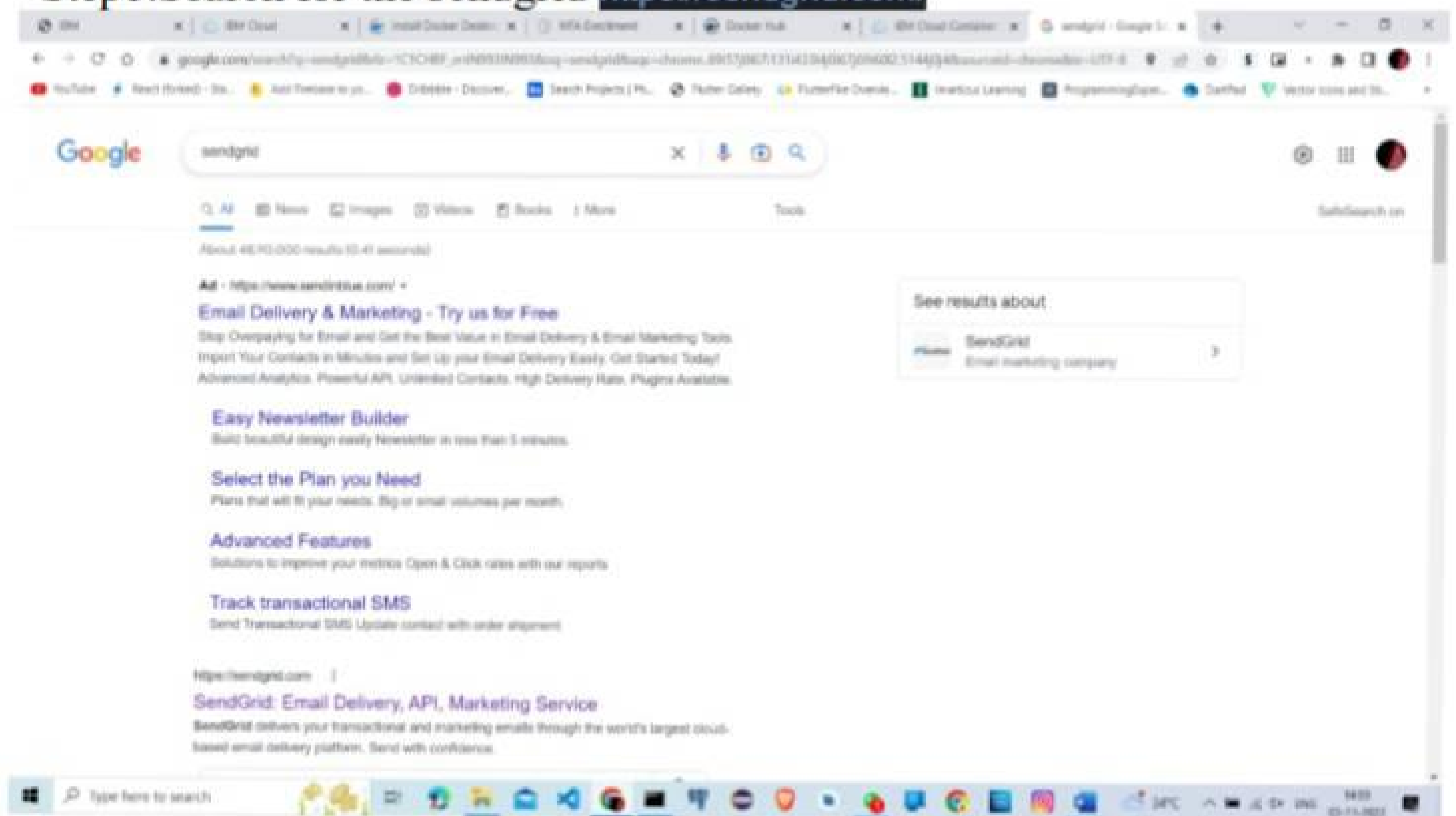
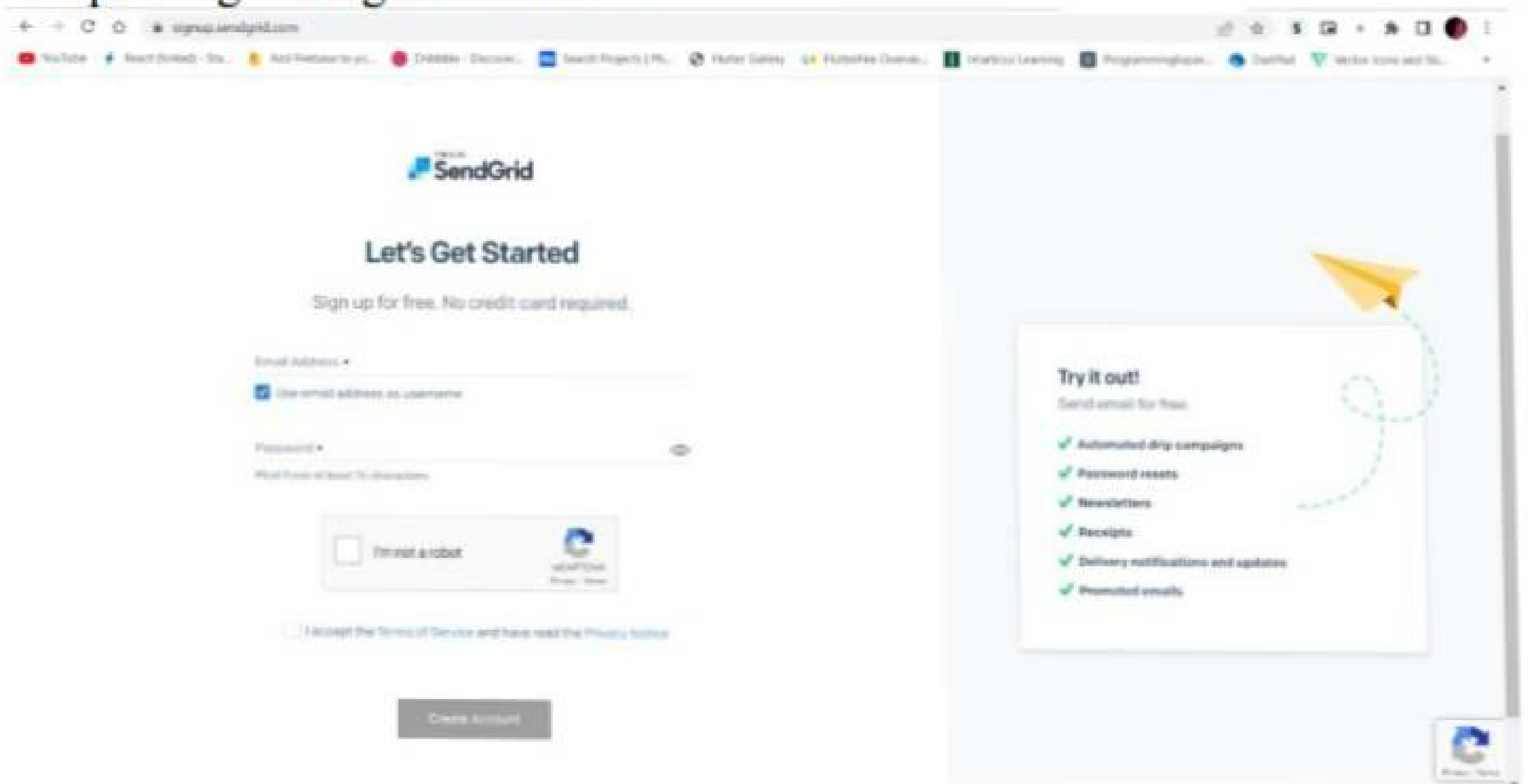


1. SENDGRID ACCOUNT CREATION:

Step 1: Search for the sendgrid <https://sendgrid.com/>



Step 2: Registering new account



The screenshot shows the SendGrid sign-up page in a web browser. The browser's address bar shows 'signup.sendgrid.com'. The page has a light blue background with the SendGrid logo at the top. The main heading is 'Let's Get Started' with the subtext 'Sign up for free. No credit card required.' Below this are two input fields: 'Email Address' and 'Password'. The 'Email Address' field has a checkbox labeled 'Use email address as username'. The 'Password' field has a toggle for 'Show/Hide Password'. Below the password field is a checkbox for 'I'm not a robot' with a CAPTCHA image. At the bottom is a checkbox for 'I accept the Terms of Service and have read the Privacy Notice'. A 'Create Account' button is at the bottom right. On the right side of the page, there is a 'Try it out!' section with a list of features: 'Send email for free', 'Automated drip campaigns', 'Password resets', 'Newsletters', 'Receipts', 'Delivery notifications and updates', and 'Promoted emails'. A yellow paper plane icon is at the top right of this section, with a dashed line trailing off to the right.

SendGrid

Let's Get Started

Sign up for free. No credit card required.

Email Address *

☒ Use email address as username

Password *

Must have at least 75 characters

☐ I'm not a robot

☐ I accept the Terms of Service and have read the Privacy Notice

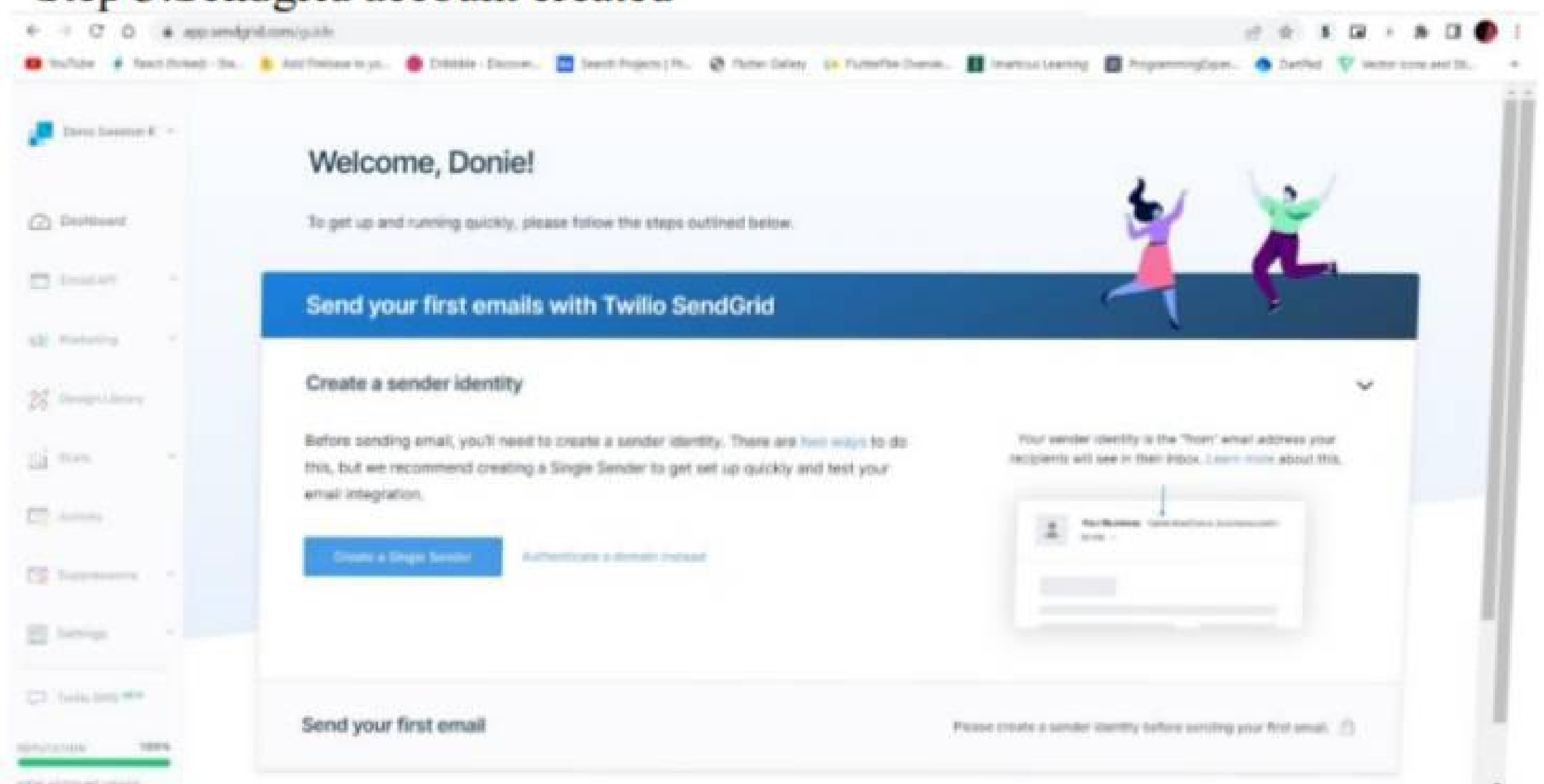
Create Account

Try it out!

Send email for free.

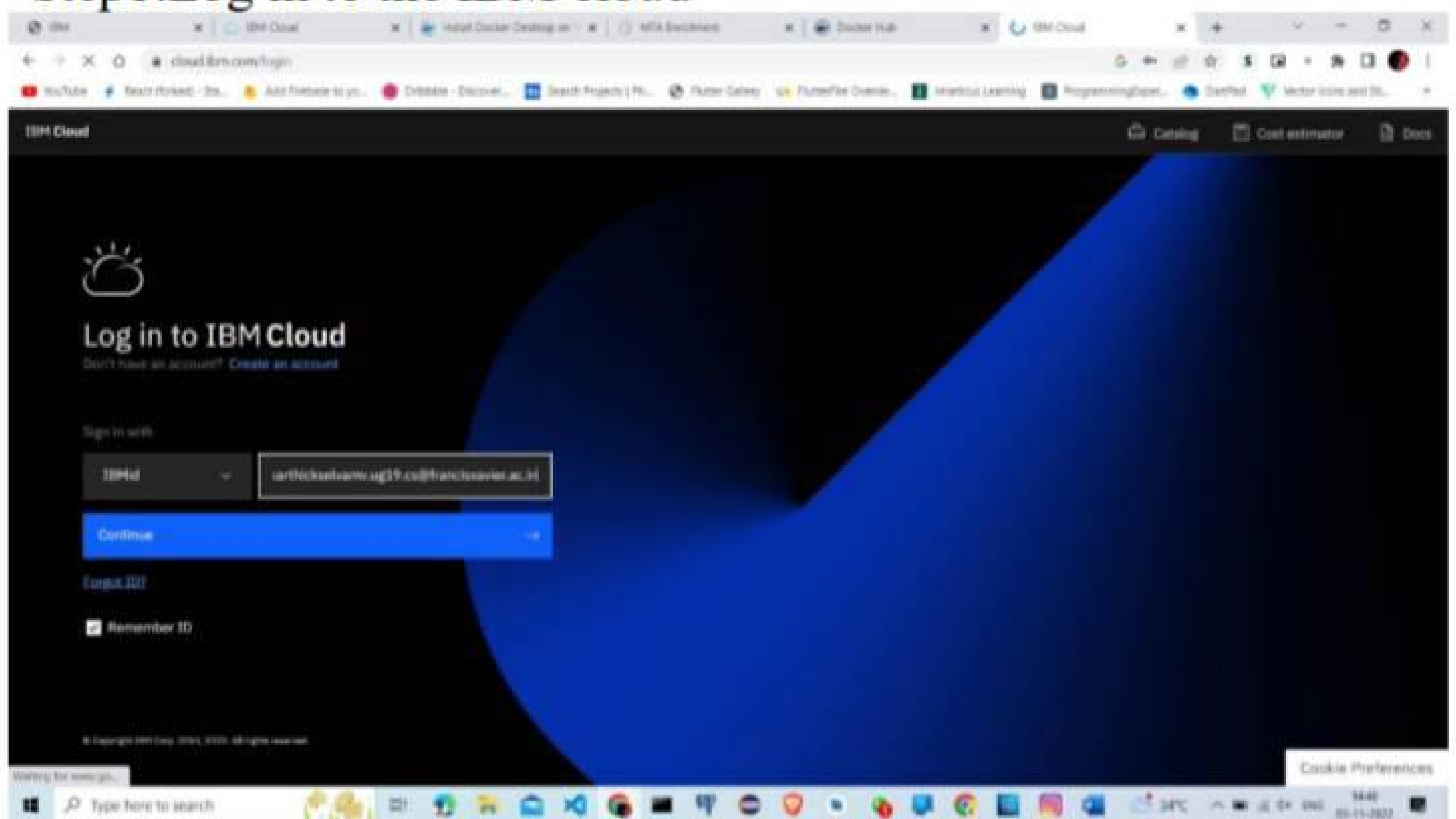
- ✓ Automated drip campaigns
- ✓ Password resets
- ✓ Newsletters
- ✓ Receipts
- ✓ Delivery notifications and updates
- ✓ Promoted emails

Step 3: Sendgrid account created



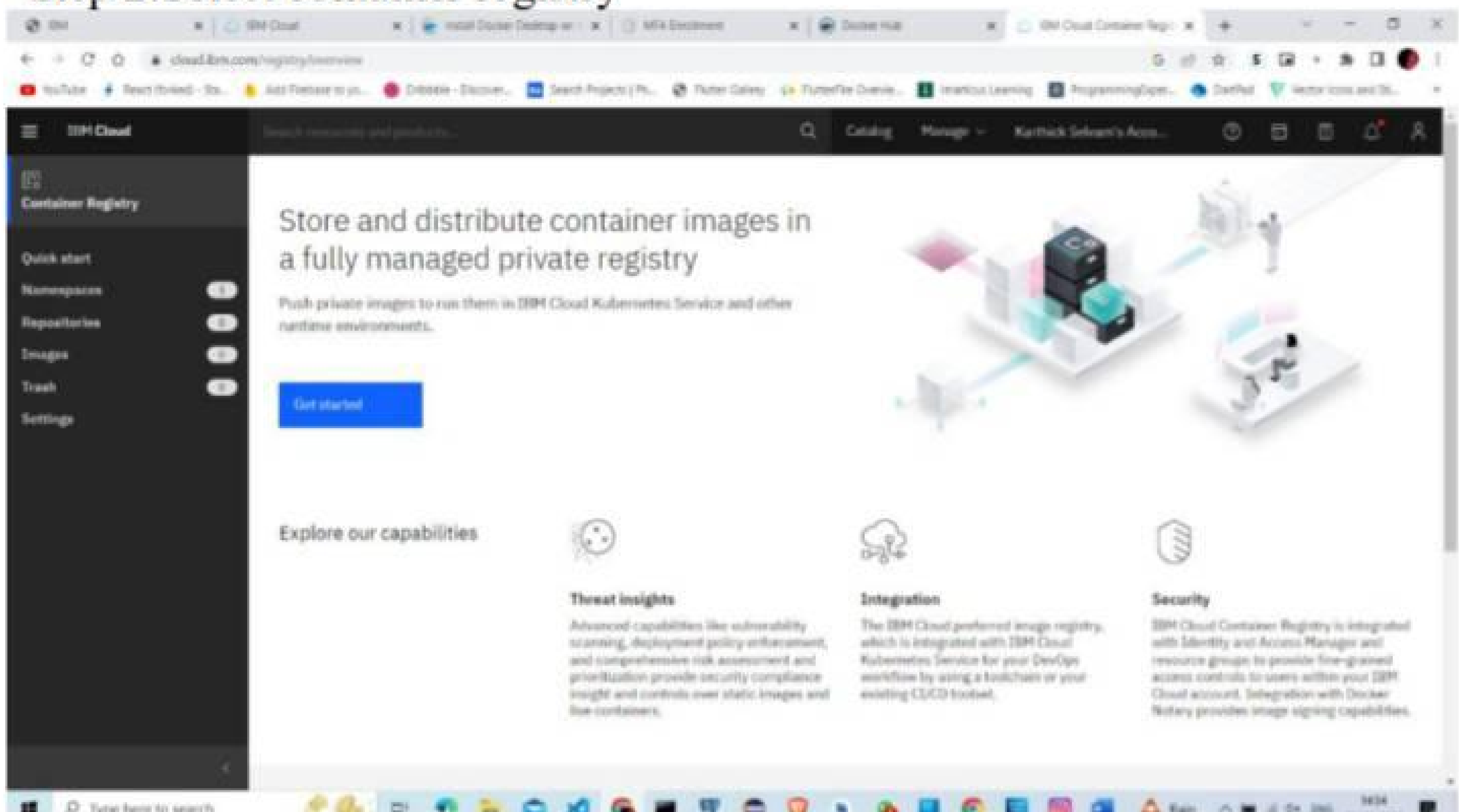
2. IBM CLOUD CLI INSTALLATION:

Step1:Log in to the IBM cloud

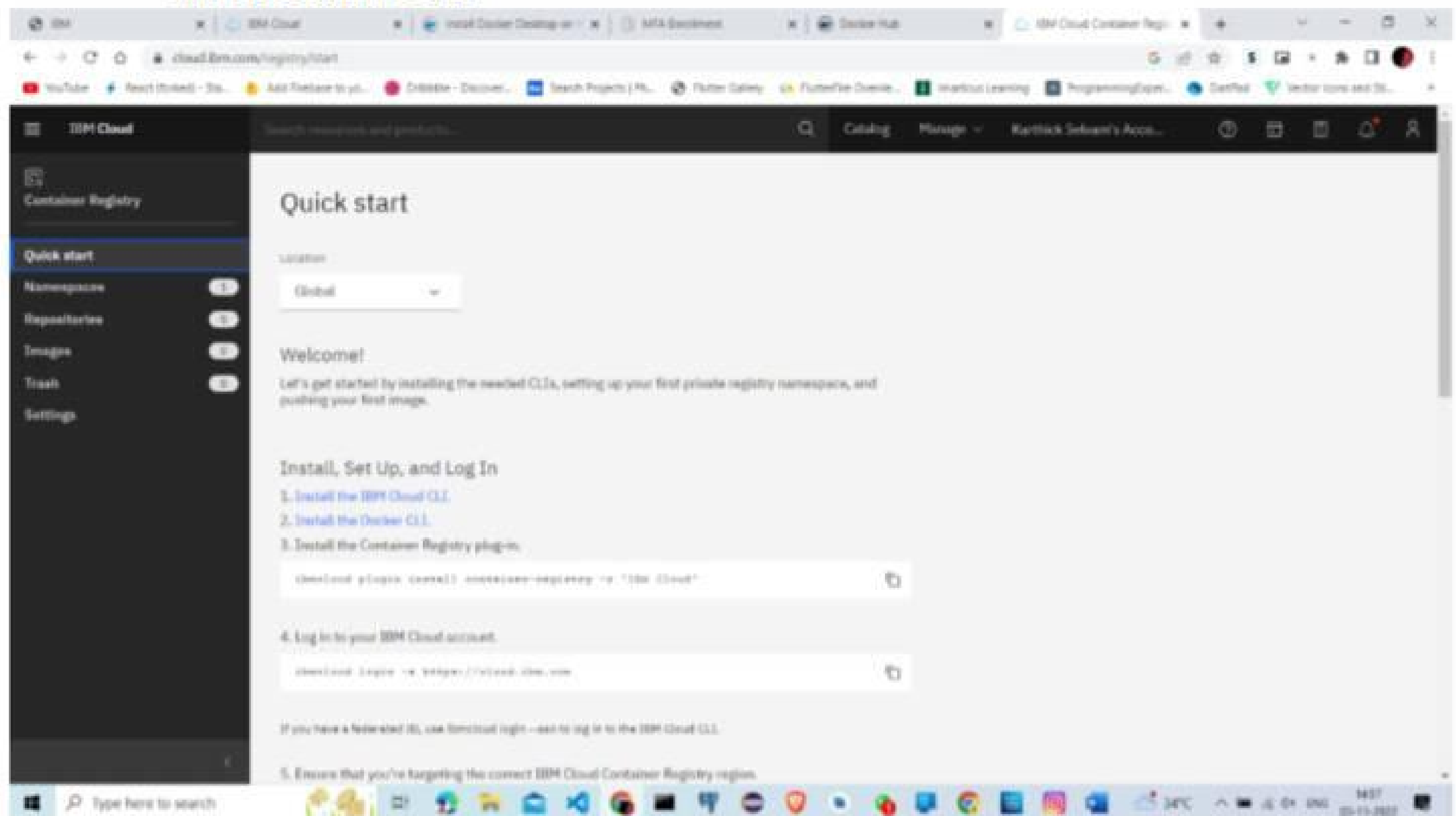


SETTING UP APPLICATION ENVIRONMENT

Step 2: Select container registry

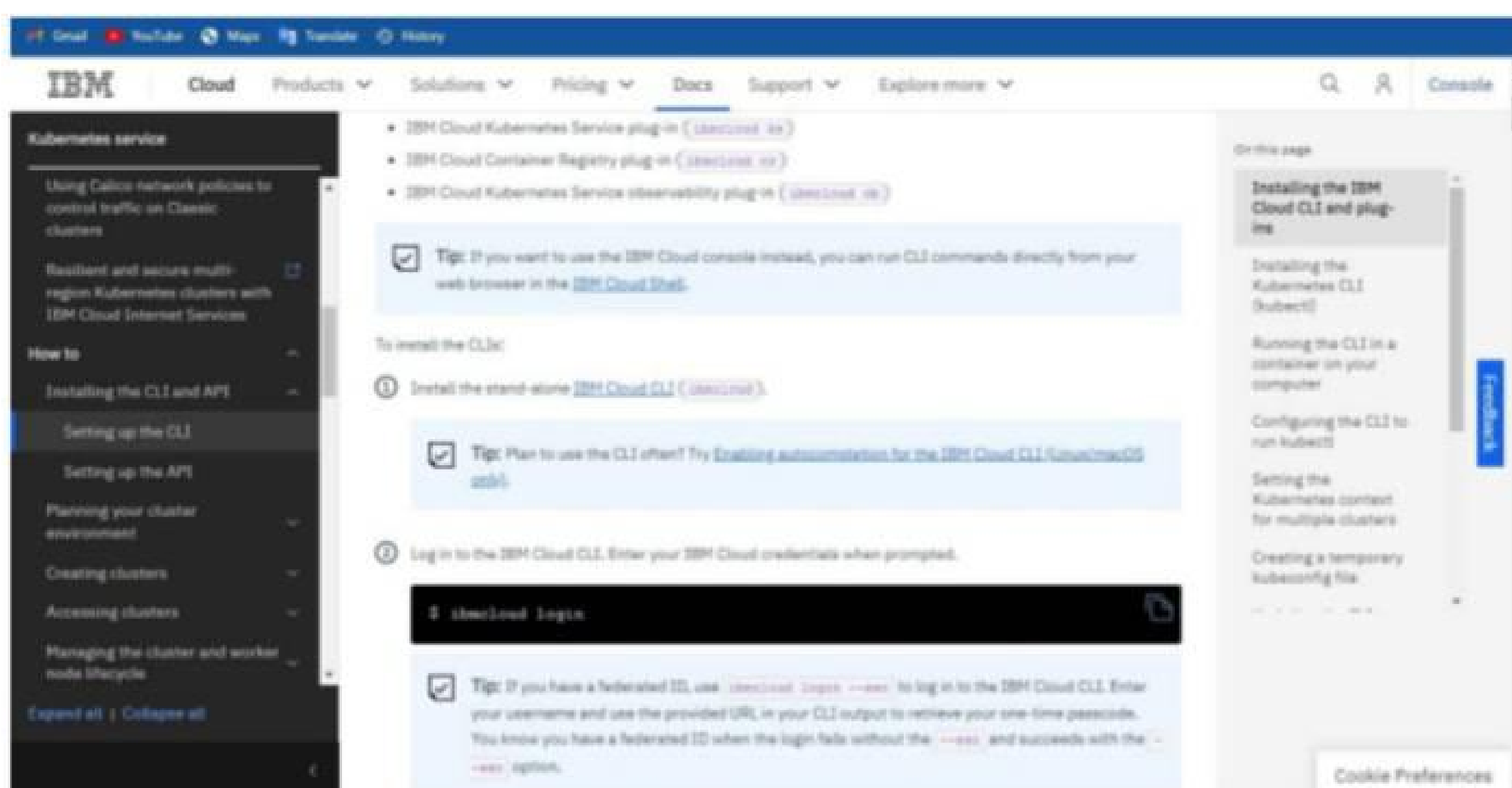


Step3: Select Quickstart to open container registry and click on install IBM Cloud CLI

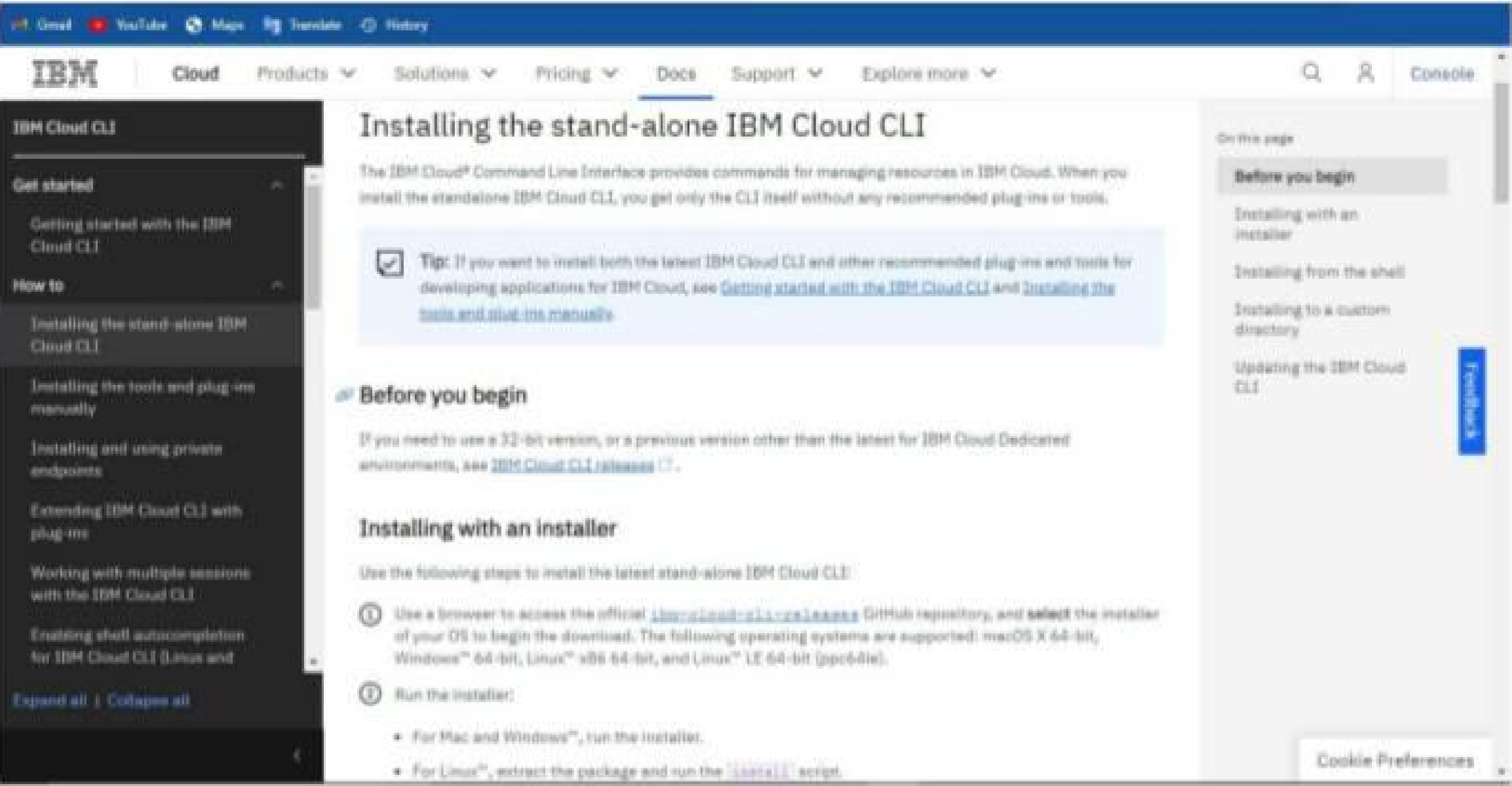


SETTING UP APPLICATION ENVIRONMENT

Step 4: Click on IBM Cloud CLI

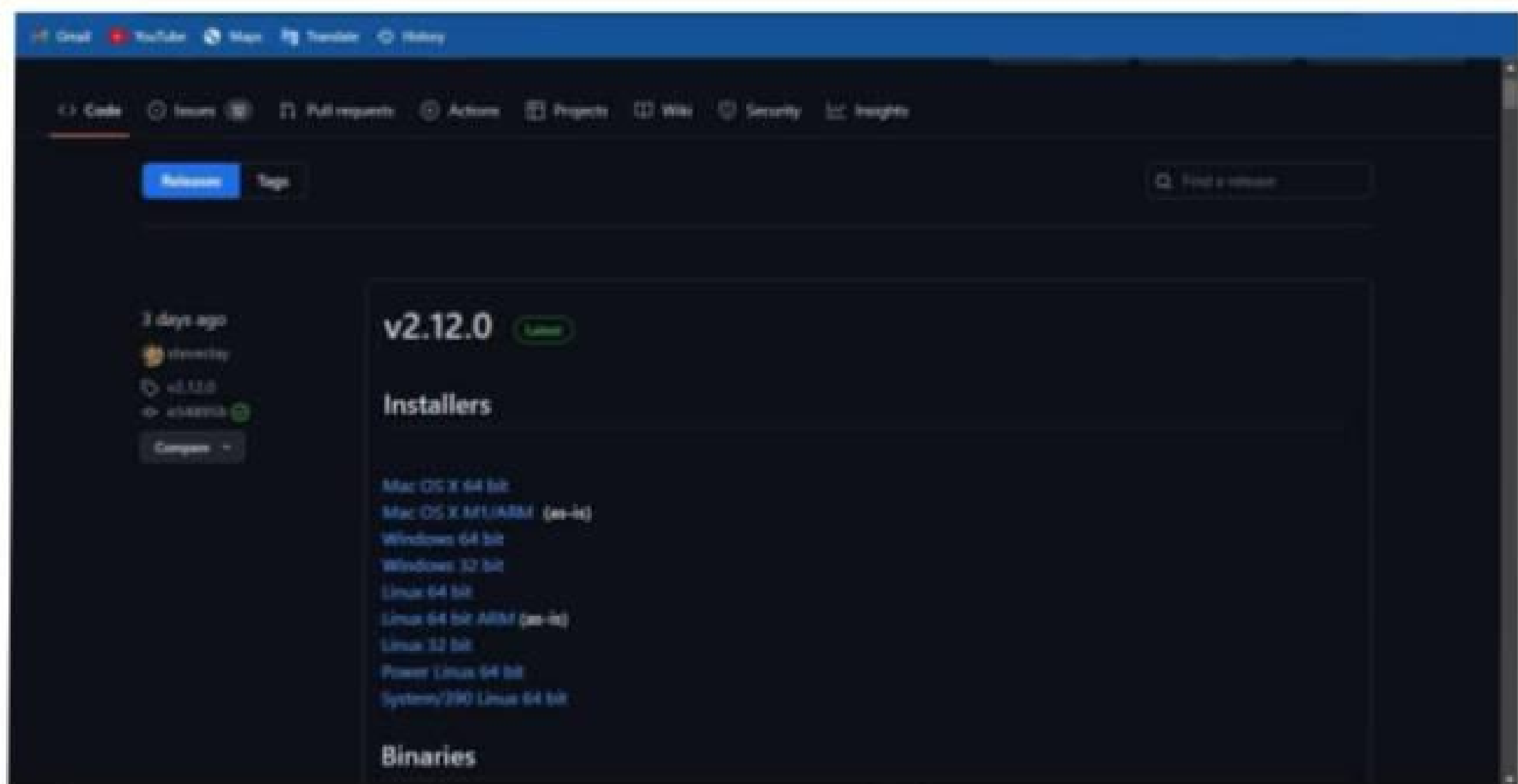


Step 5: And then, Click on IBM Cloud CLI releases

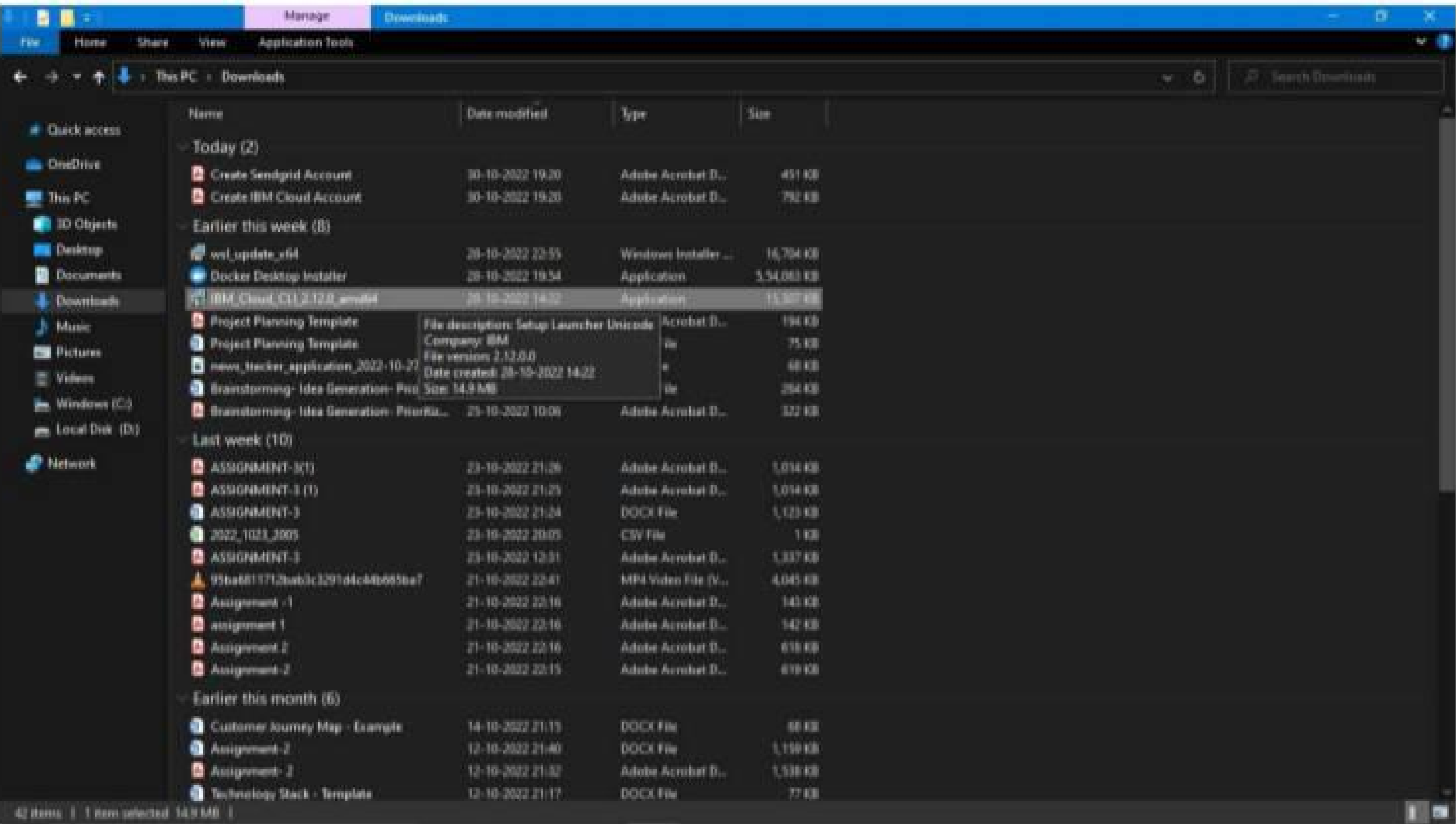


SETTING UP APPLICATION ENVIRONMENT

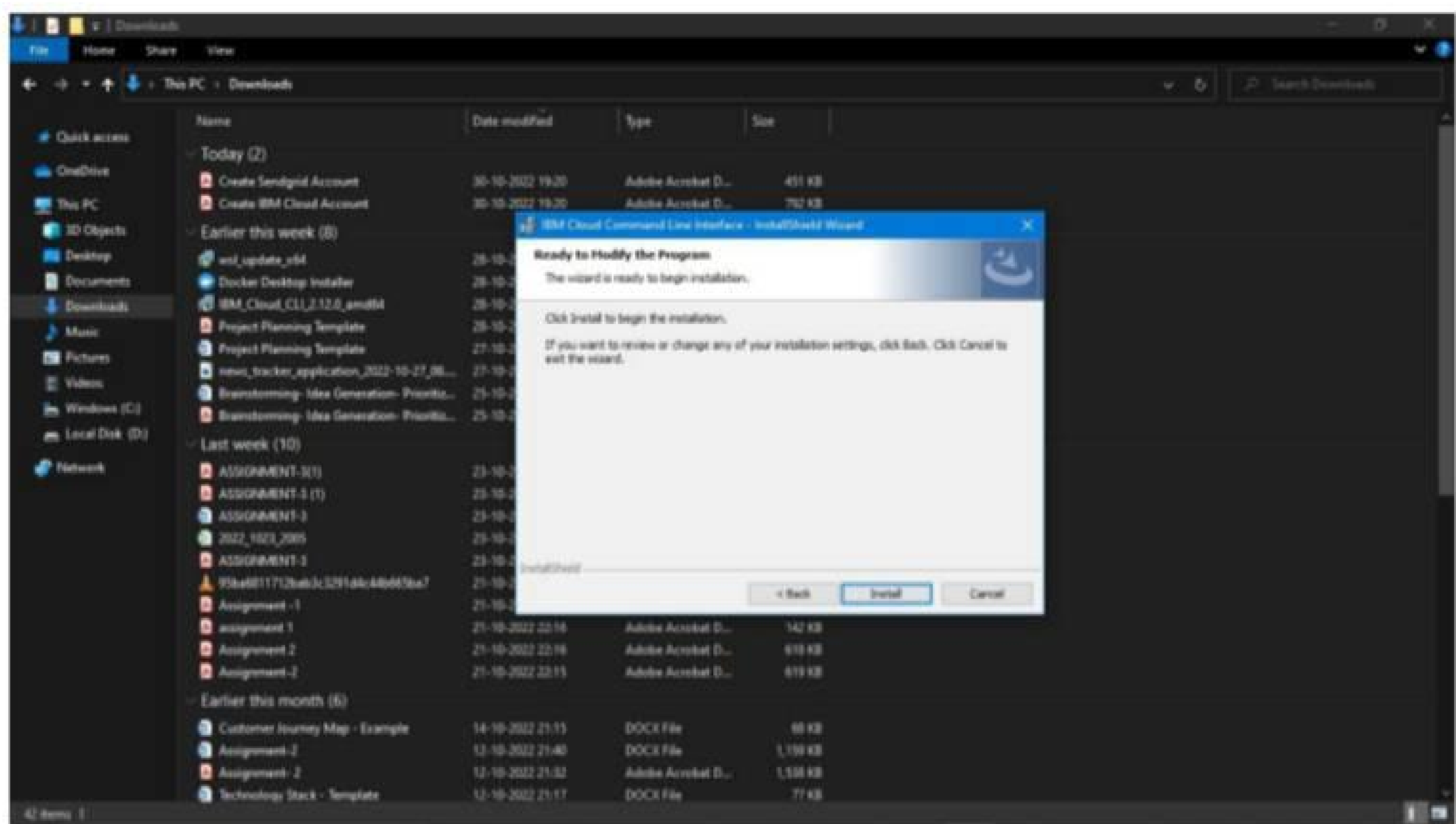
Step 6: After that, the github page will open and download the IBM CLI installer by selecting as per your system required installer.



Step 7:After the download,Click the downloaded setup to run the installer

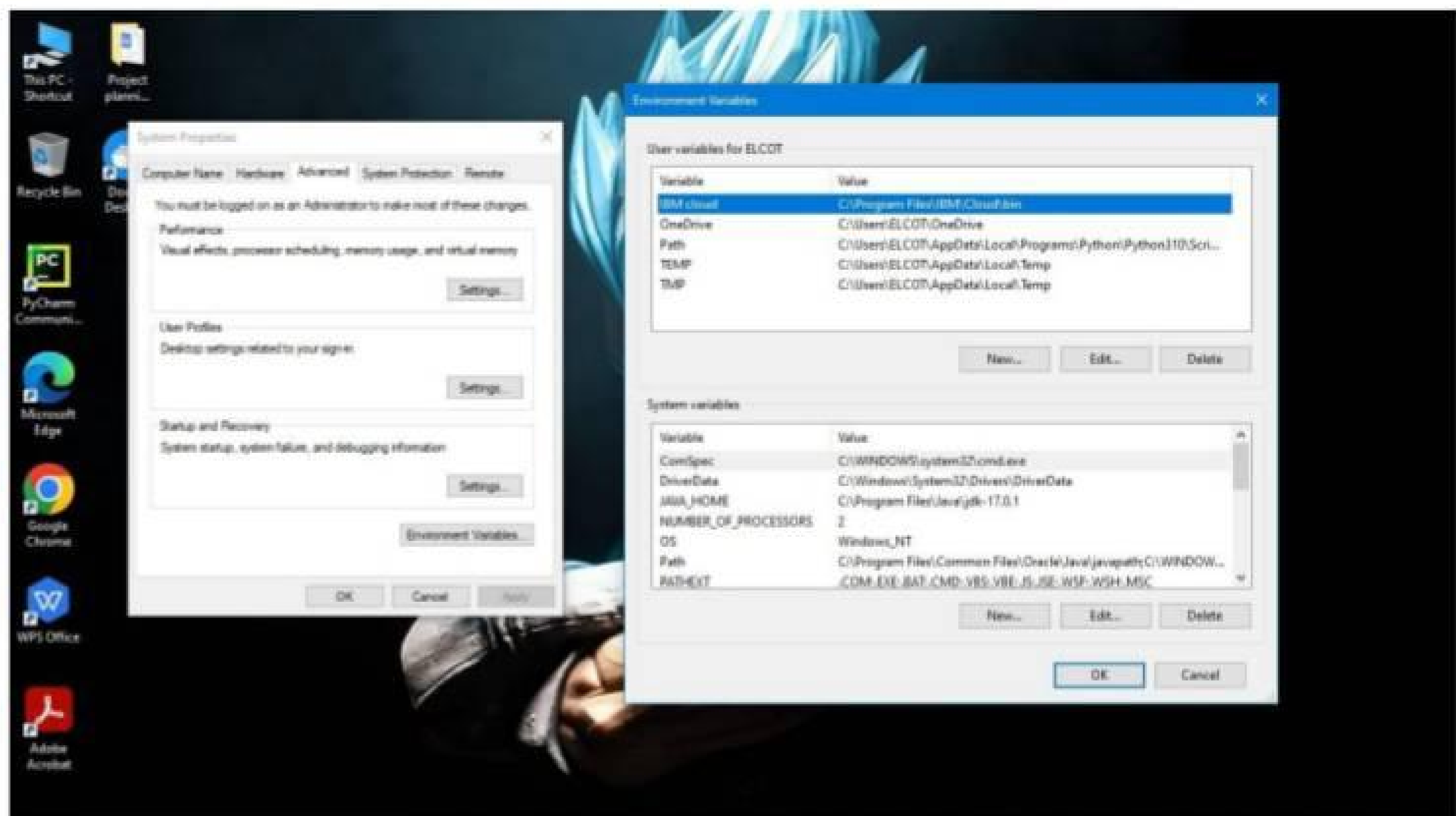


SETTING UP APPLICATION ENVIRONMENT



Step 8:After the installation set environment variable and then open CMD (Windows).Type this command to login in IBM cloud

“ibmcloud login”



SETTING UP APPLICATION ENVIRONMENT



In the variable name, name it as “IBM Cloud” and in variable value the path location of the IBM.

In the variable name,name it as “IBM Cloud” and in variable value the path location of the IBM.

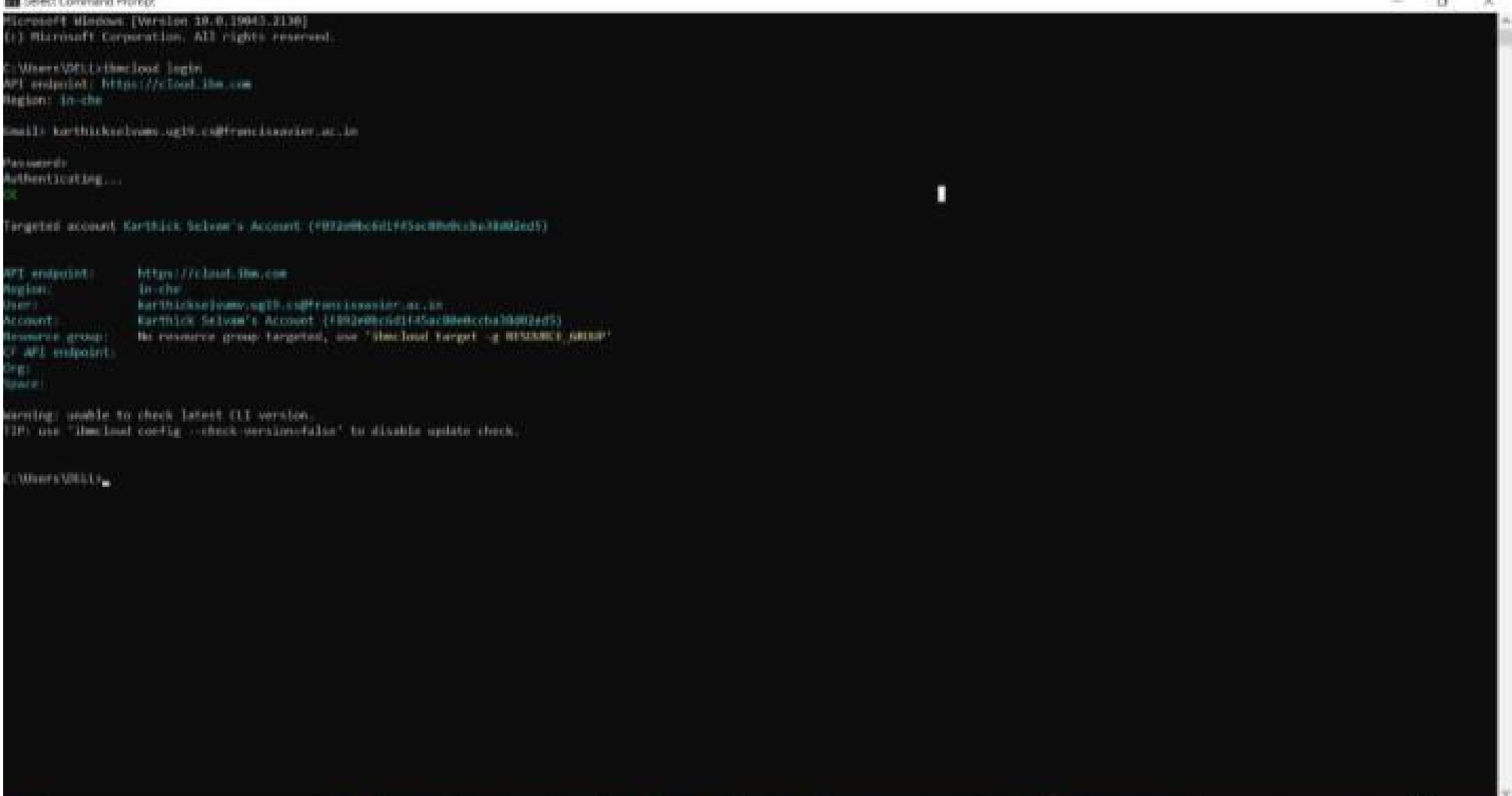
```
Command Prompt - ibmcloud login
Microsoft Windows [Version 10.0.19043.2130]
(c) Microsoft Corporation. All rights reserved.

C:\Users\DELL\ibmcloud login
API endpoint: https://cloud.ibm.com
Region: us-sb

ibmcli>
```

SETTING UP APPLICATION ENVIRONMENT

Step 9: Enter your IBM cloud email id and password ,Then it wil authenticate and signals “OK”.The number of regions will displayed, select one of them for your targeted account.



```
Select Command Prompt
Microsoft Windows [Version 10.0.19043.2130]
(c) Microsoft Corporation. All rights reserved.

C:\Users\DELL>ibmcloud login
API endpoint: https://cloud.ibm.com
Region: in-chc
Email: karthickselvam.sg19.cs@francis Xavier.ac.in
Password:
Authenticating...
OK

Targeted account: Karthick Selvam's Account (f992e0bc6d1f45ac086ccba3d902ed5)

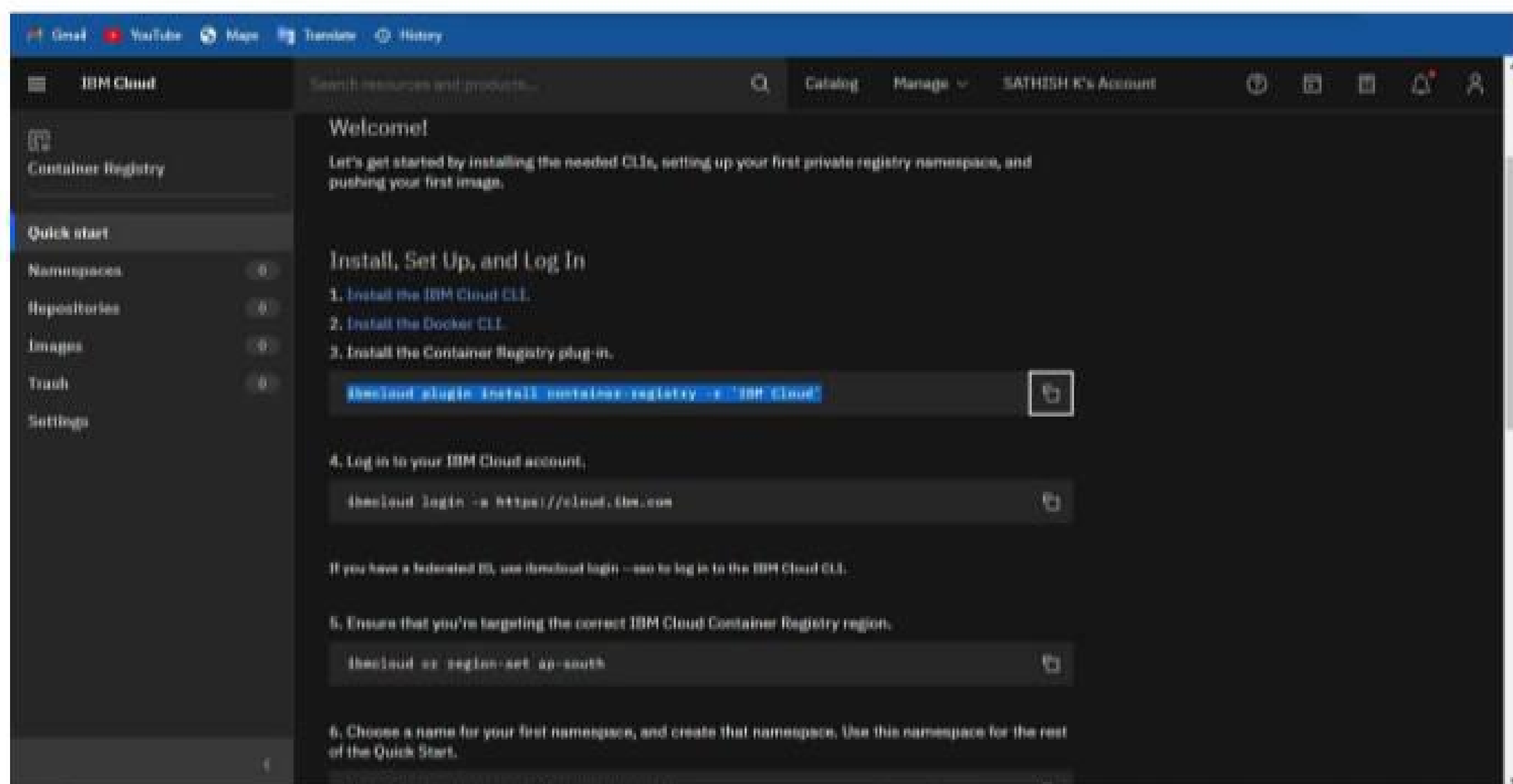
API endpoint: https://cloud.ibm.com
Region: in-chc
User: karthickselvam.sg19.cs@francis Xavier.ac.in
Account: Karthick Selvam's Account (f992e0bc6d1f45ac086ccba3d902ed5)
Resource group: No resource group targeted, use 'ibmcloud target -g RESOURCE_GROUP'
CF API endpoint:
Org:
Space:

Warning: unable to check latest CLI version.
TIP: use 'ibmcloud config --check-version=false' to disable update check.

C:\Users\DELL>
```

Step 10: Then copy the plugin command in your container registry (where the command displayed in your container registry which is opened on web browser) and paste and run it on cmd.

“ibmcloud plugin install container-registry -r”



SETTING UP APPLICATION ENVIRONMENT

```
Command Prompt
targeted account karthick selvan's Account (P93b0b6cd144ba3b6b7ca3a0d2edf)

API endpoint:      https://cloud.ibm.com
Region:            us-chi
User:              karthickselvan.ag29.us@franklinnavier.ac.in
Account:           karthick selvan's Account (P93b0b6cd144ba3b6b7ca3a0d2edf)
Resource group:    No resource group targeted, use 'ibmcloud target -g RESOURCE_GROUP'
? API endpoint:
? g:
? name:

Warning: unable to check latest CLI version.
?P: use 'ibmcloud config --check-version=false' to disable update check.

C:\Users\DELL>ibmcloud plugin install container-registry -v
P93b0b6cd144ba3b6b7ca3a0d2edf
Incorrect usage.

Usage:
  ibmcloud - Install CLI plug-in

SYNOPSIS:
  ibmcloud plugin install (PLUGIN_NAME | [-a, --all]) [-r REPO_NAME] [-v VERSION] [-f] [-q, --quiet]
  ibmcloud plugin install (IDCN-PATH/IDCN-NAME | IDCN | -f) [-q, --quiet]

If no repository is specified, the command uses the official plug-in repository "IBM Cloud".
If installing a single plugin and no version is specified, the command selects the latest available version to install.
If the "-a, --all" flag is specified, the command installs all latest available plugins in the repository.

EXAMPLES:
  ibmcloud plugin install --all
  ibmcloud plugin install --all -r Pythons
  ibmcloud plugin install http://example.com/downloads/my-plugin
  ibmcloud plugin install ~/Downloads/my-plugin
  ibmcloud plugin install plugin-echo
  ibmcloud plugin install plugin-echo -v 1.0.0
  ibmcloud plugin install plugin-echo -r Pythons -v <1.2
  ibmcloud plugin install plugin-echo -v ">0.1, <0.5" -f

OPTIONS:
  -a, --all      Install all latest available plugins in repository
  -r value       Repo name where the plug-in binary is located
  -v value       Version of the plug-in to be installed. Accepts specific semantic version or constraint. Only applicable when installing a single plugin.
  -f            Force installation of plugin(s) without confirmation
  -q, --quiet    Suppress verbose output

C:\Users\DELL>
```

Step 11: Set your region to global . “ibmcloud cr region-set global”

```
Command Prompt
C:\Users\karthick\OneDrive\Documents>ibmcloud cr region-set global

API endpoint: https://cloud.ibm.com
Region: us-south
User: karthick@us.ibm.com
Account: karthick@us.ibm.com
Resource group: No resource group targeted, use 'ibmcloud target -g RESOURCE_GROUP'
CF API endpoint:
API:
Queue:

Warning: unable to check latest CLI version.
TIP: use 'ibmcloud config --check-version-false' to disable update check.

C:\Users\karthick>ibmcloud plugin install container-registry -->
ADDED
Downloaded image.

NOTE:
  install - Install CLI plug-in

USAGE:
  ibmcloud plugin install [PLUGIN_NAME] [-a, --all] [-r REPO_NAME] [-v VERSION] [-f] [-u, --quiet]
  ibmcloud plugin install URL_PATH/VERSION [URL] [-f] [-u, --quiet]

If no repository is specified, the command uses the official plug-in repository 'IBM Cloud'.
If installing a single plugin and no version is specified, the command selects the latest available version to install.
If the '-a, --all' flag is specified, the command installs all latest available plugins in the repository.

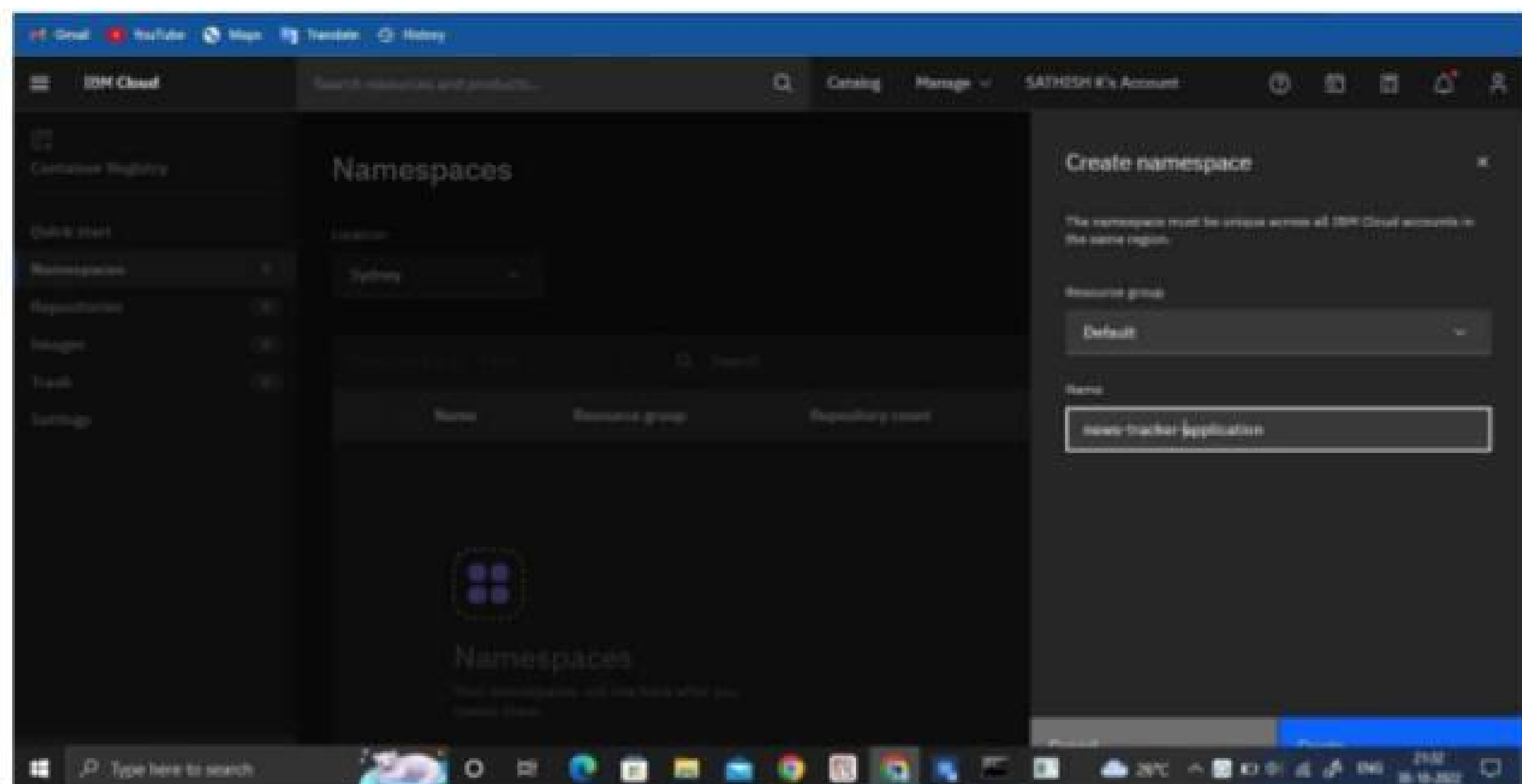
EXAMPLES:
  ibmcloud plugin install --all
  ibmcloud plugin install --all -r MyRepo
  ibmcloud plugin install http://example.com/downloads/my-plugin
  ibmcloud plugin install ~/downloads/my-plugin
  ibmcloud plugin install plugin-echo
  ibmcloud plugin install plugin-echo -v 1.0.0
  ibmcloud plugin install plugin-echo -r MyRepo -v <1.1
  ibmcloud plugin install plugin-echo -r "v0.1, v0.2" -f

OPTIONS:
  -a, --all      Install all latest available plugins in repository
  -r value       Repo name where the plug-in binary is located
  -v value       Version of the plug-in to be installed. Accepts specific semantic version or constraint. Only applicable when installing a single plugin.
  -f            Force installation of plugin(s) without confirmation
  -u, --quiet    Suppress verbose output

C:\Users\karthick>
```

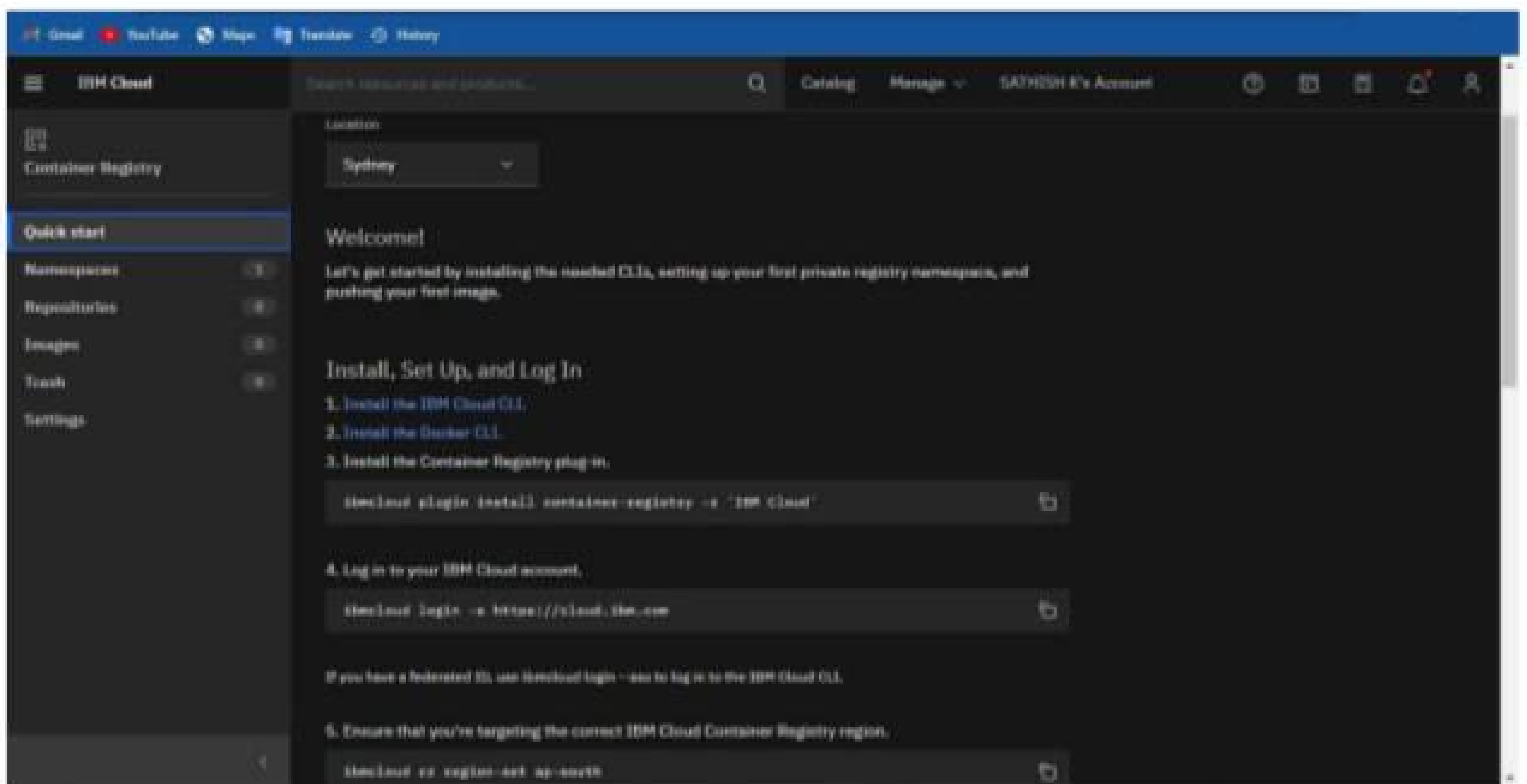
SETTING UP APPLICATION ENVIRONMENT

Step 12: Create namespace in your container registry



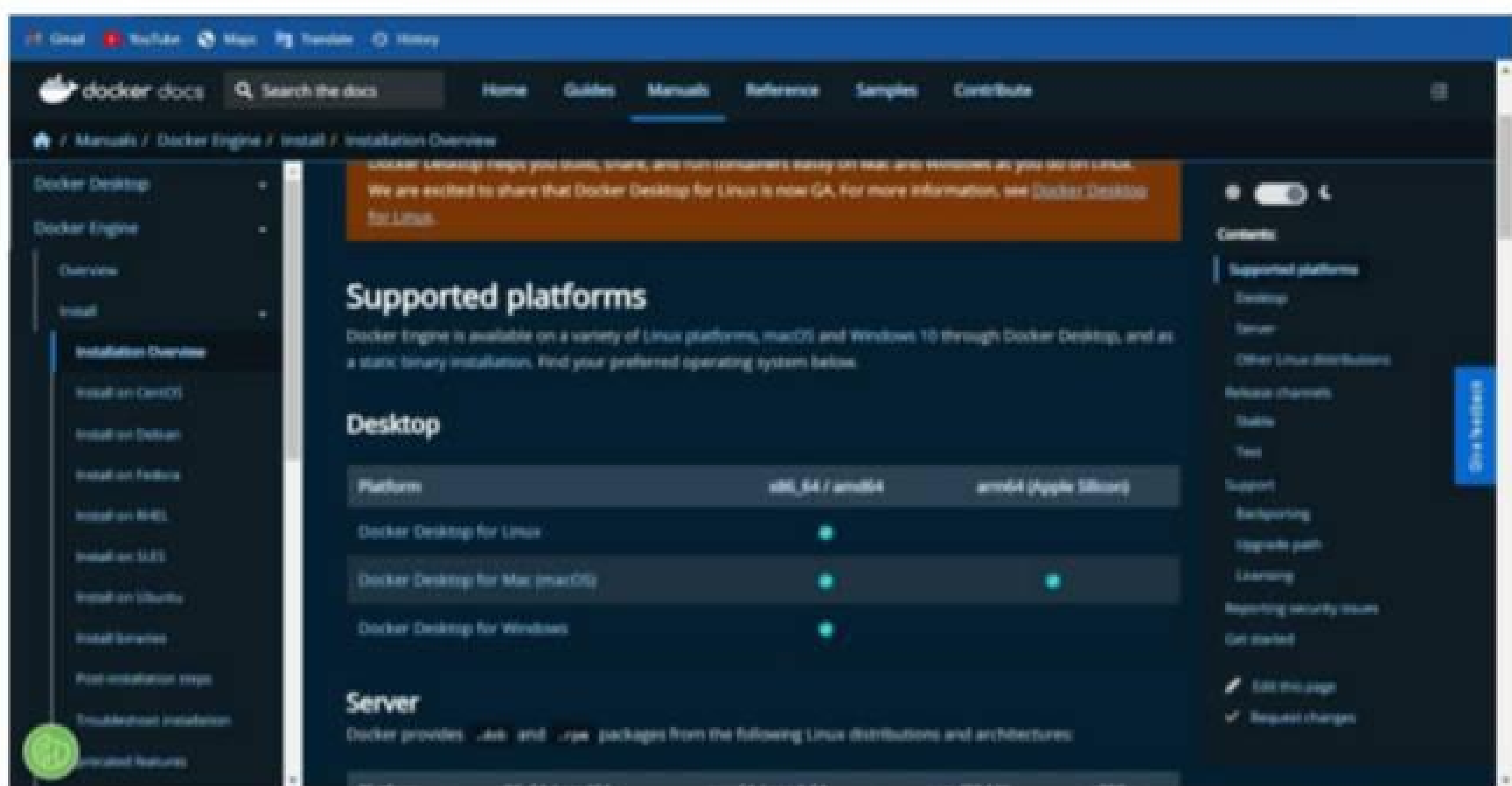
3. DOCKER CLI INSTALLATION:

Step1:Open container registry in ibm cloud and click on Install Docker CLI.

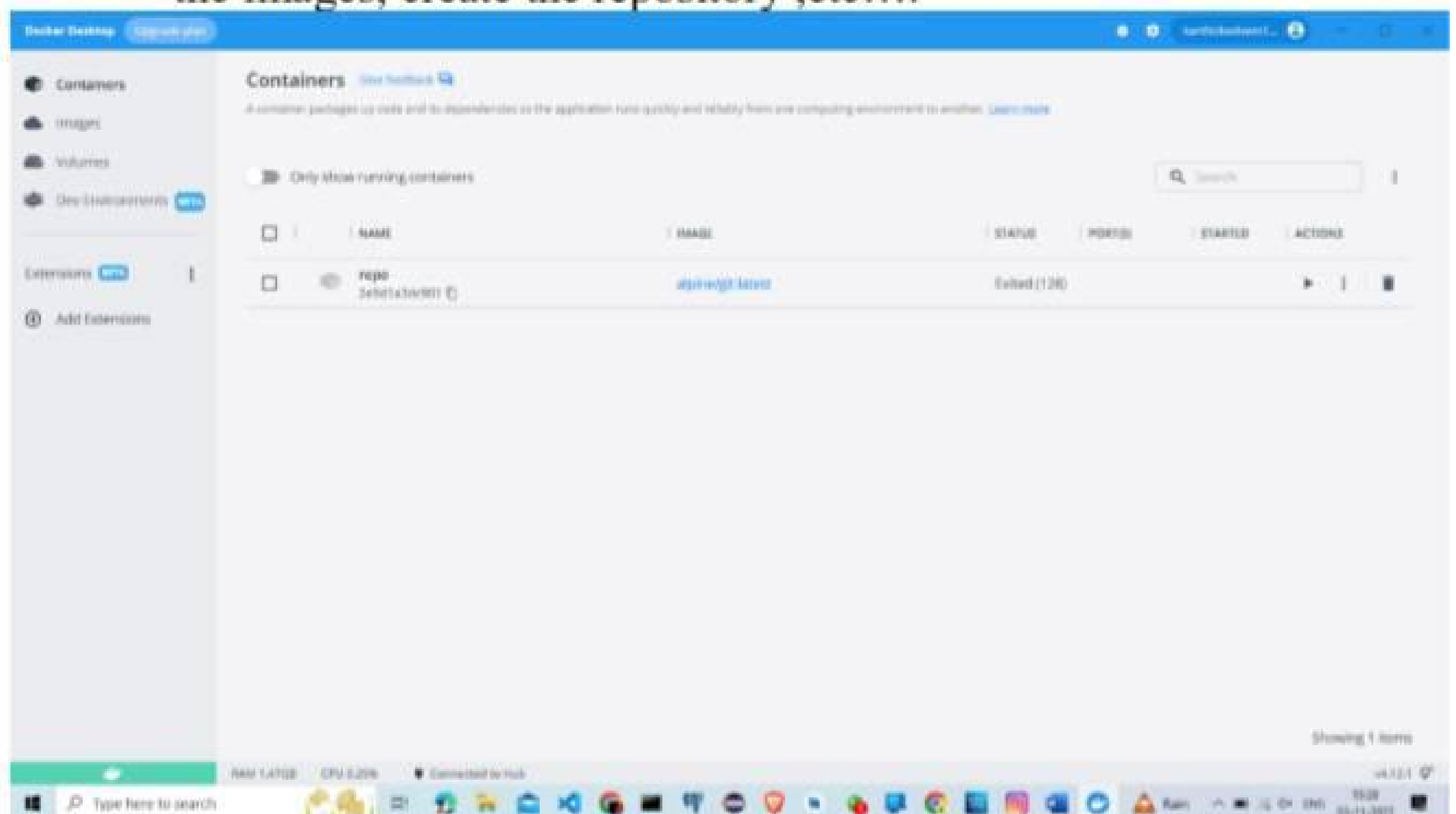


SETTING UP APPLICATION ENVIRONMENT

Step 2: Then, Click on required installer for your specified system and download it.



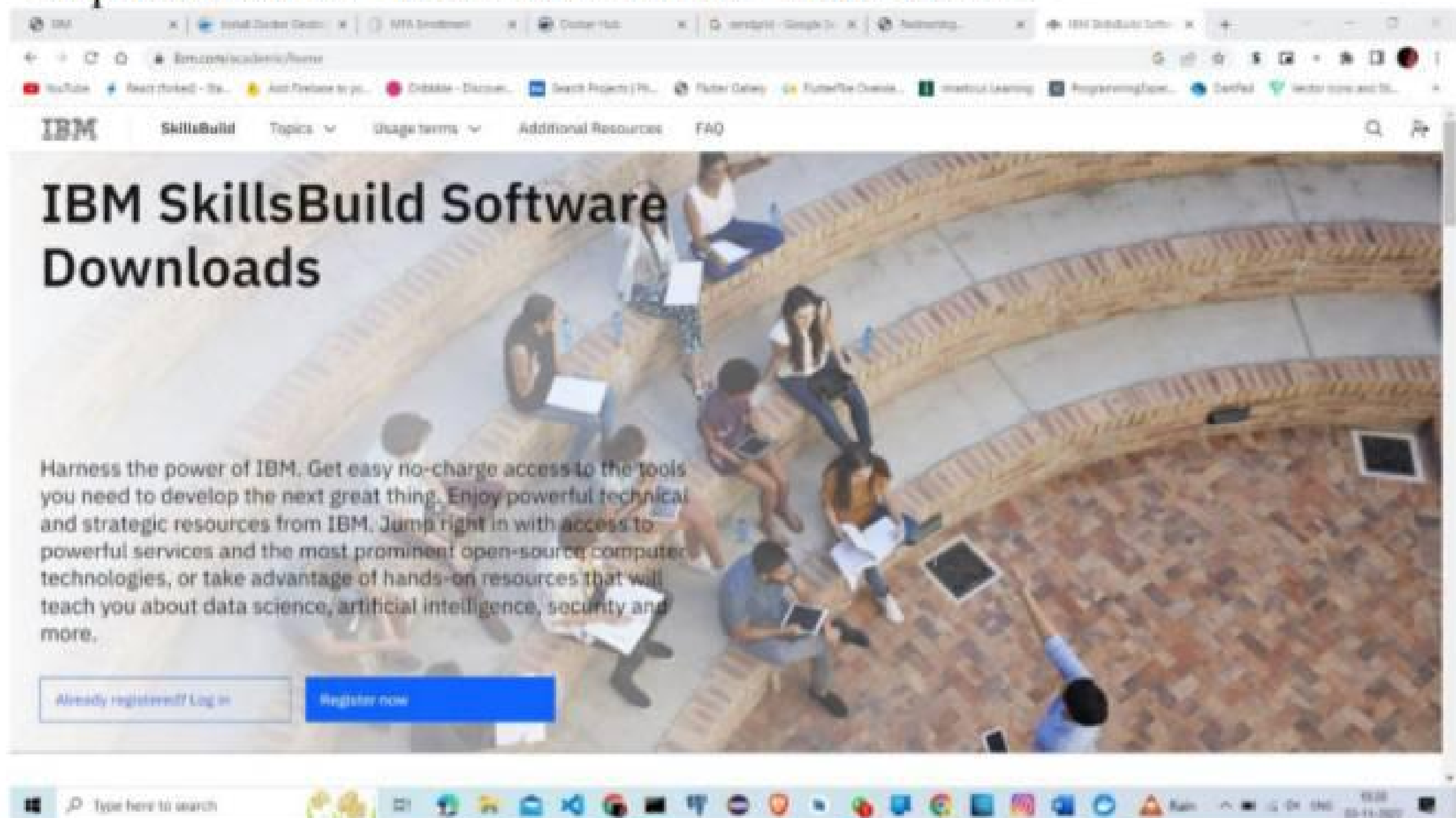
Step 3:After the setup download , run the setup and then open it and push the images, create the repository ,etc....



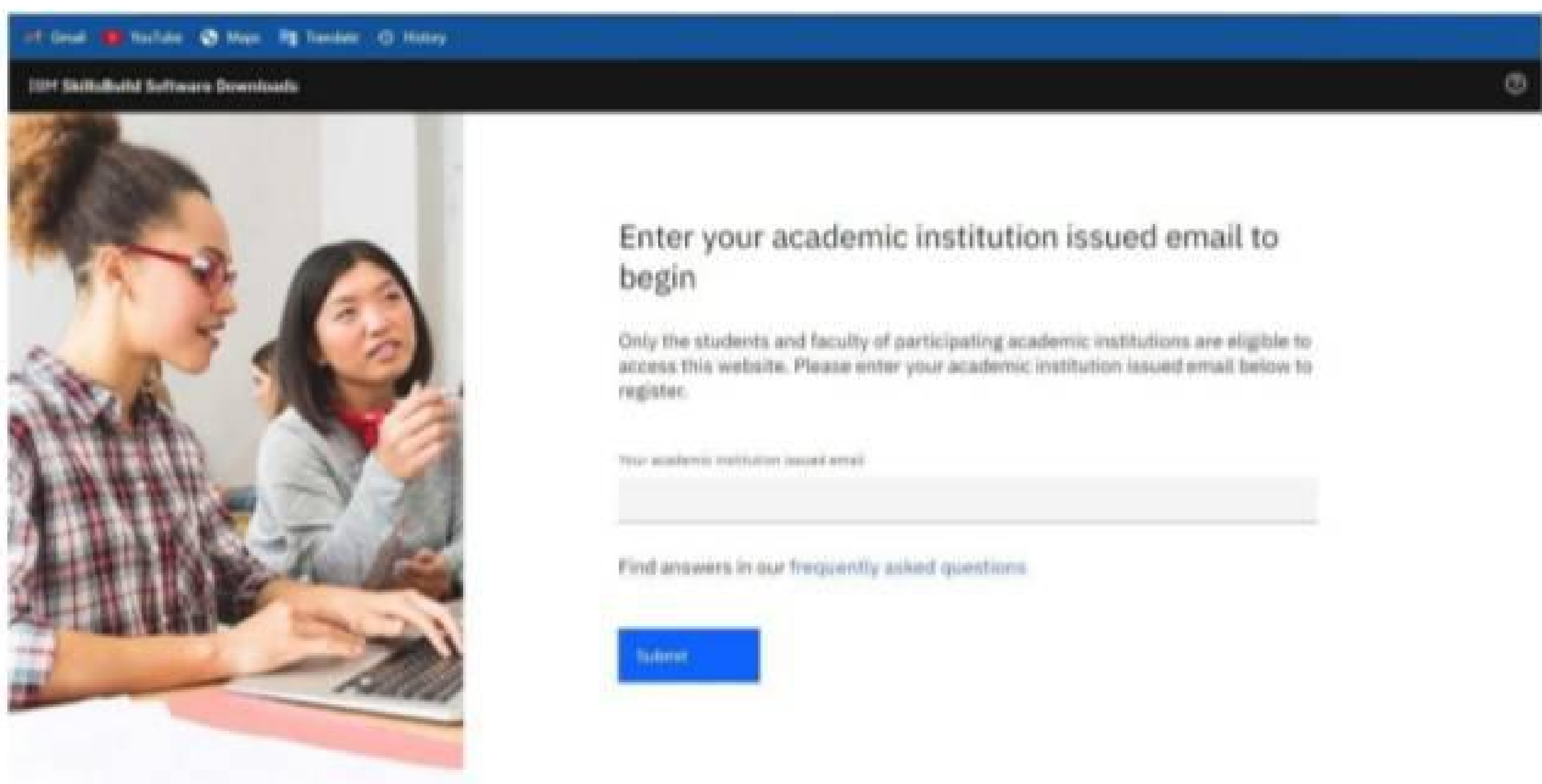
SETTING UP APPLICATION ENVIRONMENT

4. IBM CLOUD ACCOUNT CREATION:

Step 1: Search for “ibm.com/academic” in the browser



Step 2: Enter the mail issued by the academic institution and follow the procedure for entering the details which is provided as video link in your IBM profile.



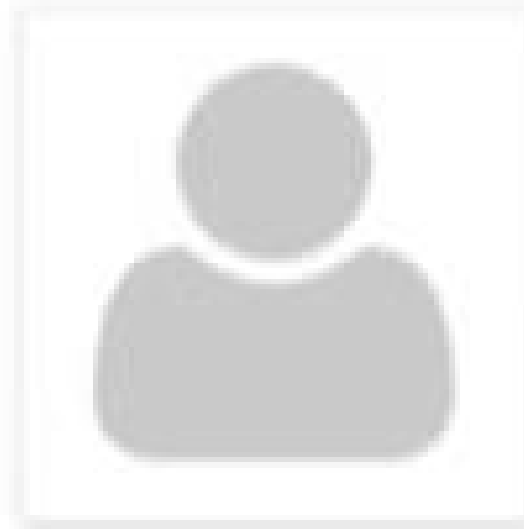
Enter your academic institution issued email to begin

Only the students and faculty of participating academic institutions are eligible to access this website. Please enter your academic institution issued email below to register.

Your academic institution issued email

[Find answers in our frequently asked questions](#)

- Profile
- Dashboard
- Projects
- Change Password
- Support
- Orientation Sessions
- Training Calendar
- Assignment & Quiz
- Ask Me Anything Sessions



Last Login : 2022-11-10
08:57:05

KASTHURI G

ROLLNO : 723619106007

EMAIL : Kasthurig106@gmail.com

MOBILE NUMBER : 9361643039

GENDER : F

DATE OF BIRTH : 10-06-2002

DEGREE : Bachelor of Engineering/Technology

BRANCH : Electronics and Communication Engineering

YEAR OF PASSING : 2023

COLLEGE : POLLACHI INSTITUTE OF ENGINEERING AND TECHNOLOGY

ALTERNATE EMAIL :

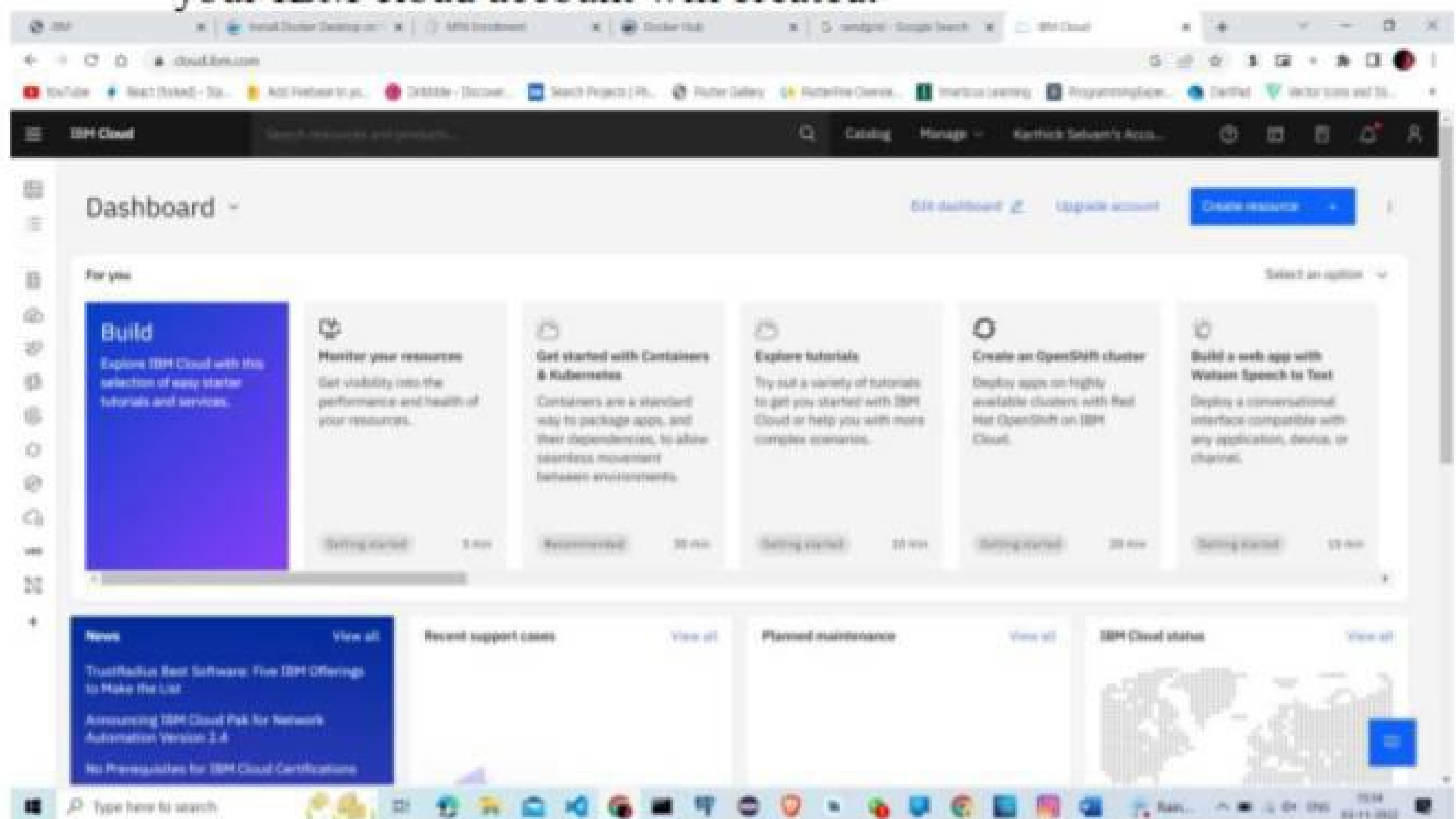
SI EMAIL : 723619106007@smartinternz.com

SI PASSWORD : PNTIBMAk52

WEBMAIL : <https://sg2plmcpnl496936.prod.sin2.secureserver.net:2096/>

REFERENCE VIDEO : <https://vimeo.com/742609168/1824d26a5b>

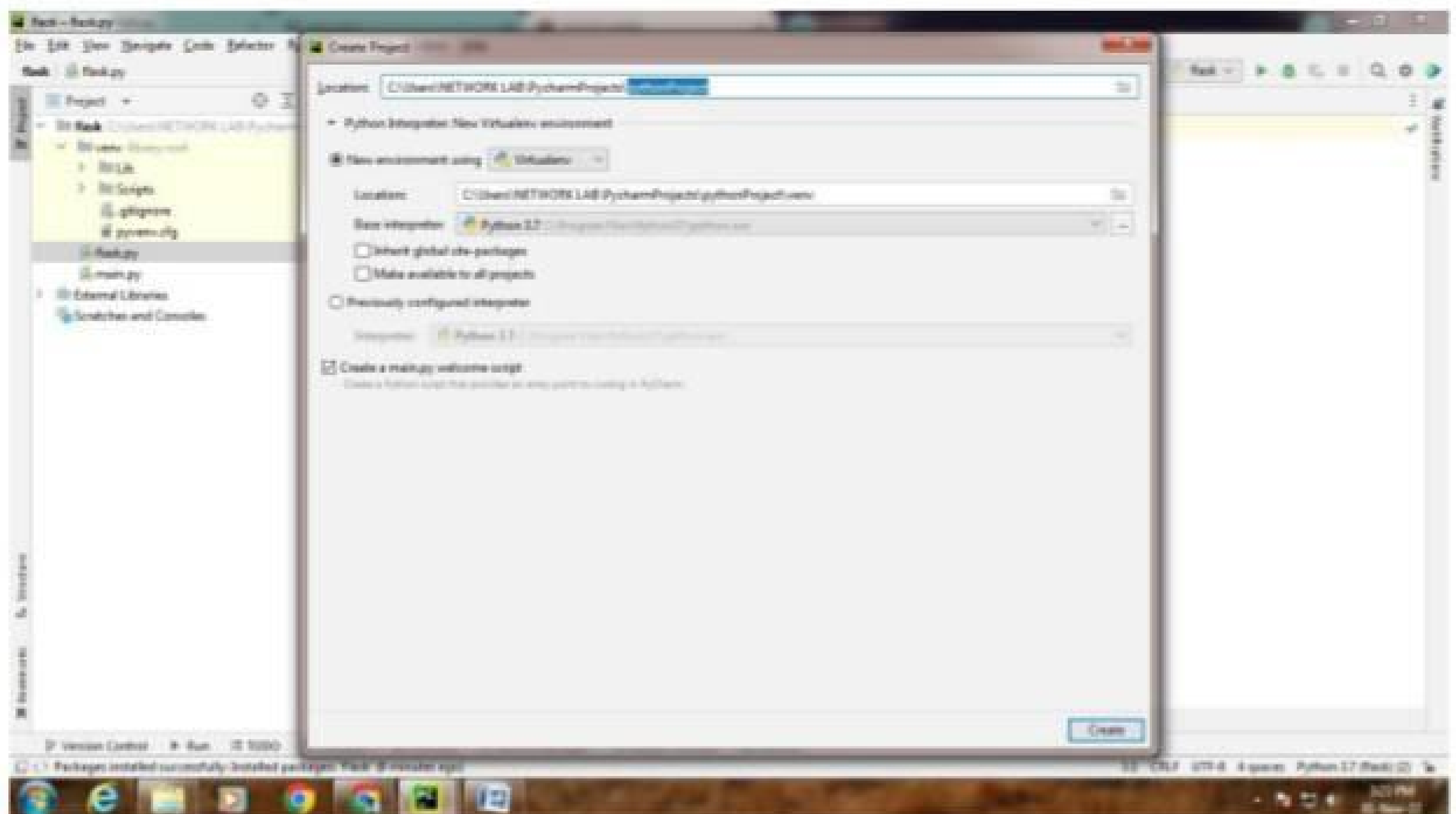
Step 3: After following the procedure that is given in reference video, your IBM cloud account will be created.



SETTING UP APPLICATION ENVIRONMENT

5.CREATING A FLASK PROJECT:

Step1:Open pycharm in your desktop and create new project folder



Step 2: Enter the following code to create the flask project

```
from flask import Flask
```

```
app = Flask(__name__)
```

```
@app.route("/")
```

```
def hello():
```

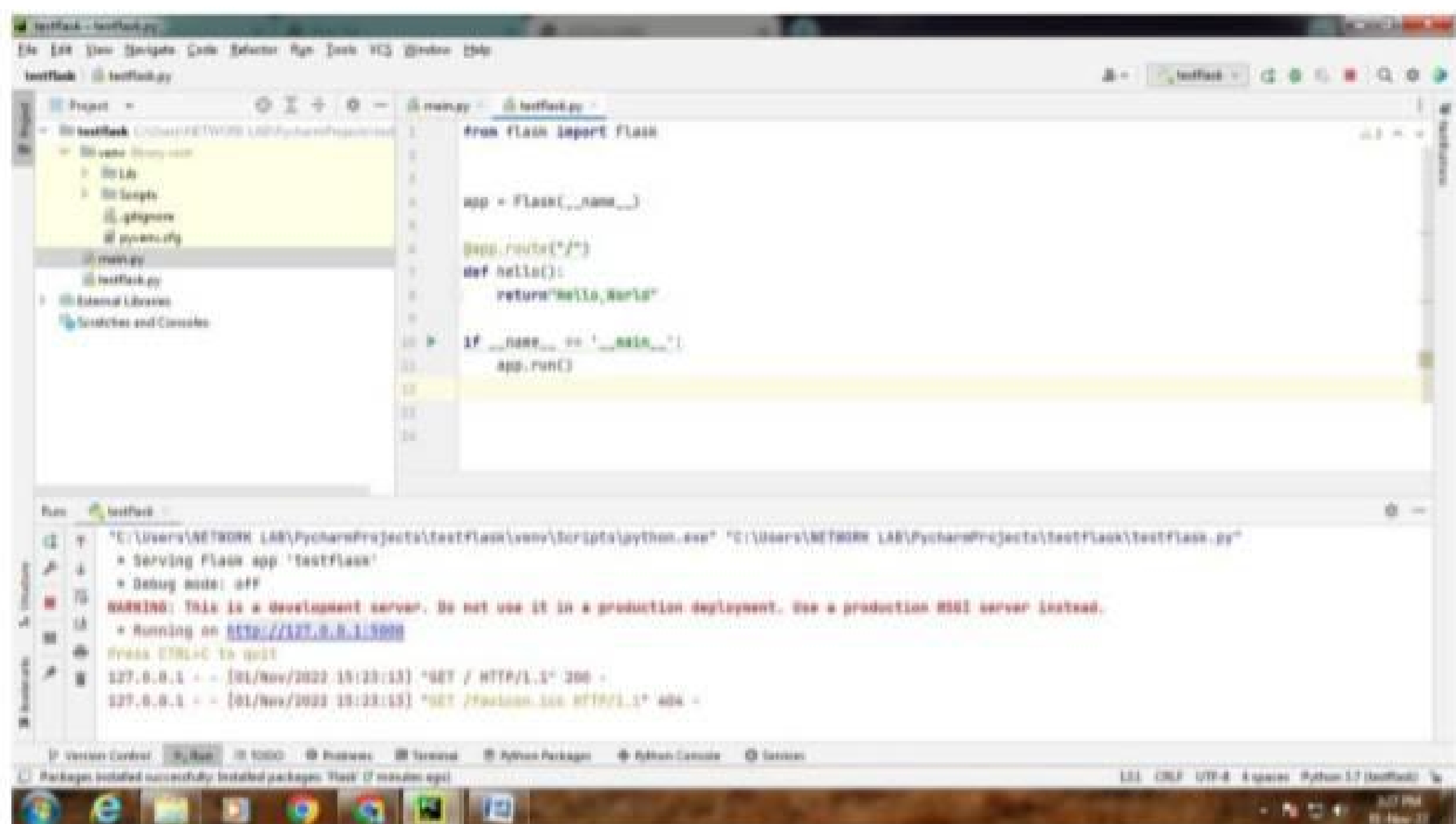
```
    return "Hello, World"
```

```
if __name__ == '__main__':
```

```
    app.run()
```

SETTING UP APPLICATION ENVIRONMENT

Step 3: Then run the code, it will show website link in terminal.



```
testflask.py
1 from flask import Flask
2
3 app = Flask(__name__)
4
5 @app.route("/")
6 def hello():
7     return "Hello, World!"
8
9 if __name__ == '__main__':
10     app.run()
```

```
Run testflask.py
"C:\Users\NETWORK LAB\PycharmProjects\testflask\venv\Scripts\python.exe" "C:\Users\NETWORK LAB\PycharmProjects\testflask\testflask.py"
* Serving Flask app 'testflask'
* Debug mode: off
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on http://127.0.0.1:5000
Press CTRL+C to quit
127.0.0.1 - - [01/Nov/2022 15:23:13] "GET / HTTP/1.1" 200 -
127.0.0.1 - - [01/Nov/2022 15:23:13] "GET /testflask.py HTTP/1.1" 404 -
```



Step 4:By clicking the link in terminal, it will shows "Hello World" in the browser page