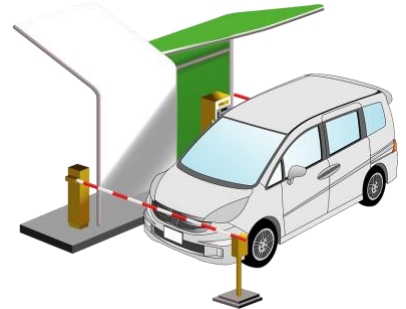


# Exercise 1- Parking Lot

## The scenario:

- Build a cloud-based system to manage a parking lot.
- Camera will recognize license plate and ping cloud service
- Actions:
  - Entry (record time, license plate and parking lot)
  - Exit (return the charge for the time in the parking lot)
- Price – 10\$ per hour (by 15 minutes)



## Endpoints:

You need to implement two HTTP endpoints:

- POST /entry?**plate**=123-123-123&**parkingLot**=382
  - Returns ticket id
- POST /exit?**ticketId**=1234
  - Returns the license plate, total parked time, the parking lot id and the charge (based on 15 minutes increments).

The charge for parking is 10\$ per hour.

## The task:

Build a system that would track and compute cars entry & exit from parking lots, as well as compute their charge. The system should be deployed to AWS in one of two ways:

1. As a serverless solution, covered in Lesson 4.
2. Deployed on an EC2 instance as standard application, covered in Lesson 3.

Notes:

- You may use any technology stack that you'll like (Node.js, Python, C#, JVM, etc).
- Data persistence is left at your discretion, we'll cover persistence in the cloud in Lesson 5.

## Deliverables:

You need to create:

- The code that would handle the above-mentioned endpoints.
- Include a script that would *deploy* the code to the cloud. Can be bash, cloud formation, custom code, etc.
- Push the results to GitHub or similar service and provide a link to the code.
- Inclusion of access keys in the submission will automatically reduce 25% of the grade.