CCL Assignment No. 1

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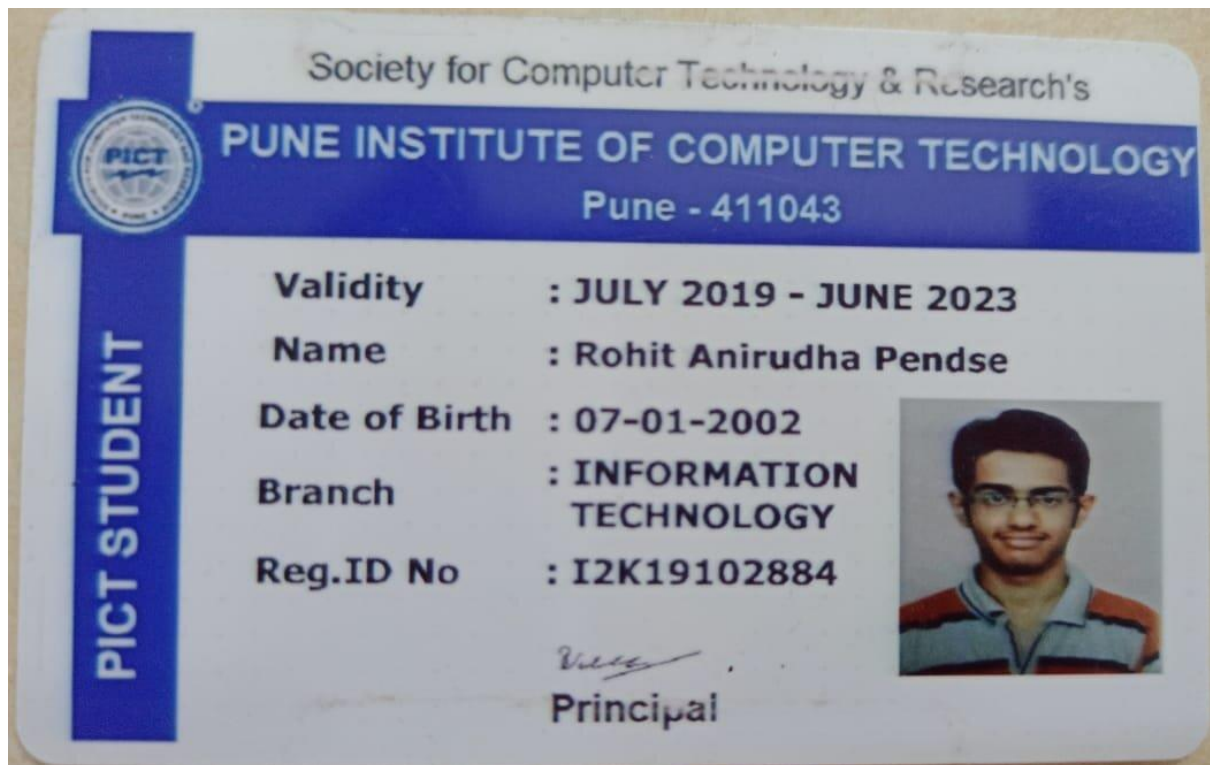
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CCL - Assignment -1

Aim: Install google cloud engine. Create hello world app and other simple web applications using python/Java

Theory:

1. What is Google App Engine?
   → - It is fully managed serverless platform for developing & hosting web applications at scale.
   - We can choose from several popular languages, libraries & frameworks to develop apps & let app engine take the care of provisional servers & scaling app instances based on demand

2. What is use and purpose of GAE?
   → GAE is a cloud computing platform as a service for developing & hosting web applications in google - managed data centres.
   - GAE provides more infrastructure than other scalable hosting services such as Amazon Elastic Compute cloud (EC2)
   - The app engine also ~~provides~~ eliminates some system administration and developmental task to make it easy to write scalable application

3. What is procedure to write simple web applications?
   → Following are steps to develop & write simple web applications:

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1. Download Python 2 or higher version
2. Download cloud SDK installer.
3. Launch installer & follow instructions
4. After installation is complete, installer gives you option to create start menu and Desktop shortcut, start cloud shell & configure Cloud SDK. The installer starts a terminal window, run "gcloud init" command.
5. Default installation doesn't include app engine extensions required to deploy an application. Run following command:
   gcloud components install <component_ID>
6. Create a folder on Desktop. Suppose folder name gcloud_folder_1. Create 2 files in it, 1st python & 2nd yaml.
7. In python file write a hello world program

```
import webapp2
class MainPage (webapp2. request handler):
    def get(self):
        self. response. write ("Hello World");
app = webapp2. WSGI Application ([('/',
MainPage)], delay=True)
```

8. Include following code in yaml file:

```
runtime: python 27
api_version: 1
threadsafe: true
handlers:
- url: /
  script: test.app
```

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9) Open google cloud shell & give following commands:

- google-cloud-sdk\bin\dev_appserver.py <folder_name> (path which contains folder files)

It will show a link on the shell, just paste that link on browser to open dev app.

4) Write a simple hello world code using python.

→
```
import webapp2
class MainPage (webapp2.RequestHandler)
    def get(self):
        self.response.write ("Hello World")
app = webapp2.WSGIApplication([('/', MainPage)
delay = True)
```

Google Cloud SDK Shell - py google-cloud-sdk\bin\dev_appserver.py D:\ROHIT\TE_Assignment_SEM_II\CCL\A1
Welcome to the Google Cloud SDK! Run "gcloud -h" to get the list of available commands.

C:\Users\rapen\AppData\Local\Google\Cloud SDK>gcloud components update
Beginning update. This process may take several minutes.

All components are up to date.

C:\Users\rapen\AppData\Local\Google\Cloud SDK>pip install webapp2
Requirement already satisfied: webapp2 in c:\users\rapen\appdata\local\programs\python\python38-32\lib\site-packages (2.5.2)

C:\Users\rapen\AppData\Local\Google\Cloud SDK>google-cloud-sdk\bin\dev_appserver.py D:\ROHIT\TE_Assignment_SEM_II\CCL\A1

C:\Users\rapen\AppData\Local\Google\Cloud SDK>py google-cloud-sdk\bin\dev_appserver.py D:\ROHIT\TE_Assignment_SEM_II\CCL\A1
INFO   2022-01-17 15:08:11,887 devappserver2.py:239] Using Cloud Datastore Emulator.
We are gradually rolling out the emulator as the default datastore implementation of dev_appserver.
If broken, you can temporarily disable it by --support_datastore_emulator=False
Read the documentation: https://cloud.google.com/appengine/docs/standard/python/tools/migrate-cloud-datastore-emulator
Help us validate that the feature is ready by taking this survey: https://goo.gl/forms/UArIcs8K9CUSCm733
Report issues at: https://issuetracker.google.com/issues/new?component=187272

WARNING 2022-01-17 15:08:11,980 application_configuration.py:210] The "python" runtime specified in "D:\ROHIT\TE_Assignment_SEM_II\CCL
\A1\app.yaml" is not supported - the "python27" runtime will be used instead. A description of the differences between the two can be f
ound here:
https://developers.google.com/appengine/docs/python/python25/diff27
INFO   2022-01-17 15:08:12,002 devappserver2.py:316] Skipping SDK update check.
INFO   2022-01-17 15:08:14,612 datastore_emulator.py:156] Starting Cloud Datastore emulator at: http://localhost:16611
WARNING 2022-01-17 15:08:19,989 simple_search_stub.py:1196] Could not read search indexes from c:\users\rapen\appdata\local\temp\appen
gine.None\search_indexes
INFO   2022-01-17 15:08:24,645 datastore_emulator.py:162] Cloud Datastore emulator responded after 10.033000 seconds
INFO   2022-01-17 15:08:24,657 <string>:383] Starting API server at: http://localhost:61225
INFO   2022-01-17 15:08:24,812 <string>:373] Starting gRPC API server at: http://localhost:61226
INFO   2022-01-17 15:08:25,451 dispatcher.py:281] Starting module "default" running at: http://localhost:8080
INFO   2022-01-17 15:08:25,466 admin_server.py:150] Starting admin server at: http://localhost:8000

Conclusion:
Installed Google App Engine successfully.
Created simple web app using python.