

# Deployment of App in IBM Cloud

## Containerize the App (Docker Image Creation)

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Team ID	PNT2022TMID42917
Project Name	Customer Care Registry
Team Members	Arrush N,Kanishkar R,Poojashree R,Pradap V

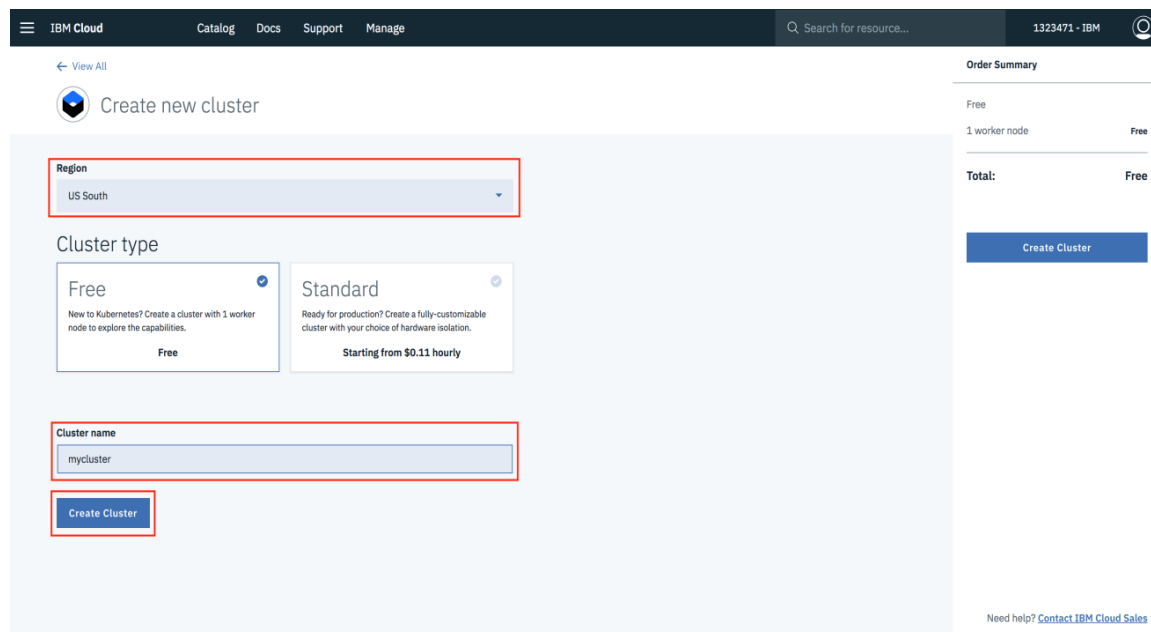
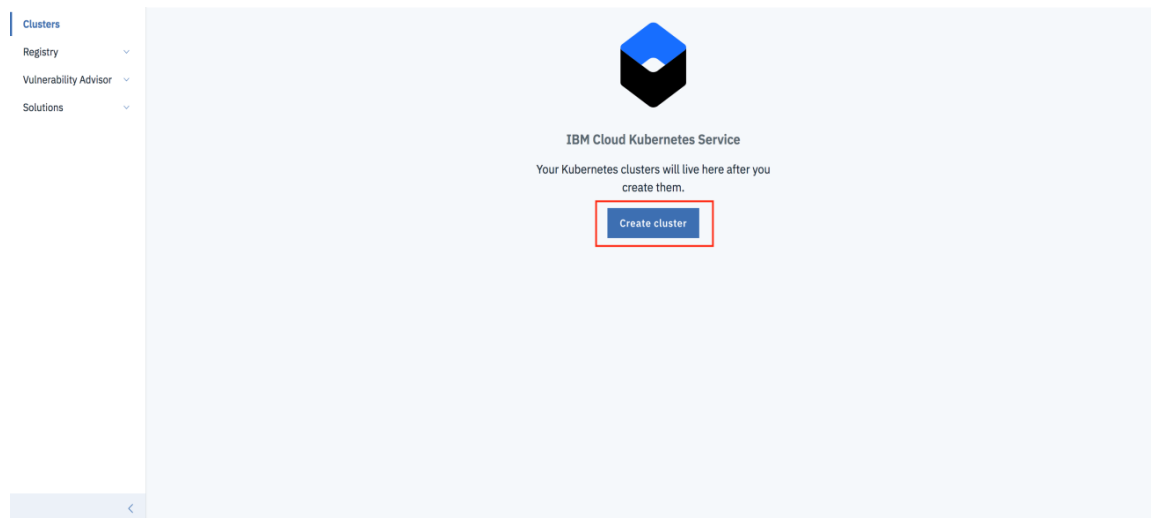
### Step 1 :

Sign in to your [IBM Cloud Dashboard](#) And Open **IBM Kubernetes Service**.

The screenshot shows the IBM Cloud dashboard interface. On the left, a dark sidebar contains navigation links: 'Kubernetes', 'Clusters', 'Reservations' (highlighted with a blue bar), 'Helm catalog', and 'Container Registry'. The main content area has a header with a search bar and user information. Below the header, a section titled 'Save on your cluster costs by creating a reservation' explains that reservations are billing discounts. A blue 'Request access' button is present. Further down, a 'Pricing' section includes a 'Customize cluster details' form with dropdowns for 'Infrastructure' (set to 'Classic') and 'Reservation' (set to 'None'), and input fields for 'Worker nodes' (3) and 'Zones' (3). To the right, a 'Calculated cost' box displays '\$1,905.12 per month estimated'.

### Step 2 :

Create the **Cluster**. Give the Region and cluster type are need to create cluster.



### Step 3 :

After creating the cluster Click the Work Node to Note the pubic Id.

IBM Cloud Catalog Docs Support Manage Search for resource... 1386681 - IBM

Clusters / cluster\_kunal

cluster\_kunal Expires in a month Normal

Kubernetes Dashboard

Access Overview **Worker Nodes** Worker Pools Services

Worker Nodes

Search Add Nodes

	Name	Status	Worker Pool	Zone	Private IP	Public IP	Kubernetes Version
>	w1	Normal	default	hou02	10.47.79.201	184.172.233.151	1.9.8_1517

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## Step 4 :

Next Create a Docker file in Flask App and Type a Following Code within it

```
FROM python:2.7
LABEL maintainer="Kunal Malhotra, kunal.malhotra1@ibm.com"
RUN apt-get update
RUN mkdir /app
WORKDIR /app
COPY . /app
RUN pip install -r requirements.txt
EXPOSE 5000
ENTRYPOINT [ "python" ]
CMD [ "app.py" ]
```

## Step 5 :

Open the terminal and type this command to build an image from your Dockerfile: `docker build -t <image_name>:<tag> .`

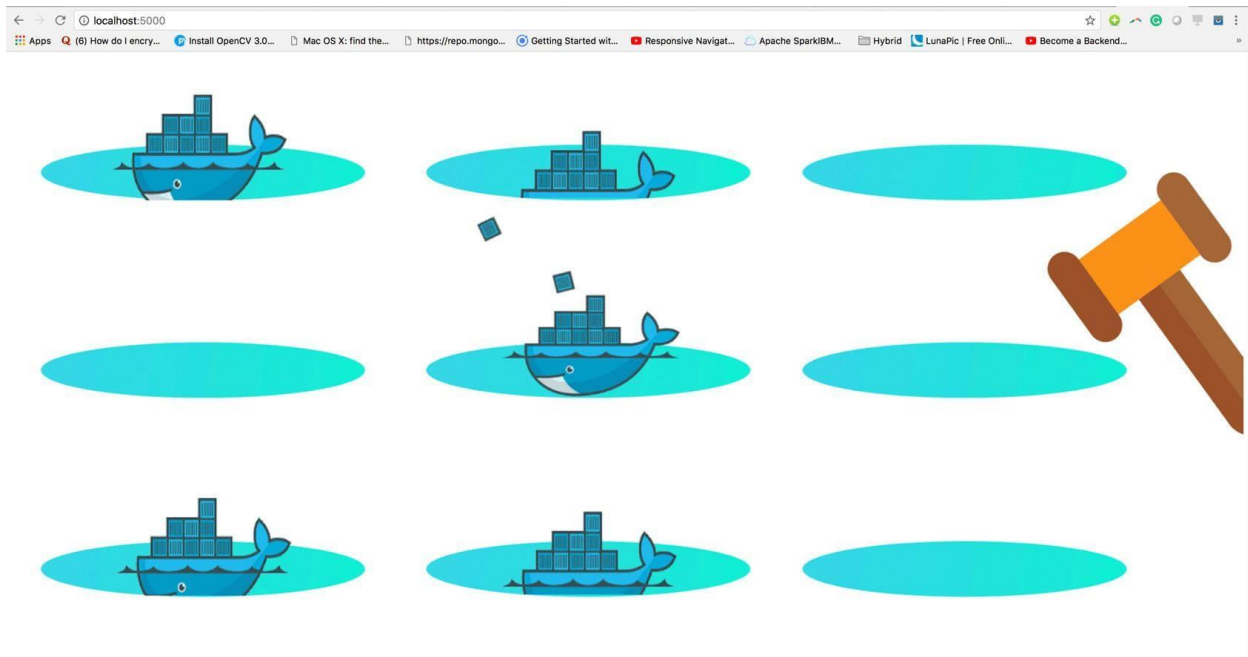
```

kunal@mbp:~$ docker build -t app:latest .
Sending build context to Docker daemon  348.2kB
Step 1/8 : FROM python:2.7
----> 6c76e39e7cfe
Step 2/8 : LABEL maintainer="Kunal Malhotra, kunal.malhotra1@ibm.com"
----> Using cache
----> d8b57d41591c
Step 3/8 : RUN apt-get update
----> Using cache
----> 6262a134e40e
Step 4/8 : COPY ./app
----> f07f7378b99f
Step 5/8 : WORKDIR /app
Removing intermediate container f9010b99d2fe
----> 0bcc6af20e3d
Step 6/8 : RUN pip install -r requirements.txt
----> Running in 8153040b00b7
Collecting click==6.7 (from -r requirements.txt (line 1))
  Downloading https://files.pythonhosted.org/packages/34/c1/8806f99713ddb993c5366c362b2f908f18269f8d792aff1abfd700775a77/click-6.7-py2.py3-none-any.whl (71kB)
Collecting Flask==1.0.2 (from -r requirements.txt (line 2))
  Downloading https://files.pythonhosted.org/packages/7f/af/08578774ed4536d3242b14dcb4696386634607af824ed997202cd0edb4b/Flask-1.0.2-py2.py3-none-any.whl (91kB)
Collecting itsdangerous==0.24 (from -r requirements.txt (line 3))
  Downloading https://files.pythonhosted.org/packages/dc/b4/a60bcbda945c00f6d608d8975131ab3f25b22f2bcef1dab221165194b2d4/itsdangerous-0.24.tar.gz (46kB)
Collecting Jinja2==2.10 (from -r requirements.txt (line 4))
  Downloading https://files.pythonhosted.org/packages/7f/ff/ae64bacdfc95f27a016a7bed8e8686763ba4d277a78ca76f32659220a731/Jinja2-2.10-py2.py3-none-any.whl (126kB)
Collecting MarkupSafe==1.0 (from -r requirements.txt (line 5))
  Downloading https://files.pythonhosted.org/packages/4d/de/32d741db316d8fdb7680822dd37001ef7a448255de9699ab4bfcdbf4172b/MarkupSafe-1.0.tar.gz
Collecting Werkzeug==0.14.1 (from -r requirements.txt (line 6))
  Downloading https://files.pythonhosted.org/packages/20/c4/12e3e56473e52375aa29c4764e78d1b8f3efa6682bef8d0aae04fe335243/Werkzeug-0.14.1-py2.py3-none-any.whl (322kB)
Building wheels for collected packages: itsdangerous, MarkupSafe
  Running setup.py bdist_wheel for itsdangerous: started
  Running setup.py bdist_wheel for itsdangerous: finished with status 'done'
  Stored in directory: /root/.cache/pip/wheels/2c/4a/61/5599631c1554768c6290b08c02c72d7317910374ca082ff1e5
  Running setup.py bdist_wheel for MarkupSafe: started
  Running setup.py bdist_wheel for MarkupSafe: finished with status 'done'
  Stored in directory: /root/.cache/pip/wheels/33/56/20/ebef49a5c612fffe1c5a632146b16596f9e6467676861e4e46
Successfully built itsdangerous MarkupSafe
Installing collected packages: click, itsdangerous, MarkupSafe, Jinja2, Werkzeug, Flask
Successfully installed Flask-1.0.2 Jinja2-2.10 MarkupSafe-1.0 Werkzeug-0.14.1 click-6.7 itsdangerous-0.24
Removing intermediate container 8153040b00b7
----> 66d2636a97bc
Step 7/8 : ENTRYPOINT [ "python" ]
----> Running in bdc1c83815e1
Removing intermediate container bdc1c83815e1
----> 73cefc38a1c
Step 8/8 : CMD [ "app.py" ]
----> Running in a784d430dd6f
Removing intermediate container a784d430dd6f
----> d86bb83763a5
Successfully built d86bb83763a5
Successfully tagged app:latest
kunal@mbp:~$

```

## Step 6 :

After you build your image succesfully, type: `docker run -d -p 5000:5000 app`.



## Step 7 :

Docker Image Created Successfully.