

Project name: Vihari  
Project number: 21

Project Domain area: Travel  
Sub-domains (if any): Tour

1. Ubiquitous language: Define key domain terms or shared vocabulary and their meaning.

| Vocabulary | Meaning   |
|------------|---|
| User       | An individual who interacts with the website and book tickets.  |
| Agent      | An agent is a user who registers on the website to add new buses and tours.   |
| Admin      | An Admin is a person who has the authority to block agents and delete users. They also review and approve agents' profiles before accepting them onto the platform.   |
| Bus        | Represents a mode of transportation offered as part of travel services. Buses are used to provide transportation for users between destinations   |
| Price      | Represents a monetary value. It indicates the cost associated with travel services, bookings, or other transactions on the website.   |
| Duration   | Represents the duration of a travel service. It denotes the length of time required for a particular travel activity, such as a bus journey.  |
| Booking    | Refers to a reservation made by a user for a specific travel. A booking typically includes details such as the bus selected, the user making the booking, bus details and any associated payment information. |
| Payment    | Represents a payment made by a user for a booking. This includes transactions initiated by users to confirm their bookings or purchase travel-related services.   |

|                     |  |
|---------------------|--|
| Tour                | Represents a tour name,price and places in that tour |
| Destinations        | Places or locations to be visited by travelers       |
| Cancellation Policy | User can cancel the ticket                           |
| Payment Gateway     | Online system for processing payments                |

2. Domain model: Identify each of the following in your project and describe them.
- a. Entities

| Entity | Description  | Pseudo code   |
|--------|--|---|
| User   | Individuals who register and use the website for travel              | <pre>User{   firstName:String,   LastName:String,   email:String,   password:String,   mobile:String }</pre>        |
| Tour   | Specific trip or journey offered to travelers                        | <pre>Tours {   TourName:String,   TourPrice:Number,   TourImageUrl:String,   agent:agentId   Places:placeId }</pre> |
| Admin  | Administrator who manages the Agencies and users.                    | <pre>Admin{   firstName:String,   lastName:String,   email:String,   password:String, }</pre>                       |
| Agent  | Represents those who want to add their services for buses and trips. | <pre>Agent{   agencyName:String,   password:String,   email:String,   Bus:busId   Tours:tourId }</pre>              |

|       |   |  |
|-------|---|--|
| Buses | Represents the Bus from source to destination | <pre> Bus{ Agent: agentId SourceName:String, DestinationName:String, departureTime:String, ArrivalTime:String, Duration:String, TicketPrice:Number, BusType:String, ImageUrl:String } </pre> |
|-------|---|--|

b. valueObjects

| valueObjects      | Description                                      | Pseudo code   |
|-------------------|--|---|
| Ticket Price      | Represents the price of a bus.                   | <pre> Buses{ Tktprice:Number } </pre>                 |
| Previous Bookings | Represents the booking history of the user.      | <pre> Tickets{ UserId:string, BusId:string } </pre>   |
| Bus Duration      | Represents the duration of a particular bus.     | <pre> Buses{ Durtime:string } </pre>                  |
| Location          | Represents the source and destination of the bus | <pre> Buses{ Srcname:string, Destname:string } </pre> |
| Destinations      | Represents the tour name                         | <pre> Tours{ Tourname:string } </pre>                 |
| Tour Price        | Represents the price of a tour.                  | <pre> Tours{ Tourprice:Number } </pre>                |

c. Aggregates

| Aggregate          | Description                            | Entities           | valueObjects                              | Pseudo code |
|--------------------|--|--------------------|---|-------------|
| Traveler Aggregate | Collection of user related attributes  | User,buses, tours  | Bus,duration, Location, Previous bookings | User_id     |
| Agent Aggregate    | Collection of agent related attributes | Agent,buses, tours | Bus Duration, Location, Ticket Price      | Agent_id    |
| Bus Aggregate      | Collection of bus related attributes   | buses              | Bus Duration, Bus Location, Ticket Price  | Bus_id      |
| Tour Aggregate     | Collection of tour related attributes  | tours              | Tour                                      | Tour_id     |

d. Services

| Service       | Description  | Aggregates      |
|---------------|--|-----------------|
| User Service  | Book buses,Profile,account edit  | User            |
| Agent Service | Add bus,add tour,update bus,update tour,delete bus,delete tour   | Agent           |
| Admin Service | Manages users and agents pending requests can be accepted or rejected and can block agents and delete users. | Agent,User,Bus  |
| Bus Service   | Handles the booking of buses to users and adds their buses to the agency.                                    | Bus,User,Agent  |
| Tour Service  | Manages the booking of trips to users and adds their trips for agencies.                                     | Tour,User,Agent |

|                 |  |                    |
|-----------------|--|--------------------|
| Payment Service | Integrates with payment gateways, processes payment requests, manages transaction states, and communicate payment status to users. | User, Bus, Booking |
|-----------------|--|--------------------|

e. Repositories

MongoDB