

PERSONAL EXPENSE TRACKER-CLOUD APPLICATION
DEVELOPMENT

Assignment 4

1. Pull an Image from docker hub and run it in docker playground.

The screenshot displays the Docker Playground interface in a web browser. The top navigation bar shows the user is signed in as 1915052. The main interface is divided into two sections: a left sidebar and a right main area.

Left Sidebar:

- Top: A large digital clock showing 04:02:27 and a "CLOSE SESSION" button.
- Below: "Instances" section with a wrench and gear icon, and a "+ ADD NEW INSTANCE" button.
- Bottom: A list of instances showing "192.168.0.18 node1".

Right Main Area:

The title bar for the instance is "cdosn6m3_cdosneu3tccg00aokbv0".

Instance Details:

- IP: 192.168.0.18 (with an "OPEN PORT" button)
- Memory: 1.18% (47.13MiB / 3.906GiB)
- CPU: 24.02%
- SSH: ssh ip172-18-0-43-cdosn6m3tccg00aokbug@direct.labs.pla (with a copy icon)
- Buttons: "DELETE" and "EDITOR"

Terminal Output:

```
#####  
# WARNING!!!! #  
# This is a sandbox environment. Using personal credentials #  
# is HIGHLY! discouraged. Any consequences of doing so are #  
# completely the user's responsibilities. #  
# The PWD team. #  
#####  
[node1] (local) root@192.168.0.18 ~  
$ docker pull hello-world  
Using default tag: latest  
latest: Pulling from library/hello-world  
2db29710123e: Pull complete  
Digest: sha256:faa03e786c97f07ef34423fccceec239ec8a5759259f94d99078f264e9d7af  
Status: Downloaded newer image for hello-world:latest  
docker.io/library/hello-world:latest  
[node1] (local) root@192.168.0.18 ~  
$
```

The second screenshot shows the same interface at a later time, with the clock at 04:01:13. The instance details are updated:

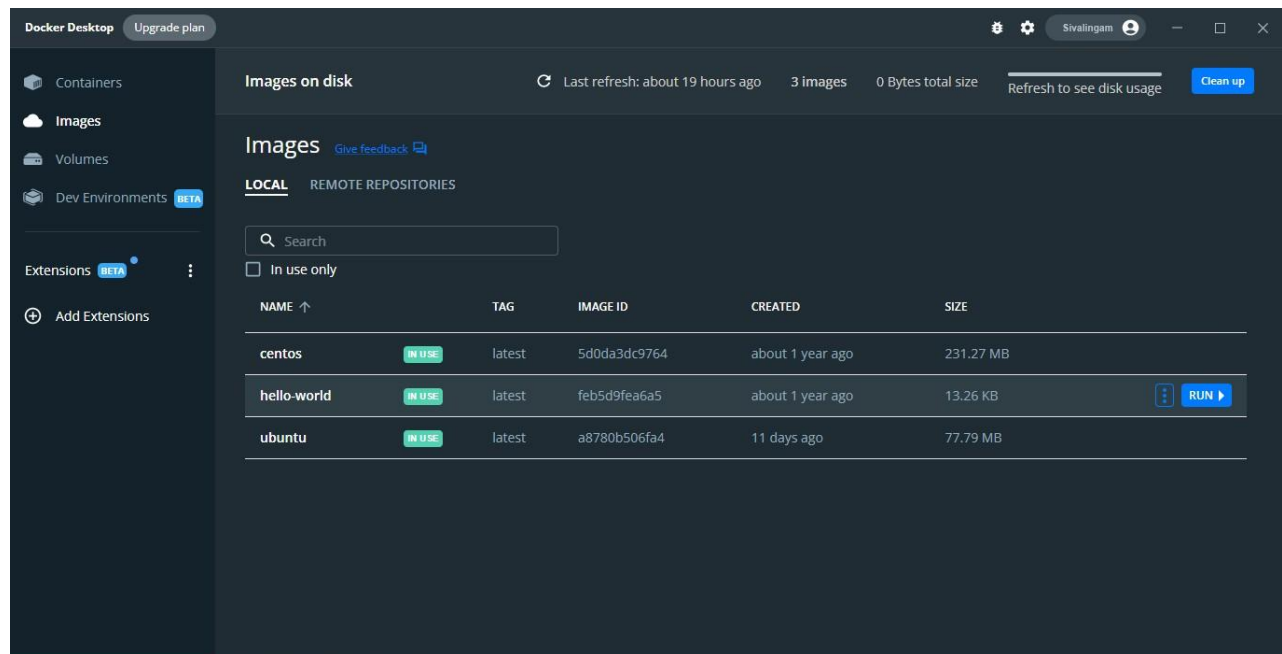
- Memory: 1.25% (49.89MiB / 3.906GiB)
- CPU: 0.53%

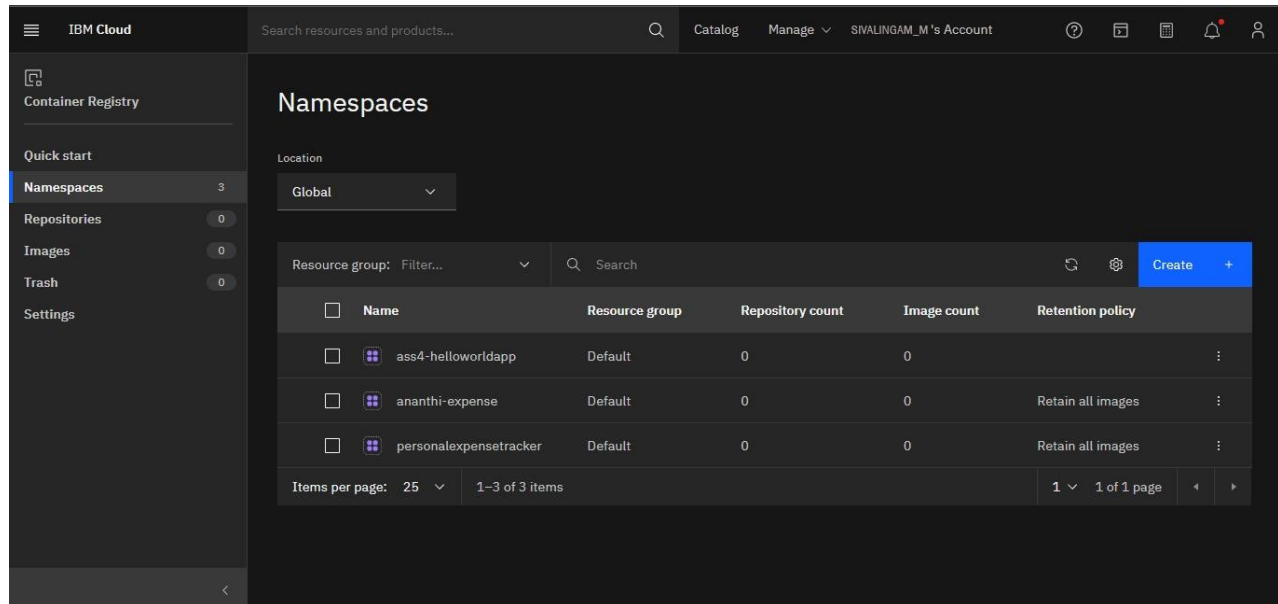
Terminal Output:

```
[node1] (local) root@192.168.0.18 ~  
$ docker run hello-world  
  
Hello from Docker!  
This message shows that your installation appears to be working correctly.  
  
To generate this message, Docker took the following steps:  
1. The Docker client contacted the Docker daemon.  
2. The Docker daemon pulled the "hello-world" image from the Docker Hub.  
   (amd64)  
3. The Docker daemon created a new container from that image which runs the  
   executable that produces the output you are currently reading.  
4. The Docker daemon streamed that output to the Docker client, which sent it  
   to your terminal.  
  
To try something more ambitious, you can run an Ubuntu container with:  
$ docker run -it ubuntu bash
```

2. Create a docker file for the jobportal application and deploy it in Docker desktop application.

```
FROM python:3.7
COPY ./app
WORKDIR /app
COPY requirements.txt /app
RUN python -m pip install -r requirements.txt
EXPOSE 5001
ENTRYPOINT [ "python" ]
CMD [ "app.py" ]
```

**3. Create a IBM container registry and deploy helloworld app or jobportalapp.**



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