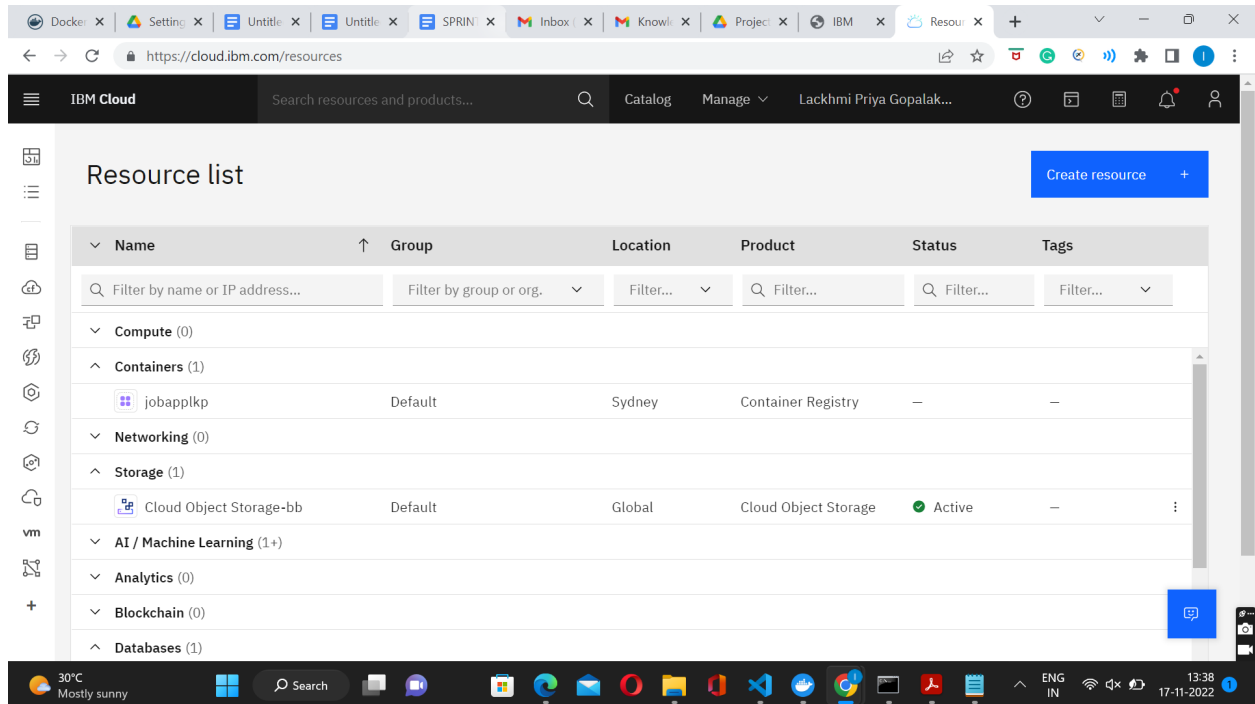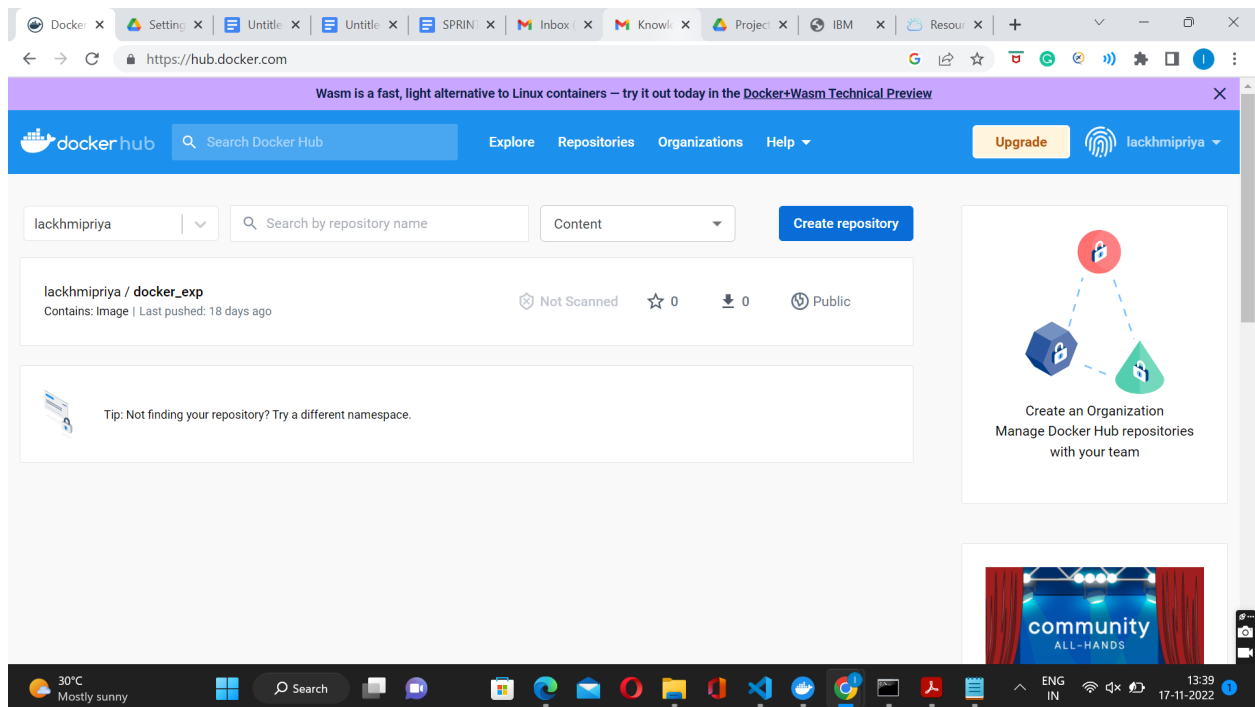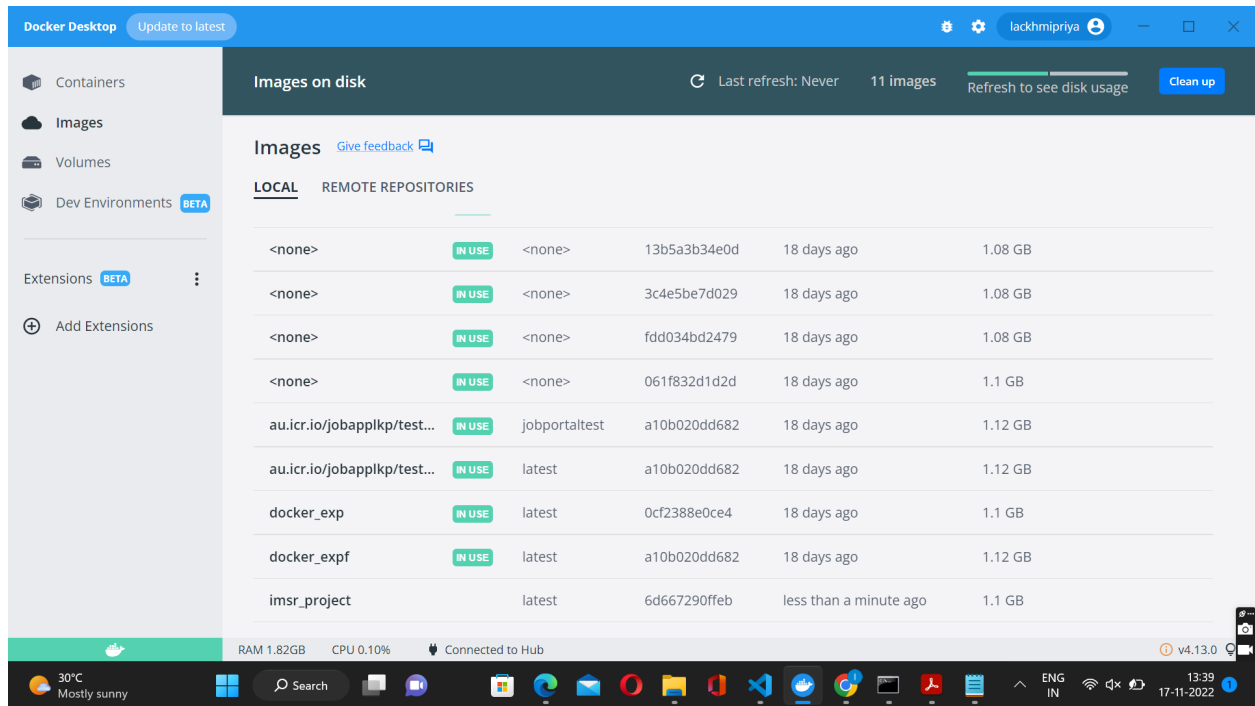# SETTING UP ENVIRONMENT APPLICATION

| Team ID | PNT2022TMID18119 |
|---|---|
| Project Name | Inventory management system for retailer |

## IBM CLOUD ACCOUNT



## DOCKER CLI INSTALLATION

## Docker Desktop (top screenshot)

Docker Desktop — Update to latest — lackhmipriya

- Containers
- Images
- Volumes
- Dev Environments BETA

Extensions BETA

Add Extensions

**Images on disk**    Last refresh: Never    11 images    Refresh to see disk usage    Clean up

**Images**   Give feedback

**LOCAL**   REMOTE REPOSITORIES

| | | | | |
|---|---|---|---|---|
| <none> | IN USE | <none> | 13b5a3b34e0d | 18 days ago | 1.08 GB |
| <none> | IN USE | <none> | 3c4e5be7d029 | 18 days ago | 1.08 GB |
| <none> | IN USE | <none> | fdd034bd2479 | 18 days ago | 1.08 GB |
| <none> | IN USE | <none> | 061f832d1d2d | 18 days ago | 1.1 GB |
| au.icr.io/jobapplkp/test... | IN USE | jobportaltest | a10b020dd682 | 18 days ago | 1.12 GB |
| au.icr.io/jobapplkp/test... | IN USE | latest | a10b020dd682 | 18 days ago | 1.12 GB |
| docker_exp | IN USE | latest | 0cf2388e0ce4 | 18 days ago | 1.1 GB |
| docker_expf | IN USE | latest | a10b020dd682 | 18 days ago | 1.12 GB |
| imsr_project | | latest | 6d667290ffeb | less than a minute ago | 1.1 GB |

RAM 1.82GB    CPU 0.10%    Connected to Hub    v4.13.0

30°C Mostly sunny    ENG IN    13:39 17-11-2022

## Docker Hub (bottom screenshot)

https://hub.docker.com

Wasm is a fast, light alternative to Linux containers — try it out today in the Docker+Wasm Technical Preview

docker hub    Search Docker Hub    Explore   Repositories   Organizations   Help    Upgrade    lackhmipriya

lackhmipriya

Search by repository name    Content    Create repository

**lackhmipriya / docker_exp**
Contains: Image | Last pushed: 18 days ago
Not Scanned    0    0    Public

Tip: Not finding your repository? Try a different namespace.

Create an Organization
Manage Docker Hub repositories with your team

community ALL-HANDS

30°C Mostly sunny    ENG IN    13:39 17-11-2022

```
Usage:  docker build [OPTIONS] PATH | URL | -

Build an image from a Dockerfile

C:\Users\lackh\OneDrive\Desktop\imsr_project>docker build -t imsr_project .
[+] Building 0.1s (2/2) FINISHED
 => [internal] load build definition from Dockerfile                                                0.1s
 => => transferring dockerfile: 2B                                                                  0.0s
 => [internal] load .dockerignore                                                                   0.1s
 => => transferring context: 2B                                                                     0.0s
failed to solve with frontend dockerfile.v0: failed to read dockerfile: open /var/lib/docker/tmp/buildkit-mount3821532235/Dockerfile: no such file or directory

C:\Users\lackh\OneDrive\Desktop\imsr_project>docker build . -t imsr_project
[+] Building 253.7s (12/12) FINISHED
 => [internal] load build definition from Dockerfile                                                0.1s
 => => transferring dockerfile: 262B                                                                0.1s
 => [internal] load .dockerignore                                                                   0.0s
 => => transferring context: 2B                                                                     0.0s
 => [internal] load metadata for docker.io/library/python:3.10.5                                    3.7s
 => [auth] library/python:pull token for registry-1.docker.io                                       0.0s
 => [internal] load build context                                                                   0.1s
 => => transferring context: 332.41kB                                                               0.1s
 => CACHED [1/6] FROM docker.io/library/python:3.10.5@sha256:fecbf94b56ce1f20a29427ff697bccbc659952f0b99eb8f3ba8296b8a5146d91   0.0s
 => [2/6] WORKDIR /imsr_project                                                                     0.1s
 => [3/6] ADD . /imsr_project                                                                       0.1s
 => [4/6] COPY requirements.txt /imsr_project                                                       0.1s
 => [5/6] RUN python3 -m pip install -r requirements.txt                                          243.7s
 => [6/6] RUN python3 -m pip install ibm_db                                                         3.3s
 => exporting to image                                                                              2.4s
 => => exporting layers                                                                             2.3s
 => => writing image sha256:6d667290ffeb25fe3a756121bbff72b40baa8d6b36eee7cd8b192f7be04eee1d        0.0s
 => => naming to docker.io/library/imsr_project                                                     0.0s

Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them

C:\Users\lackh\OneDrive\Desktop\imsr_project>
```
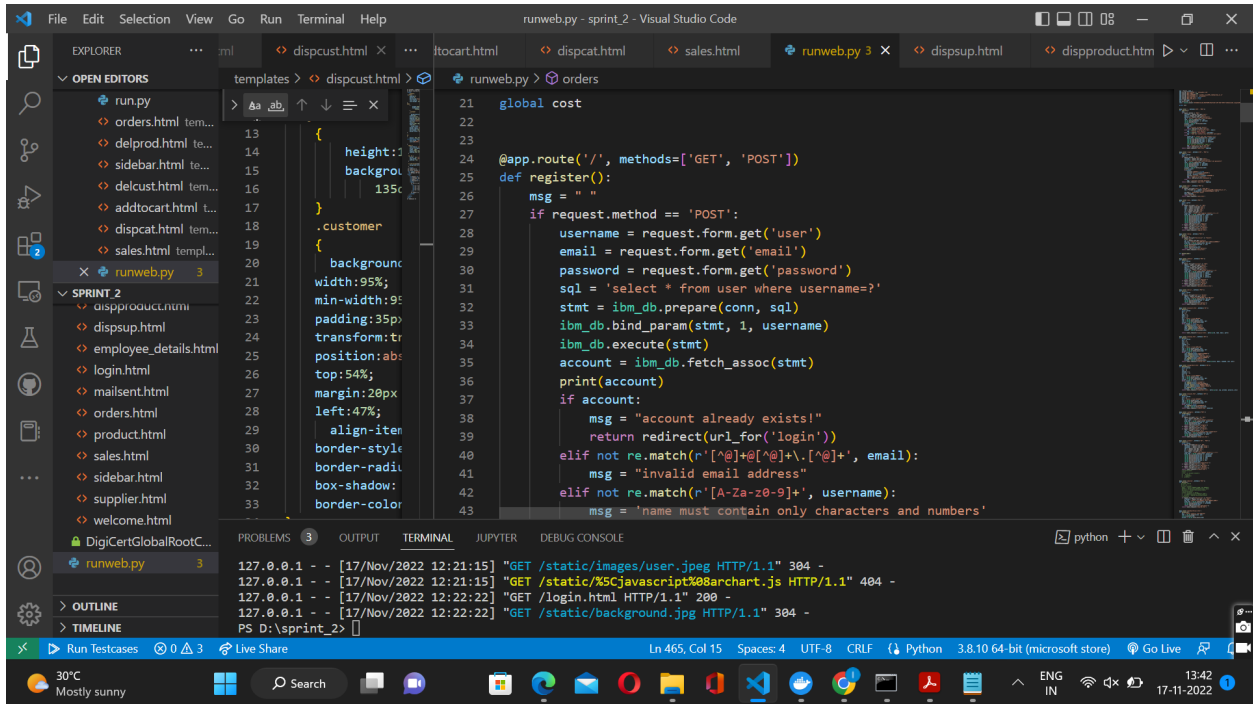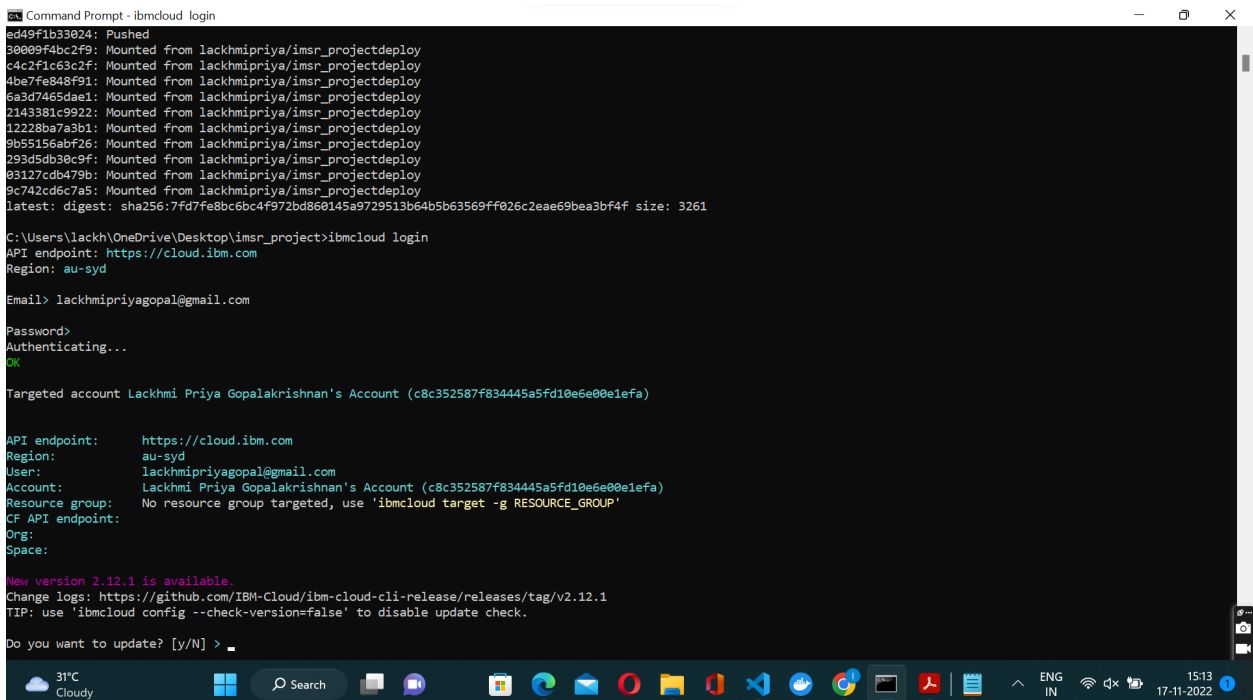
# CREATE FLASK PROJECT

```python
import email
from flask import Flask, render_template, request, redirect, url_for, session
from flask_mail import Mail, Message
import os
import ibm_db
import re
import datetime


app = Flask(__name__)
app.config['MAIL_SERVER'] = 'smtp.gmail.com'
app.config['MAIL_PORT'] = 465
app.config['MAIL_USERNAME'] = 'lackhmi.priya2001_ec@mepcoeng.ac.in'
app.config['MAIL_PASSWORD'] = 'priya2112!'
app.config['MAIL_USE_TLS'] = False
app.config['MAIL_USE_SSL'] = True
mail = Mail(app)
app.secret_key = 'a'
conn = ibm_db.connect('DATABASE=bludb;HOSTNAME=54a2f15b-5c0f-46df-8954-7e38e612c2bd.c1ogj3

global cost
```

```
127.0.0.1 - - [17/Nov/2022 12:21:15] "GET /static/images/user.jpeg HTTP/1.1" 304 -
127.0.0.1 - - [17/Nov/2022 12:21:15] "GET /static/%5Cjavascript%08archart.js HTTP/1.1" 404 -
127.0.0.1 - - [17/Nov/2022 12:22:22] "GET /login.html HTTP/1.1" 200 -
127.0.0.1 - - [17/Nov/2022 12:22:22] "GET /static/background.jpg HTTP/1.1" 304 -
PS D:\sprint_2>
```

## IBM CLOUD CLI

ed49f1b33024: Pushed
30009f4bc2f9: Mounted from lackhmipriya/imsr_projectdeploy
c4c2f1c63c2f: Mounted from lackhmipriya/imsr_projectdeploy
4be7fe848f91: Mounted from lackhmipriya/imsr_projectdeploy
6a3d7465dae1: Mounted from lackhmipriya/imsr_projectdeploy
2143381c9922: Mounted from lackhmipriya/imsr_projectdeploy
12228ba7a3b1: Mounted from lackhmipriya/imsr_projectdeploy
9b55156abf26: Mounted from lackhmipriya/imsr_projectdeploy
293d5db30c9f: Mounted from lackhmipriya/imsr_projectdeploy
03127cdb479b: Mounted from lackhmipriya/imsr_projectdeploy
9c742cd6c7a5: Mounted from lackhmipriya/imsr_projectdeploy
latest: digest: sha256:7fd7fe8bc6bc4f972bd860145a9729513b64b5b63569ff026c2eae69bea3bf4f size: 3261

```
C:\Users\lackh\OneDrive\Desktop\imsr_project>ibmcloud login
API endpoint: https://cloud.ibm.com
Region: au-syd

Email> lackhmipriyagopal@gmail.com

Password>
Authenticating...
OK

Targeted account Lackhmi Priya Gopalakrishnan's Account (c8c352587f834445a5fd10e6e00e1efa)


API endpoint:      https://cloud.ibm.com
Region:            au-syd
User:              lackhmipriyagopal@gmail.com
Account:           Lackhmi Priya Gopalakrishnan's Account (c8c352587f834445a5fd10e6e00e1efa)
Resource group:    No resource group targeted, use 'ibmcloud target -g RESOURCE_GROUP'
CF API endpoint:
Org:
Space:

New version 2.12.1 is available.
Change logs: https://github.com/IBM-Cloud/ibm-cloud-cli-release/releases/tag/v2.12.1
TIP: use 'ibmcloud config --check-version=false' to disable update check.

Do you want to update? [y/N] >
```

## Set region for container registry



**4) Log your local Docker daemon into the IBM Cloud Container Registry.**

```
New version 2.12.1 is available.
Change logs: https://github.com/IBM-Cloud/ibm-cloud-cli-release/releases/tag/v2.12.1
TIP: use 'ibmcloud config --check-version=false' to disable update check.

Do you want to update? [y/N] > N

C:\Users\lackh\OneDrive\Desktop\imsr_project>docker login
Authenticating with existing credentials...
Login Succeeded

Logging in with your password grants your terminal complete access to your account.
For better security, log in with a limited-privilege personal access token. Learn more at https://docs.docker.com/go/access-tokens/

C:\Users\lackh\OneDrive\Desktop\imsr_project>ibmcloud cr region-set ap-south
The region is set to 'ap-south', the registry is 'au.icr.io'.

OK

C:\Users\lackh\OneDrive\Desktop\imsr_project>ibmcloud cr login
Logging 'docker' in to 'au.icr.io'...
Logged in to 'au.icr.io'.

OK
```

Command Prompt

```
C:\Users\lackh\OneDrive\Desktop\imsr_project>ibmcloud cr region-set ap-south
The region is set to 'ap-south', the registry is 'au.icr.io'.

OK

C:\Users\lackh\OneDrive\Desktop\imsr_project>ibmcloud cr login
Logging 'docker' in to 'au.icr.io'...
Logged in to 'au.icr.io'.

OK

C:\Users\lackh\OneDrive\Desktop\imsr_project>docker tag imsr_project au.icr.io/imsrprojectmepco/imsrprojectrepo:imsrprojectmepco

C:\Users\lackh\OneDrive\Desktop\imsr_project>docker tag imsr_project au.icr.io/imsrprojectmepco/lackhmipriya:imsrprojectmepco

C:\Users\lackh\OneDrive\Desktop\imsr_project>/
'/' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\lackh\OneDrive\Desktop\imsr_project>docker tag imsr_project au.icr.io/imsrprojectmepco/imsrprojectdeploy:imsrproject

C:\Users\lackh\OneDrive\Desktop\imsr_project>docker push au.icr.io/imsrprojectmepco/imsrprojectdeploy:imsrproject
The push refers to repository [au.icr.io/imsrprojectmepco/imsrprojectdeploy]
5335456bda1a: Pushed
e36bab1a302c: Pushed
2a25a8cb3b69: Pushed
ed49f1b33024: Pushed
30009f4bc2f9: Pushed
c4c2f1c63c2f: Pushed
4be7fe848f91: Pushed
6a3d7465dae1: Pushed
2143381c9922: Pushed
12228ba7a3b1: Pushed
9b55156abf26: Pushed
293d5db30c9f: Pushed
03127cdb479b: Pushed
9c742cd6c7a5: Pushed
imsrproject: digest: sha256:7fd7fe8bc6bc4f972bd860145a9729513b64b5b63569ff026c2eae69bea3bf4f size: 3261

C:\Users\lackh\OneDrive\Desktop\imsr_project>
```
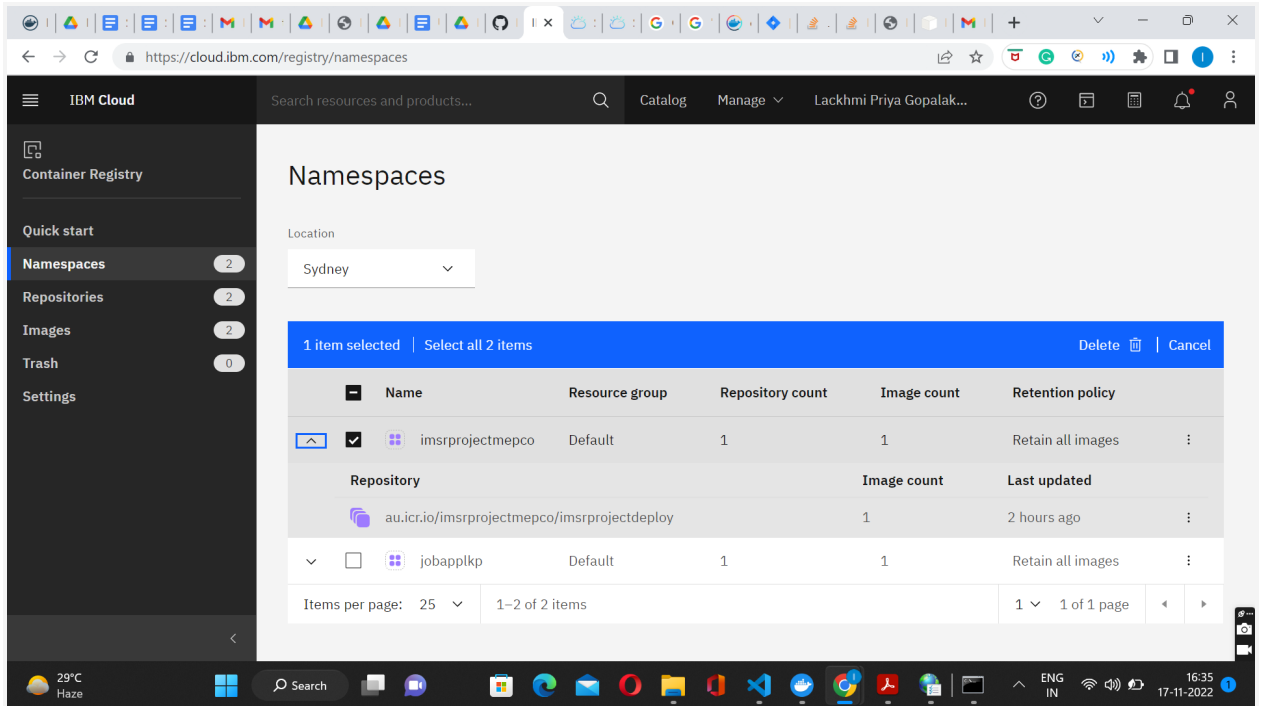
# 5. Verify that your image is in your private registry

```
C:\Users\lackh\OneDrive\Desktop\imsr_project>ibmcloud cr image-list
Listing images...

Repository                                    Tag            Digest         Namespace           Created       Size     Security status
au.icr.io/imsrprojectmepco/imsrprojectdeploy  imsrproject    7fd7fe8bc6bc   imsrprojectmepco    1 hour ago    443 MB   -
au.icr.io/jobapplkp/testrepo                  jobportaltest  ae8079f651d8   jobapplkp           2 weeks ago   449 MB   -

OK
```
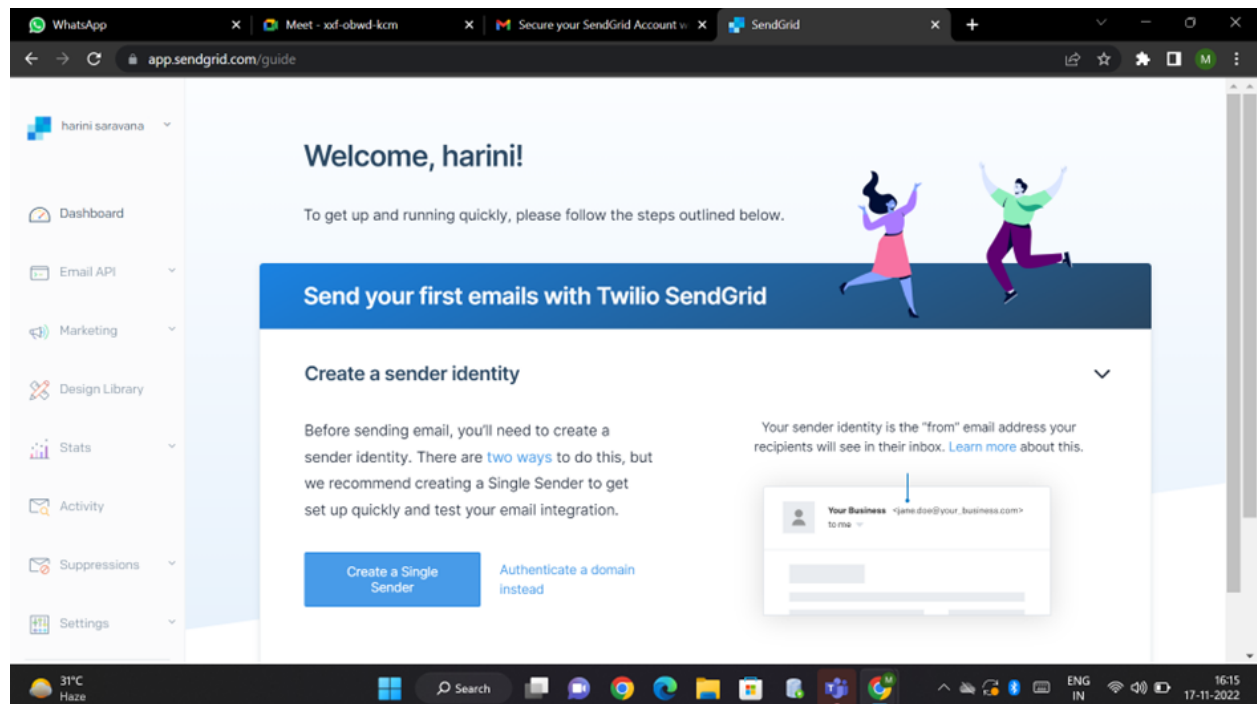
## CREATING A SEND GRID ACCOUNT