

## Assignment -4

### Docker And Kubernetes

Assignment Date	21 October 2022
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Maximum Marks	2 Marks

#### Question-1:

##### 1. Pull an image from docker hub and run it in docker Playground

The screenshot shows the Docker Labs 'Using Docker Compose' tutorial page. The page has a blue header with the Docker Labs logo, a search bar, and a 'docker/getting-started' link. The left sidebar contains a table of contents with links to 'Getting Started', 'Our Application', 'Updating our App', 'Sharing our App', 'Persisting our DB', 'Using Bind Mounts', 'Multi-Container Apps', 'Using Docker Compose', 'Image Building Best Practices', and 'What Next?'. The main content area is titled 'Defining the App Service' and includes the text 'And now, we'll start migrating a service at a time into the compose file.' and 'To remember, this was the command we were using to define our app container.' Below this is a code block with the following command:

```
docker run -dp 3000:3000 \
  -w /app -v "${PWD}:/app" \
  --network todo-app \
  -e MYSQL_HOST=mysql \
  -e MYSQL_USER=root \
  -e MYSQL_PASSWORD=secret \
  -e MYSQL_DB=todos \
  node:12-alpine \
  sh -c "yarn install && yarn run dev"
```

Below the code block is the text 'If you are using PowerShell then use this command.' and another code block with the following command:

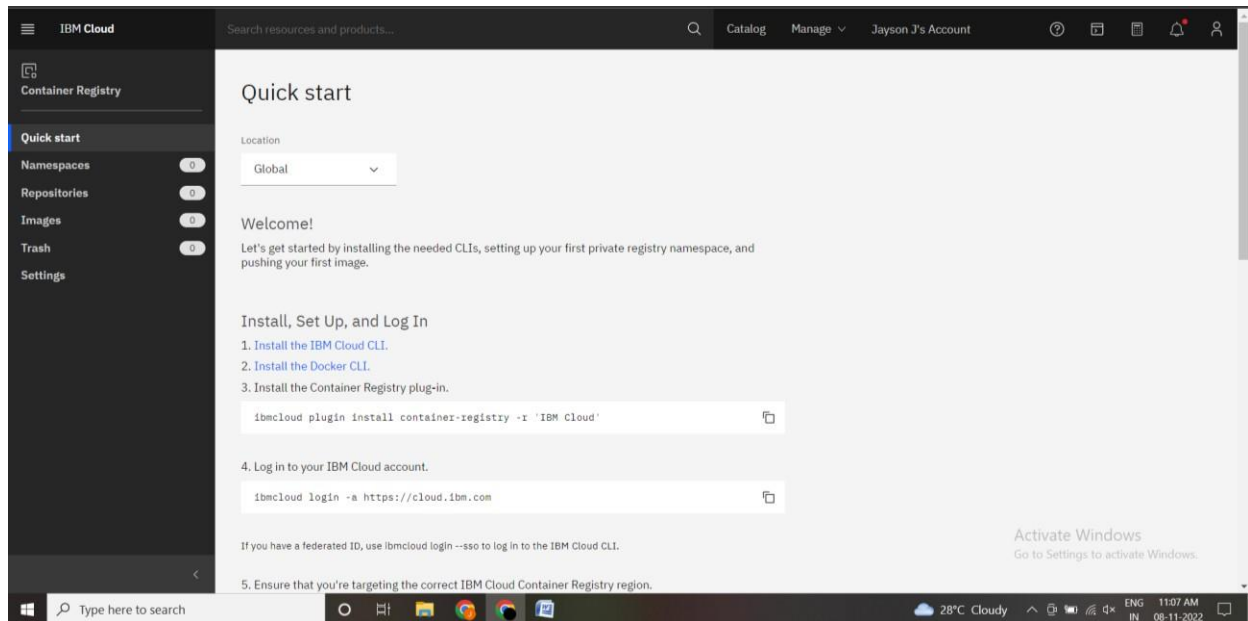
```
docker run -dp 3000:3000 ^
  -w /app -v "${PWD}:/app" ^
  --network todo-app ^
  -e MYSQL_HOST=mysql ^
  -e MYSQL_USER=root ^
  -e MYSQL_PASSWORD=secret ^
  -e MYSQL_DB=todos ^
```

The right sidebar contains a 'Table of contents' section with links to 'Installing Docker Compose', 'Creating our Compose File', 'Defining the App Service', 'Defining the MySQL Service', 'Running our Application Stack', 'Seeing our App Stack in Docker Dashboard', 'Tearing it All Down', and 'Recap'.

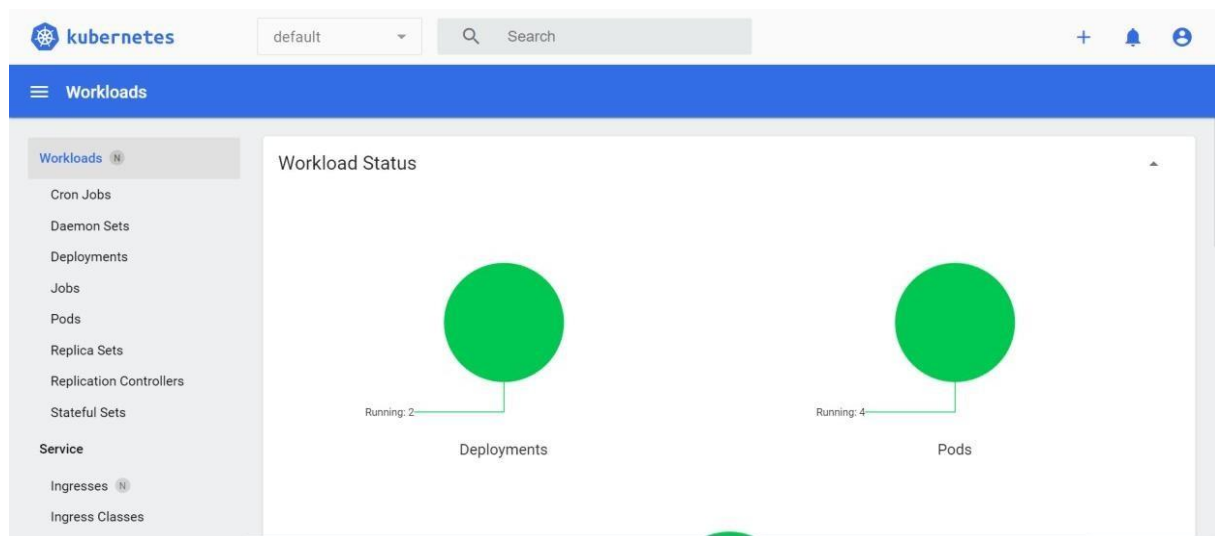
**2.Create a docker file for the Hello world application and deploy it in Docker desktop application.**

```
FROM python:3.8-alpine
LABEL maintainer="Kunal Malhotra, kunal.malhotra1@ibm.com"
RUN mkdir /app
WORKDIR /app
COPY . /app
RUN pip install -r requirements.txt
EXPOSE 5000
ENTRYPOINT [ "python" ]
CMD [ "app.py" ]
```

### 3. Create a IBM container registry and deploy helloworld app.



4. Create a Kubernetes cluster in IBM cloud and deploy helloworld image or also expose the same app to run in nodeport.



This is rathinavel from kubernates