

Class Diagram Documentation: Morocco InDrive

Classes:

User (MyUser): Represents the general users of the system, including both riders and administrators. It contains attributes such as `id`, `fullName`, `email`, `mobile`, and `role`.

Driver: Represents the drivers in the system who handle ride requests and provide transportation services to users. The `Driver` class contains attributes specific to their operations, such as `location`, `rating`, and `revenue`, in addition to general user-related attributes.

Ride: Represents the transportation service provided by the system, connecting users and drivers. It contains details about the ride's status, locations, and fare.

Vehicle: Represents the vehicle operated by a driver. It contains details about the vehicle's make, capacity, and registration.

License: Represents the driver's legal license to operate a vehicle. It contains details about the license's validity and identification.

RefreshToken: Represents a token used for refreshing the authentication session. It is specific to either a `MyUser` or a `Driver`.

Payment: Represents the payment details for a ride, including the amount, status, and method. This class manages the financial aspect of a ride.

Associations:

Ride to User:

- **Type:** Association (one-to-many)
- **Description:** A `Ride` is associated with a `User`. Users request rides, and this relationship establishes their participation in the system. A single user can have multiple rides in the system.

Ride to Driver:

- **Type:** Association (one-to-many)
- **Description:** A `Ride` is also associated with a `Driver`. Drivers handle the ride requests, and this relationship represents their involvement in the ride lifecycle.

Driver to Vehicle:

- **Type:** Association (one-to-one)

- **Description:** A `Driver` is assigned a specific `Vehicle` for completing rides. The relationship ensures that each driver operates only one vehicle at a time.

Driver to License:

- **Type:** Association (one-to-one)
- **Description:** Each driver possesses one valid `License`. This relationship ties a driver's credentials to the system.

Ride to Payment:

- **Type:** Association (one-to-one)
- **Description:** Each `Ride` generates a `Payment` object to track the payment details. This relationship ensures that payment data is linked to a specific ride.

User/Driver to RefreshToken:

- **Type:** Association (one-to-one)
- **Description:** Both `User` and `Driver`, each of them maintain a `RefreshToken` for session management and authentication.