friendly, secure, and accessible from any device .

# 2. Technical Feasibility

- Frontend (Website): React.js

- Backend: Node.js or Django

- Database: PostgreSQL or MySQL

- Payment Integration: APIs for Fawry, Paymob, Visa/MasterCard

- Railway Integration: Official API to fetch schedules, availability, and confirm bookings

- Hosting: Cloud servers (AWS or DigitalOcean)

- Security: SSL encryption, secure login (OTP), and protection from cyber attacks

# 3. Operational Feasibility

- Team Requirements:

- Project Manager  
 - Frontend & Backend Developers  
 - UI/UX Designer  
 - Customer Support Staff

- Customer Service: Chatbot or live support, email support for issues

- Maintenance: Regular updates, server monitoring, bug fixing

# 4. Economic Feasibility

Estimated Costs:

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| --- | --- |
| Item | Cost |
| Website | $4,000 |
| Hosting & Server Setup | $1,000/year |
| Marketing | $2,000 |
| Maintenance & Support | $1,000/year |

Revenue Sources:

- Booking service fee (e.g. $0.25 per ticket)

- Advertisements

- Partnerships with travel or transport agencies

Profitability:

- Expected users/month: 50,000+

- Estimated ROI: Within 1 year if marketed properly

# 5. Legal Feasibility

- Permissions Required:

- Agreement with National Railway Authority  
 - License to operate online booking service

- Data Privacy:

- Must comply with data protection regulations (GDPR/PDPL)  
 - Secure handling of personal and payment data

# 6. Time Feasibility

Phase-wise Development Time:

|  |  |
| --- | --- |
| Phase | Duration |
| Requirements Analysis | 1 week |
| UI/UX Design | 2 weeks |
| Development (Web) | 8-10 weeks |
| Testing | 2 weeks |
| Pilot Launch | 1 week |
| Final Launch | 3 months total |