

## DEPLOY SIMPLE JAVA APPLICATION USING GOOGLE APP ENGINE

- **GCP credit application**
- **Create a project** :Go to Google Cloud, Console--create a project
- **Add billing information:** Billing—add your credit—you will not be charged. Billing account for education. Apply credits. \$50
- **Create app engine application:** Compute-- App Engine (If not present, then google app engine, create account and then go to console
  - Create application
  - Enter geographic region- You can create only 1 app engine per project. Choose the nearest google datastore location for minimum charges- US east 1
  - Choose language and environment, App created
  - Activate Cloud Shell - a free online environment, with command-line access for managing your infrastructure and an online code editor
- **Enable App engine API:** API and services--*Enable App Engine Admin API and Google App engine Flexible Environment API.* to build application on app engine. Whatever resource you need, you need to activate that API.
- **Clone sample application from cloud repository:**  
<https://github.com/GoogleCloudPlatform/java-docs-samples>  
this GitHub repository is maintained by google that

comprises starter codes in Java to deploy applications on app engine.

- Clone this repository by *git clone* from cloud shell.
  - *cd app-engine8/hello world*. Navigate to hello world app in app engine. There is a HelloAppEngine.java that implements a simple servlet
  - You can clone your project repository here or package your package as a jar file and upload It here.
  - **Download maven build:** To test and get development server running, we will need maven. *mvn clean ...build success....mvn package..*
  - **Run app engine on localhost:** Download and install maven and run app engine. *mvn appengine:run...* this will install all dependencies needed for the application. Dev App server is now running. Go to Web preview...preview on localhost. On localhost application has been successfully deployed. This is a cloudshell localhost address.
  - **Deploy app to app engine:** Now we need to deploy application to app engine that is hosted by google, so that everyone can see it.
    - Go to *appengine8/helloworld/pom.xml* and change projectID to your projectID fraom google cloud project dashboard.
    - *mvn package appengine:deploy* to deploy .
    - To find where it is deployed....*gcloud app browse*.
  - **Clean up to avoid billing charges:** Project settings=>shut down project
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