

**Last Date of Submission:** 31 Jan 2025

**1. Course Information**

* **Course Name: Web Programming**
* **Instructor Name: Prof. Preeti Agrawal**
* **Semester/Year: Sem IV, Year 2**

**2. Team Information**

* **Team Members:**
  1. Riddhima Ghule, B2, A237
  2. Gargee Thakur, B2, A238
  3. Tanvi Kenjale, B2, A259

**3. Project Title – Ticket Booking System and Planner**

**4. Objectives**

* Clearly define the purpose and goals of the project (bullet points preferred).  
  + A user-friendly ticket and hotel booking system for flights, trains and other transports with a smooth and responsive AI.
  + Provide transport and route recommendations.
  + Provide real time updates on ticket prices and availability.

**5. Technologies to be Used**

* List the primary technologies, frameworks, and tools planned for the project.  
  + **Frontend:** React.js, HTML, CSS
  + **Backend:** Node.js, Express.js
  + **Database:** MySQL
  + **Others:** Canva

**6. Innovation/Research Angle**

* Briefly explain the innovation or research focus of the project:
  + How does the project solve an existing problem innovatively?
  + What research gaps or opportunities does it address?

1. We will provide route optimization/recommendation to suggest best combination of transport modes based on cost and time.
2. Set alerts when ticket prices go down.
3. Save user’s travel preferences for future reference or suggestions.
4. Gamified exploration: Users get reward coupons, discounts or points for travelling certain distance or visiting certain attractions.

**7. Contribution of Each Member**

* Clearly define the responsibilities of each team member:

|  |  |
| --- | --- |
| Member Name | Role |
| Riddhima Ghule | Front-end: HTML, Database Connectivity |
| Gargee Thakur | Front-end: CSS3, Database Connectivity |
| Tanvi Kenjale | Backend: JS |

**8. Identify 15 to 20 research papers (IEEE, Springer, Elsevier, ACM only)**

1. [VirtualTour | Proceedings of the 14th ACM international conference on Multimedia](https://dl.acm.org/doi/abs/10.1145/1180639.1180762)
2. [Where to Go on Your Next Trip? | Proceedings of the 38th International ACM SIGIR Conference on Research and Development in Information Retrieval](https://dl.acm.org/doi/abs/10.1145/2766462.2776777)
3. [Semantically enriched web services for the travel industry | ACM SIGMOD Record](https://dl.acm.org/doi/abs/10.1145/1031570.1031575)
4. [Design and Implementation of Travel Website Based on Java Web | IEEE Conference Publication | IEEE Xplore](https://ieeexplore.ieee.org/abstract/document/10090730)
5. [UI / UX Design of Traveling Application "Traveliv" Using Design Thinking Method | IEEE Conference Publication | IEEE Xplore](https://ieeexplore.ieee.org/abstract/document/10638913)
6. [Advanced Web Technologies and E-Tourism Web Applications | SpringerLink](https://link.springer.com/referenceworkentry/10.1007/978-3-030-05324-6_15-1)
7. [Database Connectivity | SpringerLink](https://link.springer.com/chapter/10.1007/978-1-4615-0595-2_37)
8. [Travel Booking and Management Application: TravelBel | SpringerLink](https://link.springer.com/chapter/10.1007/978-981-16-5655-2_6)
9. [Smart Ticketing for Modern Travel: An Optimized E-Ticketing System with QR Code Features | IEEE Conference Publication | IEEE Xplore](https://ieeexplore.ieee.org/abstract/document/10837452)
10. [Intelligent Agent based Ticket Booking System | IEEE Conference Publication | IEEE Xplore](https://ieeexplore.ieee.org/abstract/document/10575456)
11. [Green Destination Recommender: A Web Application to Encourage Responsible City Trip Recommendations | Adjunct Proceedings of the 32nd ACM Conference on User Modeling, Adaptation and Personalization](https://dl.acm.org/doi/abs/10.1145/3631700.3664909)
12. [Travel Recommendation by Mining People Attributes and Travel Group Types From Community-Contributed Photos | IEEE Journals & Magazine | IEEE Xplore](https://ieeexplore.ieee.org/abstract/document/6521356)
13. [Smart Travel Planner: A mashup of travel-related web services | IEEE Conference Publication | IEEE Xplore](https://ieeexplore.ieee.org/abstract/document/6749499)
14. [Front end optimization methods and their effect | IEEE Conference Publication | IEEE Xplore](https://ieeexplore.ieee.org/abstract/document/6859613)
15. [Java Database Connectivity | SpringerLink](https://link.springer.com/chapter/10.1007/978-1-4471-0017-1_9)
16. [[IEEE 2006 2nd International Conference on Information & Communication Technologies - Damascus, Syria (24-28 April 2006)] 2006 2nd International Conference on Information & Communication Technologies - Web Database Connectivity Methods (using Mysql) in Windows Platform | 10.1109/ICTTA.2006.1684995-Sci\_hub](https://www.wellesu.com/10.1109/ICTTA.2006.1684995)

**9. Identify 5 to 7 similar web applications and compare them with your project**

1. **EaseMyTrip**
2. **Goibibo**
3. **Trivago**
4. **MakeMyTrip**
5. **Agoda**

**10. Planned Milestones and Strategy for Execution**

* **Milestones**: Divide the project into achievable stages with deadlines.  
  + Week 1-2: Requirement analysis and initial design.
  + Week 3-4: Database setup and backend development.
  + Week 5-6: Frontend integration and testing.
* **Execution Strategy**:
  + Explain steps to be followed for execution

1. Identified the features of the web application.
2. Created a template of the application including all the features.
3. Create wireframe and UI designs.
4. Create and define database schemas and tables.
5. Create and set up backend servers and implement APIs.
6. Connect database to backend.
7. Develop and connect frontend to backend.
8. App testing to fix bugs and optimizing the performance.