

ASSIGNMENT 4

Team ID : PNT2022TMID04440

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

```
Command Prompt - docker run --name app -it nginx bash
Microsoft Windows [Version 10.0.22000.1219]
(c) Microsoft Corporation. All rights reserved.

C:\Users\HP>docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
docker/getting-started latest             cb90f98fd791       7 months ago       28.8MB

C:\Users\HP>docker pull nginx
Using default tag: latest
latest: Pulling from library/nginx
e999532b091: Pull complete
71689475aec2: Pull complete
f88a23025338: Pull complete
b0f4a8342e26: Pull complete
eef26eb3389: Pull complete
8c3ed0a9e43a: Pull complete
Digest: sha256:943c25b4b66b332184d9ba6bb18234273551593016c0e0ae906bab111548239f
Status: Downloaded newer image for nginx:latest
docker.io/library/nginx:latest

C:\Users\HP>docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
nginx                latest             76c69feac34e       2 weeks ago        142MB
docker/getting-started latest             cb90f98fd791       7 months ago       28.8MB

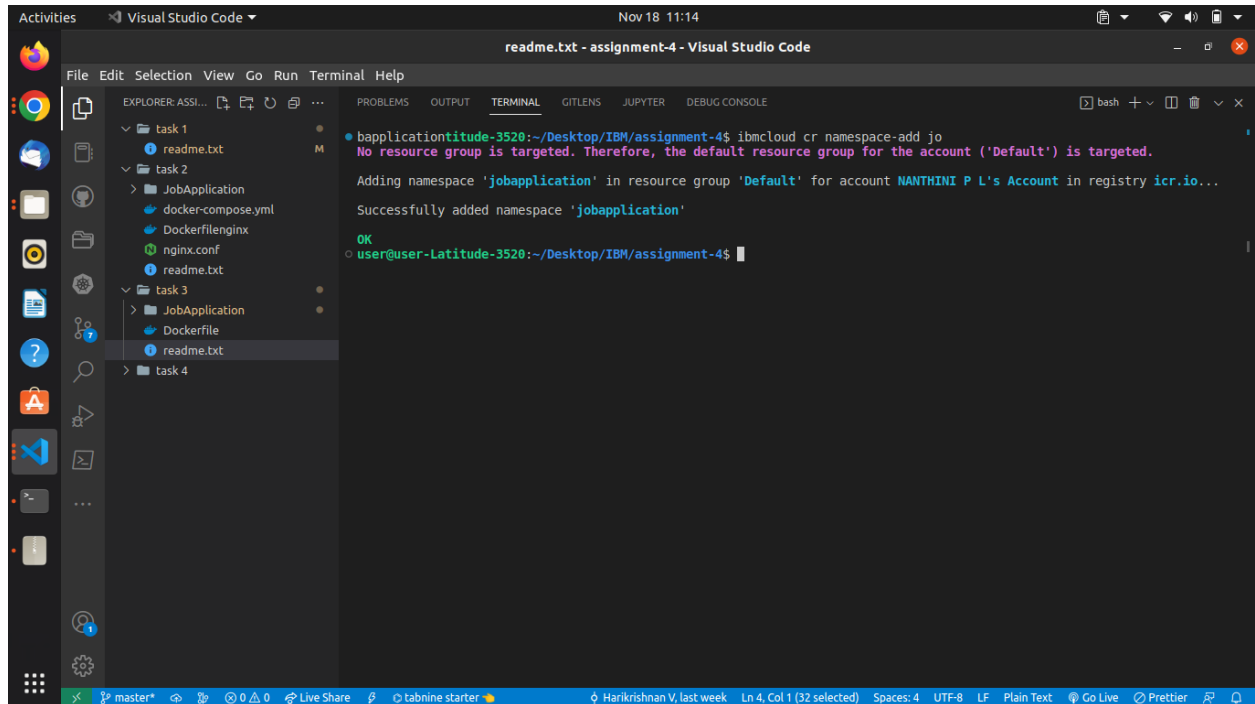
C:\Users\HP>docker run --name app -it nginx bash
root@fb00051684e7:/#
```

```
Command Prompt
Microsoft Windows [Version 10.0.22000.1219]
(c) Microsoft Corporation. All rights reserved.

C:\Users\HP>docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED    STATUS    PORTS    NAMES
fb00051684e7  nginx    "/docker-entrypoint..." 2 minutes ago Up 2 minutes 80/tcp    app

C:\Users\HP>
```

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



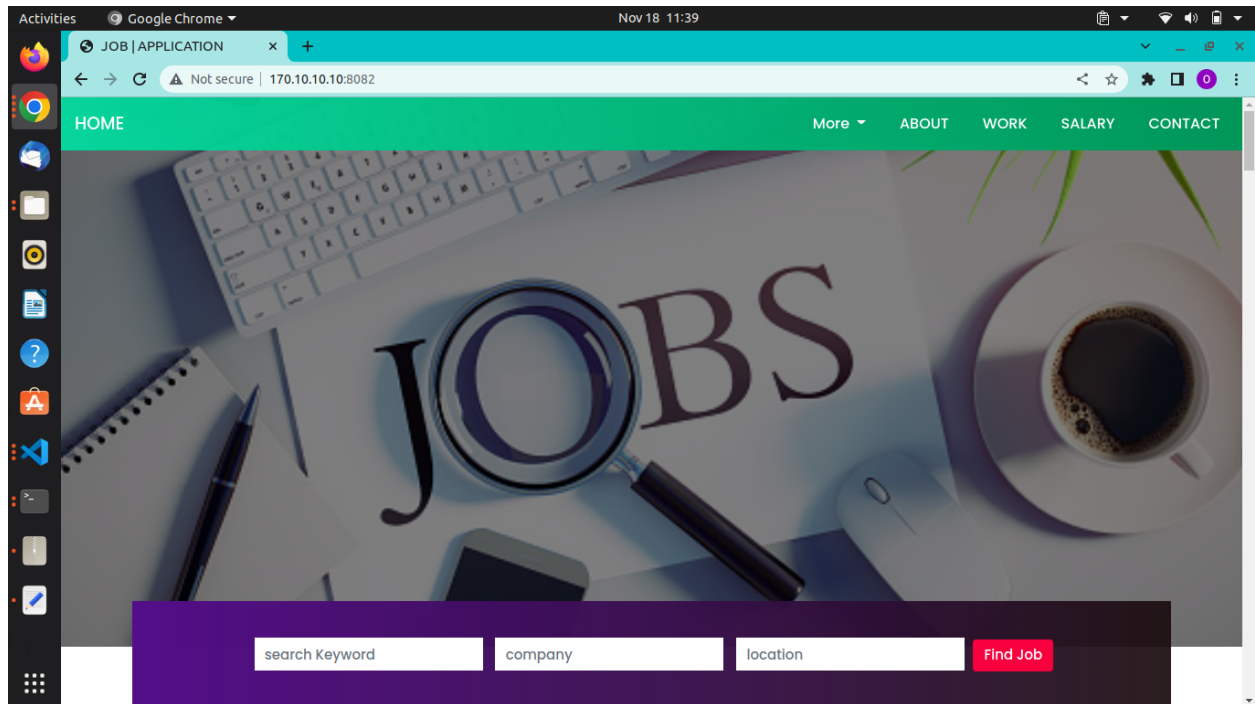
The screenshot shows the Visual Studio Code interface with a terminal window open. The terminal displays the following commands and output:

```
user@user-Latitude-3520:~/Desktop/IBM/assignment-4$ kubectl namespace-add jobapplication
No resource group is targeted. Therefore, the default resource group for the account ('Default') is targeted.
Adding namespace 'jobapplication' in resource group 'Default' for account NANTHINI P L's Account in registry icr.io...
Successfully added namespace 'jobapplication'
OK
user@user-Latitude-3520:~/Desktop/IBM/assignment-4$
```

The file explorer on the left shows a project structure with the following files and folders:

- task 1
 - readme.txt
- task 2
 - JobApplication
 - docker-compose.yml
 - Dockerfile
 - nginx.conf
 - readme.txt
- task 3
 - JobApplication
 - Dockerfile
 - readme.txt
- task 4

The status bar at the bottom indicates the current file is 'readme.txt' in the 'task 2' folder, with 32 lines selected. The status bar also shows the current file encoding as UTF-8 and the text format as Plain Text.



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

```
user@user-Latitude-3520:~$ ibmcloud login -a https://cloud.ibm.com
API endpoint: https://cloud.ibm.com
Email> nanspl2201@gmail.com
Password>
Authenticating...
OK
Targeted account NANTHINI P L's Account (95785120c9614156b888d6b251a5b858)
Select a region (or press enter to skip):
1. au-syd
2. in-che
3. jp-osa
4. jp-tok
5. kr-seo
6. eu-de
7. eu-gb
8. ca-tor
9. us-south
10. us-east
11. br-sao
Enter a number> 4
Targeted region jp-tok

API endpoint: https://cloud.ibm.com
Region: jp-tok
User: nanspl2201@gmail.com
Account: NANTHINI P L's Account (95785120c9614156b888d6b251a5b858)
Resource group: No resource group targeted, use 'ibmcloud target -g RESOURCE_GROUP'
CF API endpoint:
Org:
Space:
user@user-Latitude-3520:~$
```

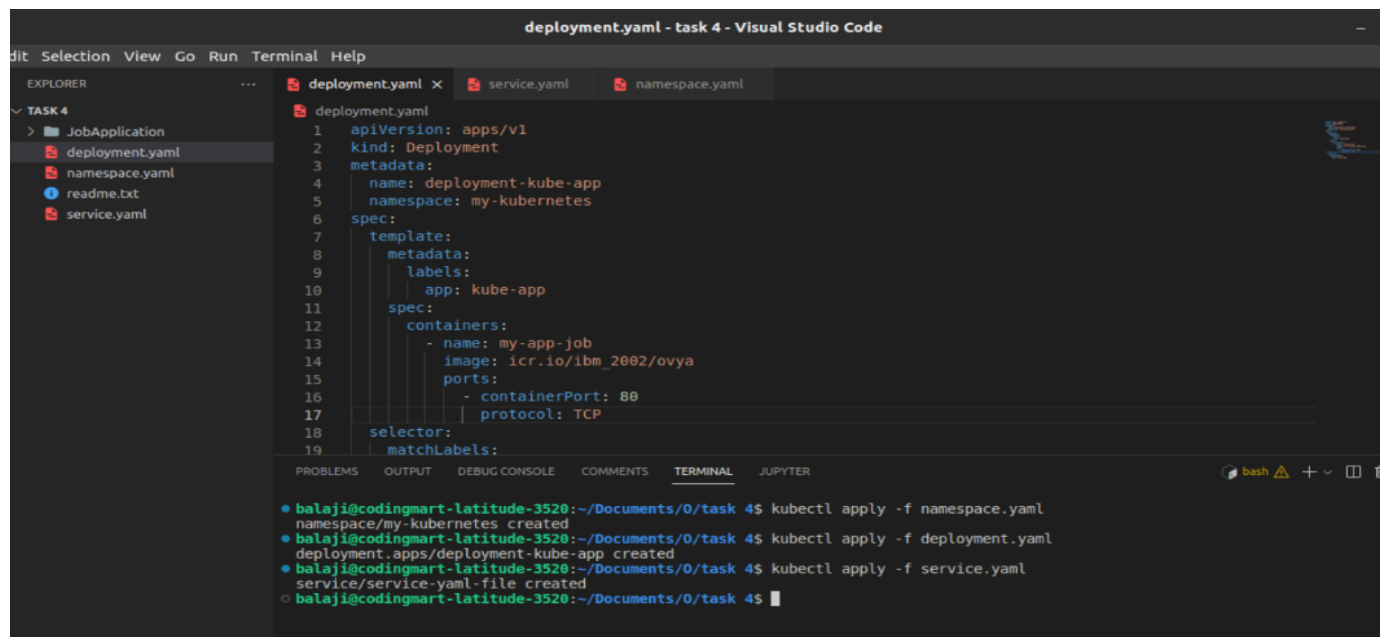
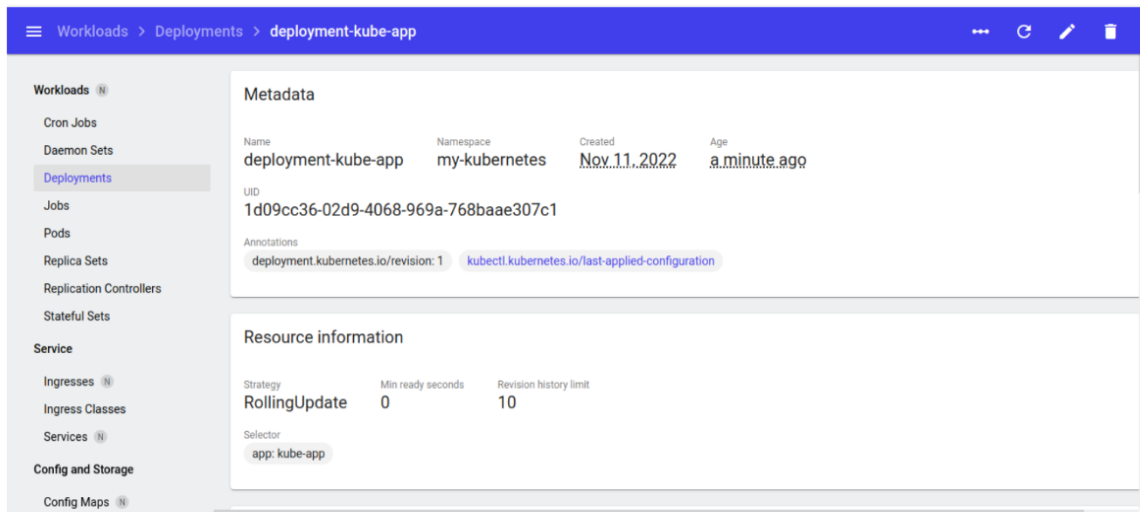
```
Activities Terminal Nov 18 11:50
user@user-Latitude-3520: ~/Desktop/IBM/assignment-4/task 3

user@user-Latitude-3520:~/Desktop/IBM/assignment-4$ cd "task 3"
user@user-Latitude-3520:~/Desktop/IBM/assignment-4/task 3$ ibmcloud cr namespace-add jobapplication
No resource group is targeted. Therefore, the default resource group for the account ('Default') is targeted.
Adding namespace 'jobapplication' in resource group 'Default' for account NANTHINI P L's Account in registry icr.io...
The requested namespace is already owned by your account.
OK
user@user-Latitude-3520:~/Desktop/IBM/assignment-4/task 3$ ibmcloud cr login
Logging 'docker' in to 'icr.io'...
Logged in to 'icr.io'.
OK
user@user-Latitude-3520:~/Desktop/IBM/assignment-4/task 3$ docker build . --tag icr.io/jobapplication/ibm-2022
Sending build context to Docker daemon 14.8MB
Step 1/2 : FROM ubuntu:latest
----> a8780b506fa4
Step 2/2 : COPY ./JobApplication /JobApplication
----> Using cache
----> f7ac5e100c8d
Successfully built f7ac5e100c8d
Successfully tagged icr.io/jobapplication/ibm-2022:latest
user@user-Latitude-3520:~/Desktop/IBM/assignment-4/task 3$ docker push icr.io/jobapplication/ibm-2022
Using default tag: latest
The push refers to repository [icr.io/jobapplication/ibm-2022]
18fe0676802c: Pushed
f4a670ac65b6: Pushed
latest: digest: sha256:be3df843bbb5d87e0e66130647467730cde3db22f1efa65a6d01df2c97de6f61 size: 741
user@user-Latitude-3520:~/Desktop/IBM/assignment-4/task 3$
```

```
Activities Terminal Nov 18 11:51
user@user-Latitude-3520: ~/Desktop/IBM/assignment-4/task 3

user@user-Latitude-3520:~/Desktop/IBM/assignment-4/task 3$ ibmcloud cr image-list
Listing images...
Repository Tag Digest Namespace Created Size Security status
icr.io/jobapplication/ibm-2022 latest be3df843bbb5 jobapplication 33 minutes ago 45 MB -
OK
user@user-Latitude-3520:~/Desktop/IBM/assignment-4/task 3$
```

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



IBM CLOUD CONTAINER REGISTRY

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+

cloud.ibm.com/registry/namespaces

GmailYouTubeMaps

IBM Cloud

Search resources and products...

CatalogManageNANTHINI P L's Account

Container Registry

Quick start

Namespaces1

Repositories1

Images1

Trash0

Settings

Namespaces

Location

Global

Resource group: Filter...Search

Create

<input type="checkbox"/>	Name	Resource group	Repository count	Image count	Retention policy	
<input type="checkbox"/>	jobapplication	Default	1	1	Retain all images	

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cloud.ibm.com/registry/repos

Gmail

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IBM Cloud

Search resources and products...

Catalog

Manage

NANTHINI P L's Account

Container Registry

Quick start

Namespaces1

Repositories1

Images1

Trash0

Settings

Repositories

LocationGlobal

Search

Create

	Name	Image count	Namespace	Last updated	
	ibm-2022 icr.io/jobapplication/ibm-2022	1	jobapplication	1 hour ago	

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Gmail

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Maps

IBM Cloud

Search resources and products...

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NANTHINI P L's Account

Container Registry

Quick start

Namespaces1

Repositories1

Images1

Trash0

Settings

Images

LocationGlobal

View by: Digest

Search

Create

	Repository@digest	Tags	Manifest type	Created	Size	Security status	
	jobapplication/ibm-2022@sha256:be3df843bbb5...	latest	Docker	1 hour ago	45 MB	No issues	

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