HOMEWORK 2
BY
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Part 1:
This is the link to part 1
http://sruthi-moothat-swe-645.s3-website-us-east-1.amazonaws.com/

Part 2:

Create a war file
Run the following command from the application folder to create a war file

```
jar -cvf hw-home.war *
```

Dockerize the application:
1.Installed the Docker application and created a docker file with the following command

```
FROM tomcat:9-jdk8
COPY hw-home.war /usr/local/tomcat/webapps
```

2. Build the docker image by using the following command

```
docker build -t sruthi-moothat-hw2 .
```

3. Command for running the docker image

```
docker run -p 8088:8080 sruthi-moothat-hw2
```

4. Open the application in the chrome

```
localhost:8088/hw-home/survey.html
```

5. Create an account in the docker hub and create a repository in it. Use the following command to push the docker image to the docker hub

```
docker login
```

Enter the username and password of the docker hub

```
docker push sruthimoothat/swe645-hw2
```

6. To test the docker image. Follow the commands

```
docker pull sruthimoothat/swe645-hw2
docker run -p 8088:8080 sruthimoothat/swe645-hw2
```

Open it in `localhost:8088/hw-home/survey.html`

Deploy the containerized application in the Google Kubernetes Engine
1. Created an account in the Google cloud.
2. Followed the instruction in the GKE documentation.
https://cloud.google.com/kubernetes-engine/docs/quickstart

```
gcloud config set project project-id
gcloud config set compute/zone us-east1
gcloud container clusters create swe645 --num-nodes=1
gcloud container clusters get-credentials test-cluster
kubectl create deployment swe645hw2 sruthimoothat/swe645-hw2
kubectl expose deployment swe645hw2 --type LoadBalancer \ --port 80
```

```
--target-port 8080
```
3. The link to the kubernetes
http://35.245.169.158/hw-home/survey.html

Push the application to the Git Hub

1. Created an account and a repository in the Git hub
https://github.com/
2. Go to the application directory in the command line and do the following command. It will push the application to the git hub

```
git init
git commit -m "first commit"
git remote add origin https://github.com/sruthi-gmu/SWE645.git
git add .
git push
git push -u origin master
```

Jenkins

1. Created a Jenkin project
2. Added the Git repository URL
3. Build the cammand