**SWE 645 – Assignment 2**

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**Part1:**

I used one of the W3.CSS Templates to enhance the look and feel of my homepage on Amazon S3. The link to my homepage is

<https://my-645-bucket.s3.amazonaws.com/index.html>

**Part2:**

**Containerize the application**

* I signed up with my existing google account for google cloud platform (**GCP**), <https://cloud.google.com/>

Screenshot 1 - Dashboard of my GCP

A screenshot of a social media post

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* I installed google cloud SDK which is a set of tools for Google Cloud Platform so that I can access the products and services from the command-line
* The commands used to configure gcloud is

*./google-cloud-sdk/bin/gcloud init*

* I created an instance with the following commands:
* *source ~/.bashrc*
* *gcloud beta compute --project "peak-plating-247716" ssh --zone "us-east4-c" "instance 645"*
* *google-cloud-sdk aachalthapa$ curl https://sdk.cloud.google.com | bash*

Screenshot 2 - The instance on my GCP

A screenshot of a cell phone

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* I created a repository in docker hub <https://hub.docker.com/repository/docker/athapa20/valar>
* I used git clone command to clone the project from my github repository to create an image for my application

*git clone* [*https://github.com/athapa20/645p2.git*](https://github.com/athapa20/645p2.git)

*jar -cvf surveyform.war \**

All of my git files are here: <https://github.com/athapa20/645p2>

* The I prepared a dockerfile and build the docker image using following command

*sudo docker build -t athapa20/valar:v1 .*

*sudo docker push athapa20/valar:v1*

**Deploying the containerized application**

Screenshot 3 -Kubernetes cluster on my GCP

**A screenshot of a cell phone

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* Installed kubectl using the steps covered in this website <https://kubernetes.io/docs/tasks/tools/install-kubectl/>
* I used the following commands to containerize my application:

*gcloud container clusters create my-cluster-645 --zone=us-east4-c --num-nodes=2*

*gcloud container clusters get-credentials my-cluster-645 --zone us-east4-c*

*kubectl create deployment deploycluster645 --image=athapa20/valar:v1*

*kubectl get deployments*

*kubectl expose deployment/deploycluster645 --type="LoadBalancer" --port 8080*

*kubectl get svc*

Screenshot 4 -The following was my final output with **35.199.22.86** being the external IP

A screenshot of a cell phone

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I copy pasted the IP with the port number and war file, <http://35.199.22.86:8080/surveyform/>