Service contract for Taxi Tap

**User Service Contract**

1. createUser
   1. Request:

**{**

**name: string,**

**phoneNumber: string,**

**password: string**

**}**

* 1. Response

**{**

**userID: string,**

**createdAt: timestamp**

**}**

* 1. Effect
     1. Saves a new user to the database and returns the generated user ID and creation timestamp.

1. LoginUser
   1. Request:

**{**

**phoneNumber: string,**

**password: string**

**}**

* 1. Response

**{**

**token: string,**

**userId: string**

**}**

* 1. Effect
     1. Authenticates the user and provides a session token.

**Ride Booking Service Contract**

1. ViewAvailableTaxis
   1. Request

**{**

**userLocation: { latitude: float, longitude: float }**

**}**

* 1. Response

**[{**

**taxiId: string,**

**driverName: string,**

**availableSeats: int,**

**route: string,**

**location: { latitude: float, longitude: float }**

**}]**

* 1. Effect
     1. Returns a list of nearby taxis with route, price and seat information.

1. bookSeat
   1. Request

**{**

**userId: string,**

**taxiId: string,**

**pickupLocation: { latitude: float, longitude: float },**

**destination: string**

**}**

* 1. Response

**{**

**bookingId: string,**

**status: confirmed,**

**estimatedArrivalTime: timestamp**

**price: double**

**}**

* 1. Effect
     1. Reserves a seat in the taxi and returns confirmation.

1. trackTaxi
   1. Request

**{**

**bookingId: string**

**}**

* 1. Response

**{**

**taxiLocation: { latitude: float, longitude: float },**

**estimatedArrivalTime: timestamp**

**}**

* 1. Displays live taxi location and ETA.

**Ride Receiving Service Contract**

1. UpdateTaxiLocation
   1. Request

**{**

**driverId: string,**

**location: { latitude: float, longitude: float }**

**}**

* 1. Response

**{**

**status: updated**

**}**

* 1. Effect
     1. i. Updates the taxi's real-time location in the system.

1. AcceptBooking
   1. Request

**{**

**driverId: string,**

**bookingId: string**

**}**

* 1. Response

**{**

**status: accepted**

**}**

* 1. Effect
     1. Confirms the driver’s acceptance of a user’s booking.

1. CompleteRide
   1. Request

**{**

**bookingId: string**

**}**

* 1. Response

**{  
 status: completed,  
 fare: double  
}**

* 1. Effect
     1. Marks the ride as completed.

**Notification Service Contract**

1. sendNotification
   1. Request

**{**

**userId: string,**

**type: string, e.g., rideStatus**

**message: string**

**}**

* 1. Response

**{**

**status: sent,**

**timestamp: timestamp**

**}**

* 1. Effect
     1. Sends notification to the user.