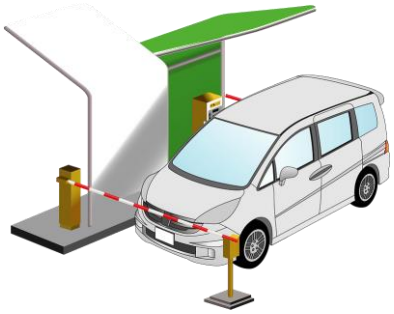
Exercise 1- Parking Lot

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 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:

Submit your work by email to oren.eini@post.idc.ac.il. The email should **not** contain the project itself, but a link to it.

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.
- Upload the results (OneDrive, S3, GitHub, Google Drive, etc) and provide link to the code.
- Inclusion of access keys in the submission will automatically reduce 25% of the grade.