

# Parking Garage Application

This is a web application which implements the parking solution for a multi storey building.

Technology used in implementation is Angular 16 and bootstrap 5 for styling.

The application is implemented in a perspective that it is to be managed by parking garage staff.

Application pages implemented:

## 1. Parking Registration

This is the page where the customer vehicle can be registered for parking, once the below inputs are provided. This page also provides a warning and the form will be disabled when the parking is full.

User Inputs are mentioned as below:

- Vehicle Registration Number
  - This is the registration number of the vehicle, which needs to be unique. You cannot register the vehicle twice unless the vehicle has not been checked out.
- Parking Slot Type
  - This is the slot type where the vehicle needs to be parked. This is a select dropdown having the following options which is stored as an array in a typescript file.:
    - Compact
    - Large
    - Motorcycle
    - Handicapped
- Floor
  - Here, we can select the floor where the vehicle can be parked. This is a select drop down, which is displayed based on the availability of the selected parking slot type. This is a static list which is stored as an array in a typescript file.
- Check-In Date
  - Date in which the vehicle is registered for parking. The input is DateTime.

**Screenshot**

## Register Parking

Vehicle Registration Number:

Parking Slot Type:

Floor:

Check-In Date:

dd/mm/yyyy, --:-- --



Sorry, All parking slots are full. Currently no parking slots are available!!.

## Register Parking

Vehicle Registration Number:

Parking Slot Type:

Floor:

Check-In Date:

dd/mm/yyyy, --:-- --

## 2. Display Board

This page displays the parking slot availability details against each floor. This provides the total available slots, used slots and remaining slots. Also, provides a warning when the parking is full.

Users have an option to see the parking details against each floor as well all the floors.

### Screenshot:

DNB Parking GarageRegistrationDisplay BoardsCheckoutEarnings & Transactions

Parking slot details

Select Floor:Show All

Floor : floor 1

Name	Total Available	Used	Remaining
Compact	3	0	3
Large	3	0	3
Motorcycle	5	0	5
Handicapped	2	1	1

Floor : floor 2

Name	Total Available	Used	Remaining
Compact	3	0	3
Large	3	0	3
Motorcycle	5	0	5
Handicapped	2	0	2

Floor : floor 3

Name	Total Available	Used	Remaining
Compact	3	0	3
Large	3	0	3
Motorcycle	5	0	5
Handicapped	2	0	2

Floor : floor 4

Name	Total Available	Used	Remaining
Compact	5	0	5
Large	5	0	5
Motorcycle	5	0	5

### 3. Check Out Parking

The vehicle can be checked out from the parking in this screen. It accepts the vehicle registration number and then displays the check in time. The user needs to provide the checkout time and the parking fee will be calculated based on the difference between the checkin and the checkout time.

Once the user confirms checkout, the vehicle details will be removed from the registration list and a transaction will be stored against the checkout date.

#### Screenshot

DNB Parking Garage

Registration

Display Boards

Checkout

Earnings & Transactions

Checkout Parking

Vehicle Registration Number

abc123

Find Vehicle

You checked in on

18-01-2024 11:36

Check-Out Date

18/01/2024, 09:29 PM

Calculate Price

Payment Details

Registration Number	abc123
Checkin Date	18-01-2024 11:36
Checkout Date	18-01-2024 21:29
Total hours	10 Hours
Total Price	NOK180.00
Checkout	Checkout

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4. Earnings and Transaction

This page displays the transactions against the provided date and the total earnings for that particular date. If there are no transactions available on the selected date, there will be an info message displayed indicating that there is no transaction available for the selected date.

Screenshot

DNB Parking Garage

Registration

Display Boards

Checkout

Earnings & Transactions

Earnings and Transactions

Transaction Date

18/01/2024

Load Transactions

Vehicle Registration Number	Check in Date	Check out Date	Payment Amount
RESH 1402	18-01-2024	18-01-2024	NOK80.00
RESH 1402	18-01-2024	18-01-2024	NOK110.00
abc123	18-01-2024	18-01-2024	NOK180.00
Total Earnings			NOK370.00

DNB Parking Garage

Earnings and Transactions

Transaction Date

19/01/2024

Load Transactions

No transaction found on the selected date