

Modals

@Entity

```
public class Car {  
    @Id @GeneratedValue private Long id;  
    private String model;  
    private String status; // IDEAL / ON_LEASE / ON_SERVICE  
    @ManyToOne private Owner owner;  
}
```

@Entity

```
public class Owner {  
    @Id @GeneratedValue private Long id;  
    private String name;  
    private String email;  
    // one owner can own multiple cars  
    @OneToMany(mappedBy = "owner") private List<Car> cars;  
}
```

@Entity

```
public class Customer {  
    @Id @GeneratedValue private Long id;  
    private String name;  
    private String email;  
}
```

@Entity

```
public class Lease {  
    @Id @GeneratedValue private Long id;  
    @ManyToOne private Customer customer;  
    @ManyToOne private Car car;
```

```
private LocalDate startDate;  
private LocalDate endDate;  
}
```

```
public interface CarRepository extends JpaRepository<Car, Long> {}  
public interface OwnerRepository extends JpaRepository<Owner, Long> {}  
public interface CustomerRepository extends JpaRepository<Customer, Long> {}  
public interface LeaseRepository extends JpaRepository<Lease, Long> {}
```

Services

Registering a car

Leasing a car (limit to 2 leases per customer)

Ending a lease

Viewing histories

Controllers (API Endpoints)

@RestController

@RequestMapping("/api/car")

```
public class CarController {  
    @Autowired private CarService carService;  
  
    @PostMapping("/register")  
    public ResponseEntity<Car> registerCar(@RequestBody CarDTO carDto) {  
        return ResponseEntity.ok(carService.registerCar(carDto));  
    }  
}
```

In-Memory DB

In application.properties

spring.h2.console.enabled=true

spring.datasource.url=jdbc:h2:mem:trimblecarsdb

spring.jpa.show-sql=true

spring.jpa.hibernate.ddl-auto=update