



Middle East Technical University
Department of Computer Engineering

CENG 495
Cloud Computing
Spring 2020-2021 Homework 1

Due Date: 28.04.2021, 23:55

This homework aims to get you familiar with the Platform as a Service (PaaS) systems. Google App Engine is the cloud computing platform offered by Google. You are going to develop and deploy an Internet Meme generator using GAE.

Keywords: PaaS, GAE, Cloud Computing, Meme

1. Google App Engine

- Join Google Cloud as a free user. You can use it for three months. If you use your google account only for your work on the course, the limits of a free account will be enough for sure.
- Create and deploy your application on Google App Engine.
- You are free to use any language supported by GAE (Python, Java, Go, PHP etc.).

2. MEME Generator

- Your application will basically create Internet Meme's using an image file and some other inputs of your choice.
- For the image, your application should either support a way to upload a local image file (in jpeg format) or use image from a web address.
- For the other options, your application should use at least two different inputs (i.e. words for top of the image, words for bottom of the image, choice of emoji, color of words, etc.)

- To generate Meme's, you can use external API's or use codes from sources like GitHub. You should clearly define the sources you used for your work. However, the main page that interacts with the user should be your own code.
- Some sample API's or codes:

<https://imgflip.com/api>

<https://memebuild.com/>

<https://mememaker.github.io/API/>

<http://apimeme.com/>

<https://github.com/jacebrowning/memegen>

<https://github.com/voxmedia/meme>

3. Submission

- In this assignment, you are expected to both deploy your solution on GAE and submit your source code to ODTÜClass. For submission on ODTÜClass, a tar.gz archive file (named hw1.tar.gz) that contains all your source code files and a README file that includes the programming language you have chosen, the web address (*.appspot.com) of your work, and user's guide if you think your application is not easy to use.
- The work you submit should be implemented by only you and genuine. However, you can use external libraries for altering the image files. If you do so, you need to state your references for these codes in your README file.
- We have zero tolerance policy for cheating. There is no teaming up! People involved in cheating will be punished according to the university regulations and will get 0. You can discuss design choices or language preferences, but sharing code between each other or submitting third party code as a whole is strictly forbidden. In case a match is found, this will be considered as cheating.

