***Online Bus Booking System Reference Document   
  
Environment:****Java Version: 17   
Spring Boot Version: 2.7  
Angular Version: 16.1  
Node Js: 18.16.1  
Typescript 5.1.6* ***Schema:***

1. ***User Table:*** *CREATE TABLE `user` (*

*`user\_id` int NOT NULL,*

*`email` varchar(20) DEFAULT NULL,*

*`name` varchar(20) DEFAULT NULL,*

*`password` varchar(20) DEFAULT NULL,*

*PRIMARY KEY (`user\_id`)*

*) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4\_0900\_ai\_ci;*

1. ***Booking Table*** *CREATE TABLE `booking` (*

*`booking\_id` int NOT NULL,*

*`amount` int DEFAULT NULL,*

*`name` varchar(20) DEFAULT NULL,*

*`quantity` int DEFAULT NULL,*

*`refnumber` varchar(255) DEFAULT NULL,*

*`status` varchar(255) DEFAULT NULL,*

*PRIMARY KEY (`booking\_id`)*

*) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4\_0900\_ai\_ci;*

1. ***Locations Table:****CREATE TABLE `location` (*

*`loc\_id` int NOT NULL,*

*`city` varchar(20) DEFAULT NULL,*

*`state` varchar(20) DEFAULT NULL,*

*`terminal` varchar(20) DEFAULT NULL,*

*PRIMARY KEY (`loc\_id`)*

*) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4\_0900\_ai\_ci;*

1. ***Buses Table:****CREATE TABLE `bus` (*

*`bus\_id` int NOT NULL,*

*`name` varchar(20) DEFAULT NULL,*

*`number` varchar(20) DEFAULT NULL,*

*PRIMARY KEY (`bus\_id`)*

*) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4\_0900\_ai\_ci;*

1. ***Schedule Table:****CREATE TABLE `schedule` (*

*`schedule\_id` int NOT NULL,*

*`availability` int DEFAULT NULL,*

*`bus` varchar(255) DEFAULT NULL,*

*`date` varchar(255) DEFAULT NULL,*

*`destination` varchar(255) DEFAULT NULL,*

*`etadate` varchar(255) DEFAULT NULL,*

*`etatime` varchar(255) DEFAULT NULL,*

*`price` int DEFAULT NULL,*

*`startingpoint` varchar(255) DEFAULT NULL,*

*`time` varchar(255) DEFAULT NULL,*

*PRIMARY KEY (`schedule\_id`)*

*) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4\_0900\_ai\_ci;*

***API End Points:   
  
User:***

*Post:* [*http://localhost:9001/user/registration*](http://localhost:9001/user/registration) *Post:* [*http://localhost:9001/user/login*](http://localhost:9001/user/login) *(Extra Endpoint for Login)*

*Get:* [*http://localhost:9001/user/get/{userID}*](http://localhost:9001/user/get/%7buserID%7d)

*Get:* [*http://localhost:9001/user/listAll*](http://localhost:9001/user/listAll) *Put:* [*http://localhost:9001/user/update*](http://localhost:9001/user/update) *Delete:* [*http://localhost:9001/user/delete{userID}*](http://localhost:9001/user/delete%7buserID%7d)

***Booking:***

*Post:* [*http://localhost:9001/booking/registration*](http://localhost:9001/booking/registration)

*Get:* [*http://localhost:9001/booking/get/{bookingID}*](http://localhost:9001/booking/get/%7bbookingID%7d)

*Get:* [*http://localhost:9001/booking/listAll*](http://localhost:9001/booking/listAll) *Put:* [*http://localhost:9001/booking/update*](http://localhost:9001/booking/update) *Delete:* [*http://localhost:9001/booking/delete/{bookingID}*](http://localhost:9001/booking/delete/%7bbookingID%7d)***Location:***

*Post:* [*http://localhost:9001/location/registration*](http://localhost:9001/location/registration)

*Get:* [*http://localhost:9001/location/get/{locID}*](http://localhost:9001/location/get/%7blocID%7d)

*Get:* [*http://localhost:9001/location/listAll*](http://localhost:9001/location/listAll) *Put:* [*http://localhost:9001/location/update*](http://localhost:9001/location/update) *Delete:* [*http://localhost:9001/location/delete/{locID}*](http://localhost:9001/location/delete/%7blocID%7d)

***Bus:***

*Post:* [*http://localhost:9001/bus/registration*](http://localhost:9001/bus/registration)

*Get:* [*http://localhost:9001/bus/get/{busID}*](http://localhost:9001/bus/get/%7bbusID%7d)

*Get:* [*http://localhost:9001/bus/listAll*](http://localhost:9001/bus/listAll) *Put:* [*http://localhost:9001/bus/update*](http://localhost:9001/bus/update) *Delete:* [*http://localhost:9001/bus/delete/busID}*](http://localhost:9001/bus/delete/busID%7d)***Schedule:***

*Post:* [*http://localhost:9001/schedule/registration*](http://localhost:9001/schedule/registration)

*Get:* [*http://localhost:9001/schedule/get/{schID}*](http://localhost:9001/schedule/get/%7bschID%7d)

*Get:* [*http://localhost:9001/schedule/listAll*](http://localhost:9001/schedule/listAll) *Put:* [*http://localhost:9001/schedule/update*](http://localhost:9001/schedule/update) *Delete:* [*http://localhost:9001/schedule/delete/{schID}*](http://localhost:9001/schedule/delete/%7bschID%7d) *Get:* [*http://localhost:9001/schedule/get/{startingpoint}/{destination}/{date*](http://localhost:9001/schedule/get/%7bstartingpoint%7d/%7bdestination%7d/%7bdate)*}*

*(Extra Method to allow a user to find a Schedule)*

***Rough Estimation of Required Components in Frontend:  
  
Components:****Admin home  
Admin navbar  
Booking (Admin Approval – Changing Payment Status)  
Bus  
Location  
Manage user  
Schedule  
User home  
User login  
Registration  
Find Schedule   
Booking – (User side actual Booking)****Service:****User service  
Bus Service  
Location Service*

*Schedule Service  
Booking Service****Entity/Model Class:*** *User  
Bus   
Bus Location (Note: Location is already an inbuilt service so appending Bus to it)  
Bus Schedule (Note: Appending Bus to Schedule to avoid clashes with inbuilt methods)  
Booking Service*