Middle East Technical University | Department of Computer Engineering

CENG 495

Cloud Computing

Spring 2019-2020

Assignment 1

Due date: March 9^{nd}, 23:55

Objectives

To familiarize with the Platform as a Service Systems (PAAS) using several APIs and Heroku which is a cloud platform that supports several programming languages . You will develop and deploy an application monitoring capacity of Ispark Car Parks.

Specifications

- In this homework, you will develop a monitoring application for Ispark car parks and deploy it on Heroku. Heroku provides a free account. Firstly, you need to get a free Heroku account and create a new application to deploy your code. Your application must be accessible from the address **your-app-name.herokuapp.com**. You are free to use any programming languages supported by Heroku (Java, Python, Go, Node.js, etc.). The related links are in *Useful links* section.
- In your application, there will be three elements. First element list the districts (İlçe) of car parks. Second element list the car parks according to the chosen district. In the last element, the free parking spaces of car park and the location of the car park is shown. To get the data about Ispark car parks, you will use **İBB Açık Veri Portalı API**. To locate the car parks on the map, you can use **Open Layers API**. The related links are in *Useful links* section.
- You are free to use any HTML structures, libraries, frameworks to achieve the corresponding tasks. To choose districts and car parks, the user should be able to select districts and car parks by typing or clicking. The number of free and used parking spaces with the location of the car park should be seen clearly on the page.

Useful Links

- ***Heroku*** documentation page.
- For IBB car park data set, use ***Ispark*** data set.
- ***Open Layers*** documentation page.

Submission

- In this assignment, you are expected to both deploy your solution to Heroku and submit all your source code with a README file to Odtuclass. For odtuclass submission, **student-id.tar.gz** file is expected. The README file should include **your-app-name** and simple explanation about other files.
- Late submission policy is as stated in the syllabus, a penalty of "5 x LateDay x LateDay" is applied for the late submission of the assignment for at most three days unless otherwise is stated.
- You can use different languages, libraries or frameworks. However, you cannot make use of any existing code on the Internet. No grouping or cooperation is allowed for the assignment. People involved in cheating will be punished according to the university regulations.