

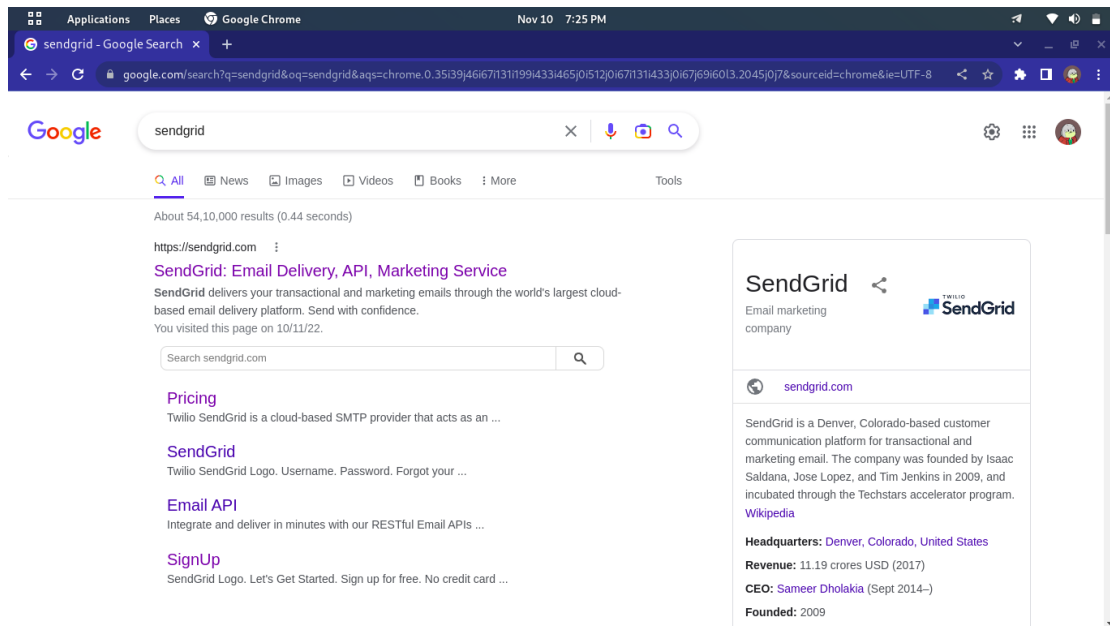
SETTING UP APPLICATION ENVIRONMENT

Team Id: PNT2022TMID41666

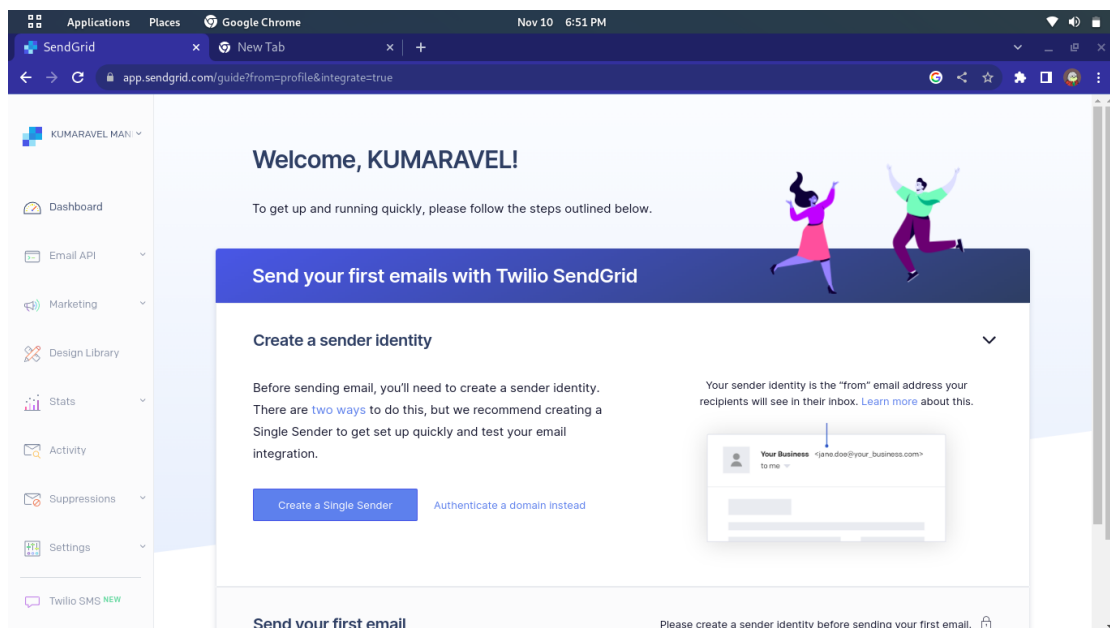
Team Leader: KUMARAVEL M

1. SENDGRID ACCOUNT CREATION:

Step1: Search for the sendgrid <https://sendgrid.com/>

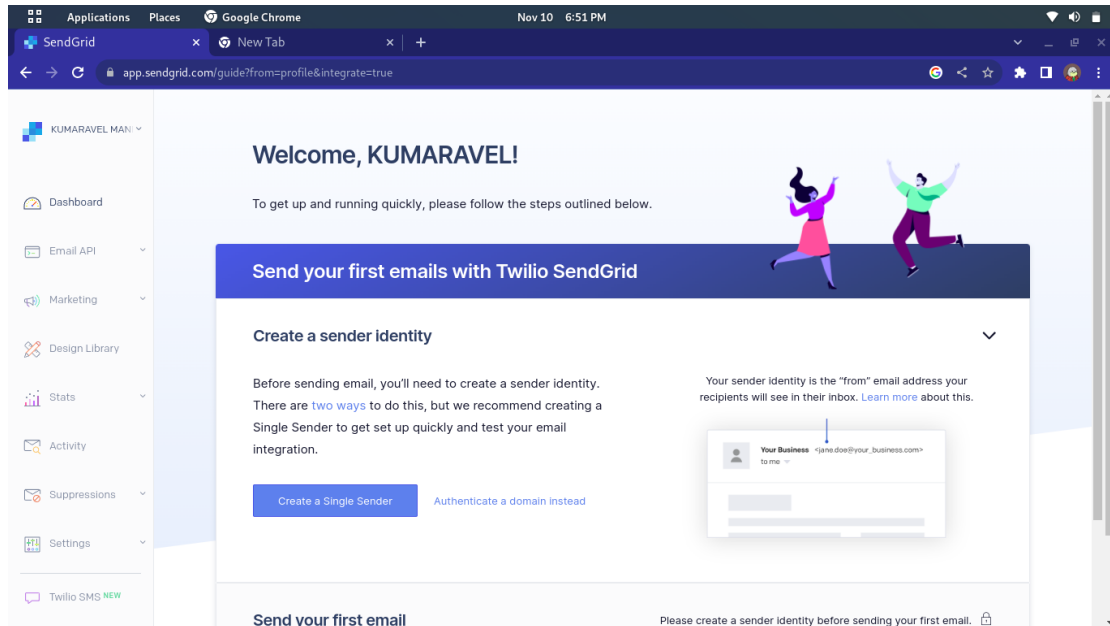


Step 2: Registering new account

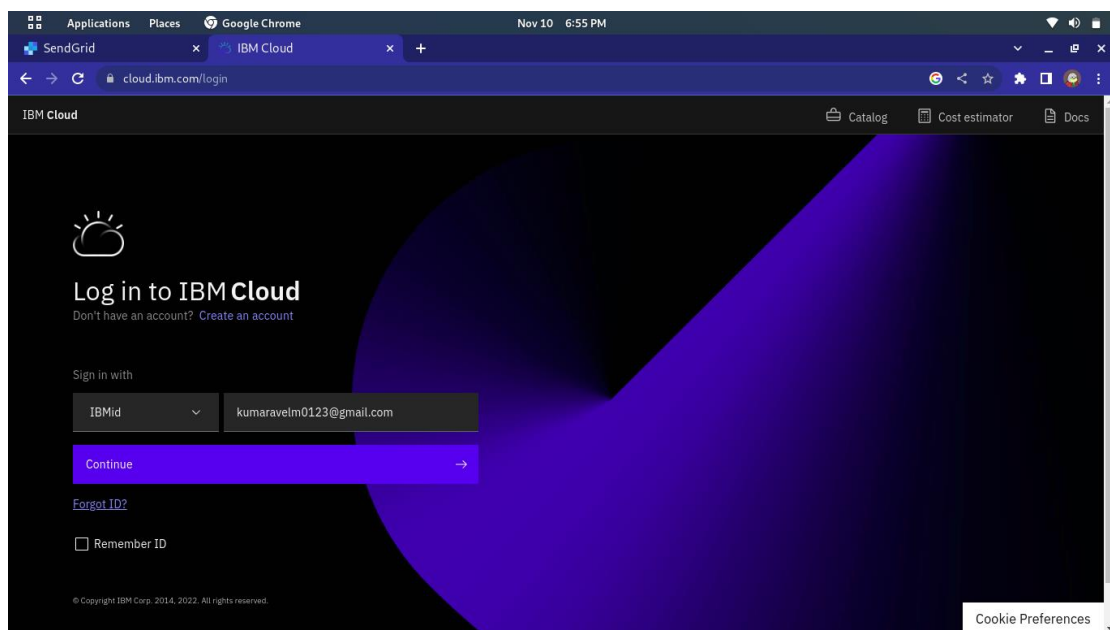


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Step 3: Sendgrid account created

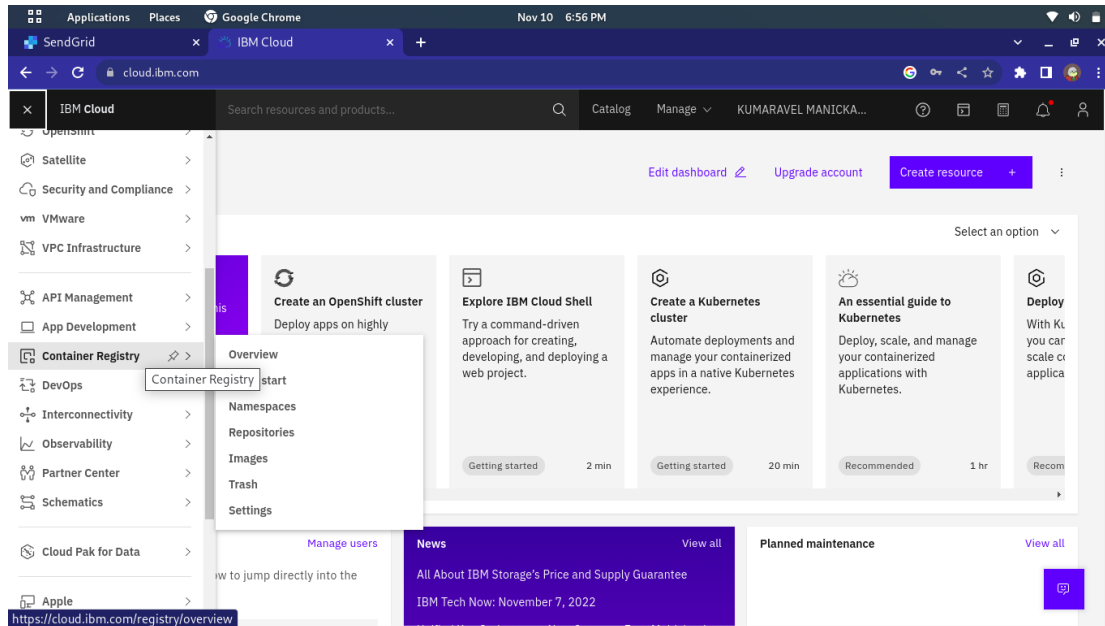


2. IBM CLOUD CLI INSTALLATION: Step1: Log in to the IBM cloud

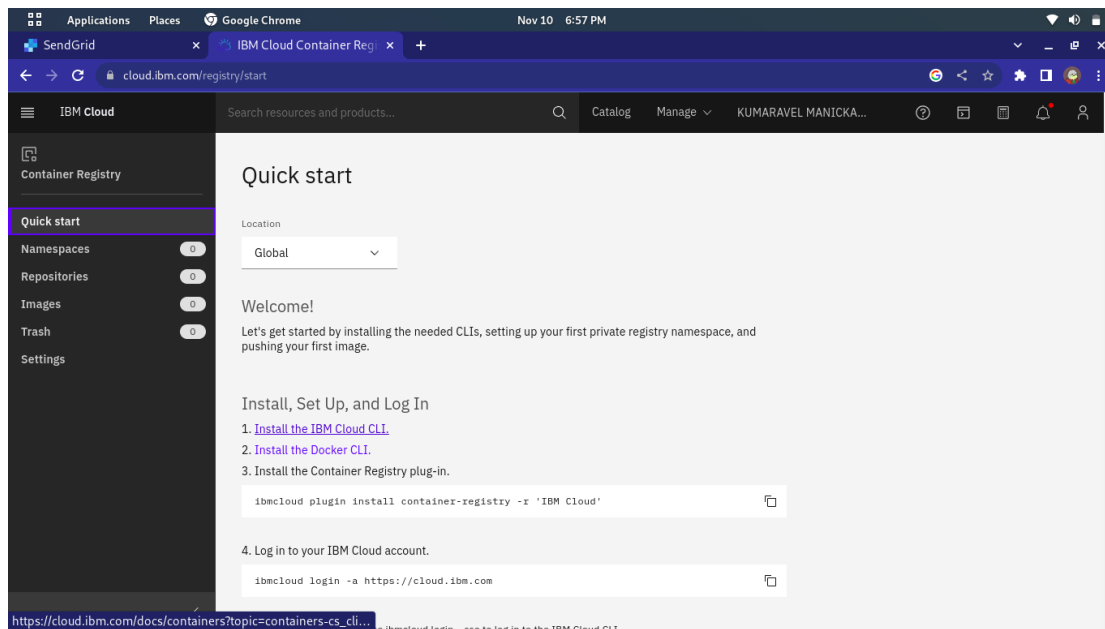


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Step 2: Select container registry



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



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Step 4: Click on IBM Cloud CLI

The screenshot shows the IBM Cloud documentation page for "Setting up the CLI". The browser address bar shows the URL `cloud.ibm.com/docs/containers?topic=containers-cs_cli_install`. The page title is "Setting up the CLI". The left sidebar shows the "Kubernetes service" section with a sub-menu "How to" containing "Installing the CLI and API". The main content area has a heading "Installing the IBM Cloud CLI and plug-ins" and a tip: "If you want to use the IBM Cloud console instead, you can run CLI commands directly from your web browser in the IBM Cloud Shell." The right sidebar shows a table of contents for the page.

Setting up the CLI

You can use the IBM Cloud® Kubernetes Service CLI to create and manage your Kubernetes clusters. To use the API, see [Setting up the API](#).

Installing the IBM Cloud CLI and plug-ins

Install the required CLIs to create and manage your Kubernetes clusters in IBM Cloud Kubernetes Service, and to deploy containerized apps to your cluster.

This task includes the information for installing these CLIs and plug-ins:

- IBM Cloud CLI ([ibmcloud](#))
- IBM Cloud Kubernetes Service plug-in ([ibmcloud ks](#))
- IBM Cloud Container Registry plug-in ([ibmcloud cr](#))
- IBM Cloud Kubernetes Service observability plug-in ([ibmcloud ob](#))

☒ **Tip:** If you want to use the IBM Cloud console instead, you can run CLI commands directly from your web browser in the [IBM Cloud Shell](#).

To install the CLIs:

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

The screenshot shows the IBM Cloud documentation page for "Installing the stand-alone IBM Cloud CLI". The browser address bar shows the URL `cloud.ibm.com/docs/cli?topic=ccli-install-ibmcloud-cli`. The page title is "Installing the stand-alone IBM Cloud CLI". The left sidebar shows the "IBM Cloud CLI" section with a sub-menu "How to" containing "Installing the stand-alone IBM Cloud CLI". The main content area has a heading "Before you begin" and a section "Installing with an installer". The right sidebar shows a table of contents for the page.

Installing the stand-alone IBM Cloud CLI

Install the stand-alone IBM Cloud CLI; you get only the CLI tool without any recommended plug-ins or tools.

☒ **Tip:** If you want to install both the latest IBM Cloud CLI and other recommended plug-ins and tools for developing applications for IBM Cloud, see [Getting started with the IBM Cloud CLI](#) and [Installing the tools and plug-ins manually](#).

Before you begin

If you need to use a 32-bit version, or a previous version other than the latest for IBM Cloud Dedicated environments, see [IBM Cloud CLI releases](#).

Installing with an installer

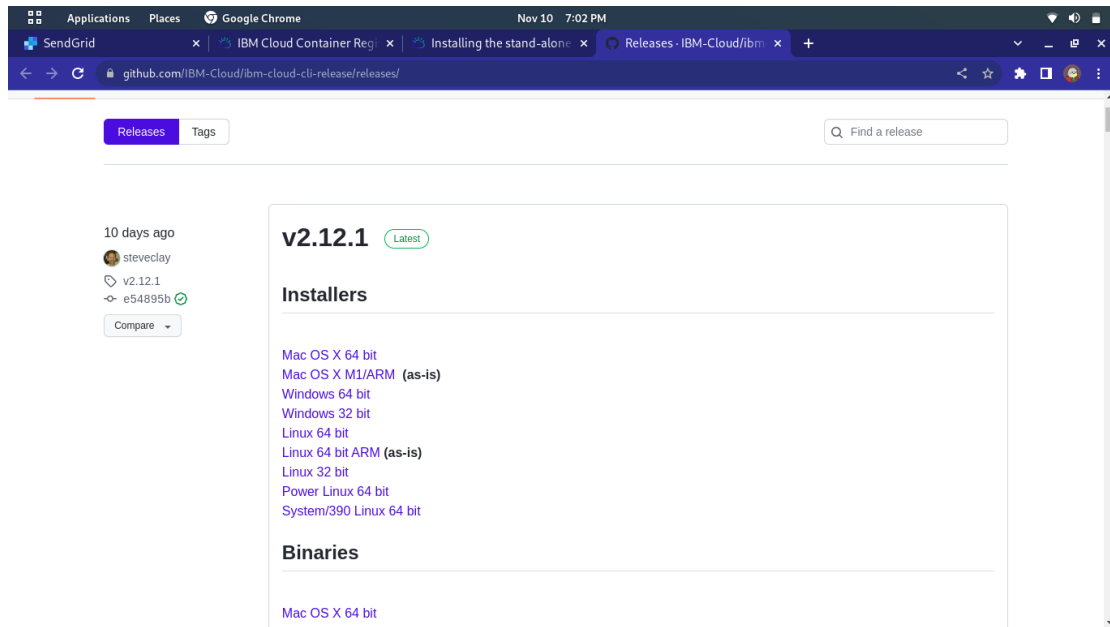
Use the following steps to install the latest stand-alone IBM Cloud CLI:

- 1 Use a browser to access the official [ibm-cloud-cli-releases](#) GitHub repository, and **select** the installer of your OS to begin the download. The following operating systems are supported: macOS X 64-bit, Windows™ 64-bit, Linux™ x86 64-bit, and Linux™ LE 64-bit (ppc64le).
- 2 Run the installer:
 - For Mac and Windows™, run the installer.
 - For Linux™, extract the package and run the `install` script.
- 3 Log in to IBM Cloud:

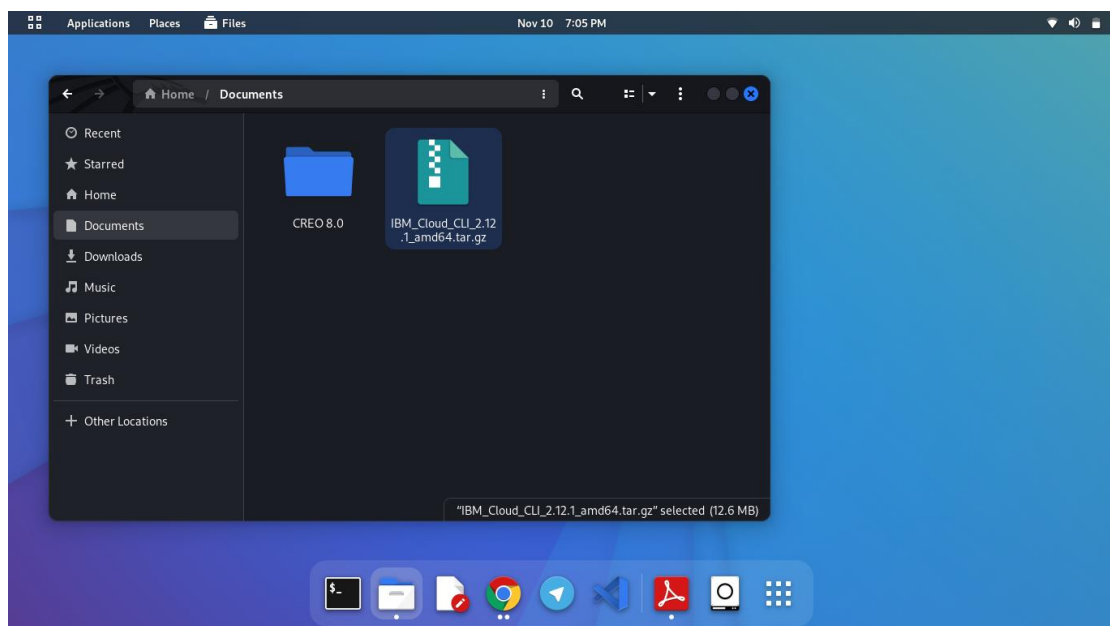
<https://github.com/IBM-Cloud/ibm-cloud-cli-release/releases/> `ud login`

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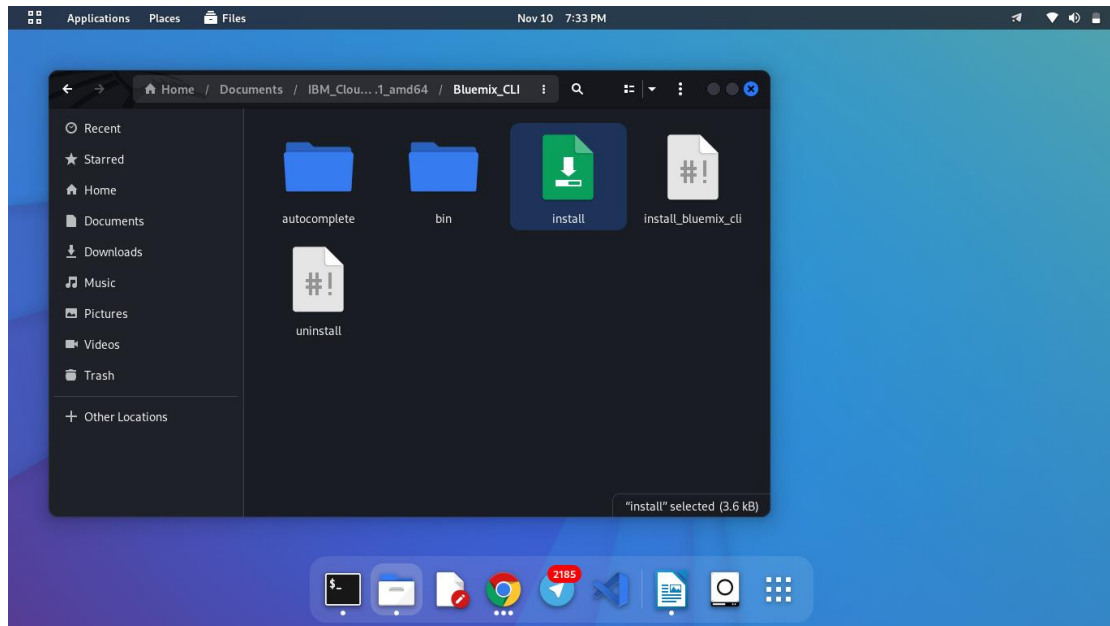
Step 6: After that, the github page will open and download the IBM CLI installer by selecting as per your system required installer.



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

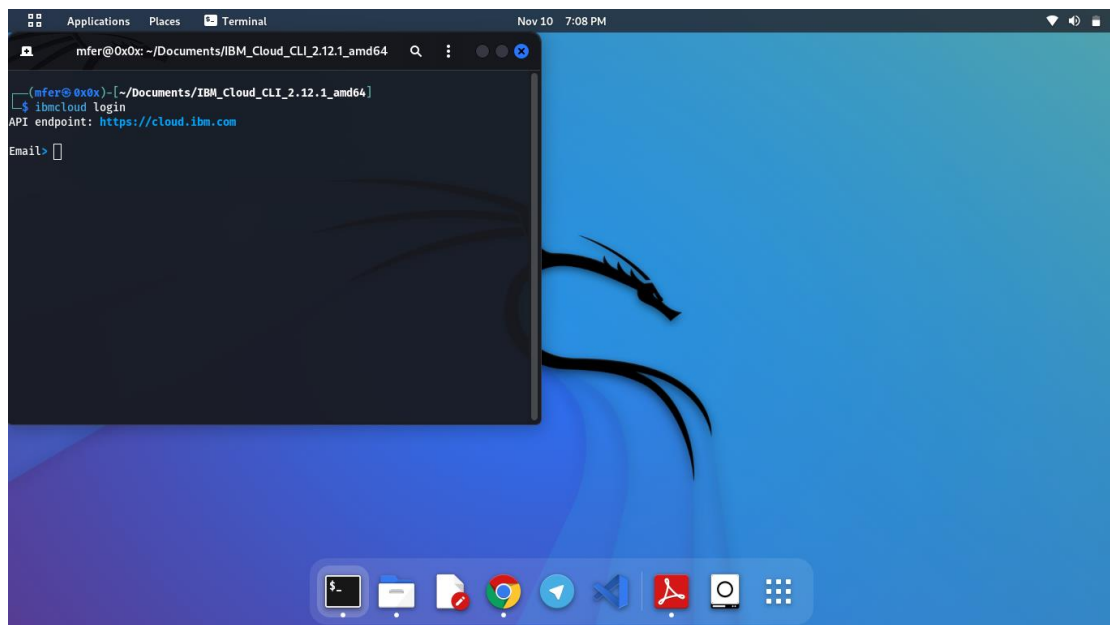


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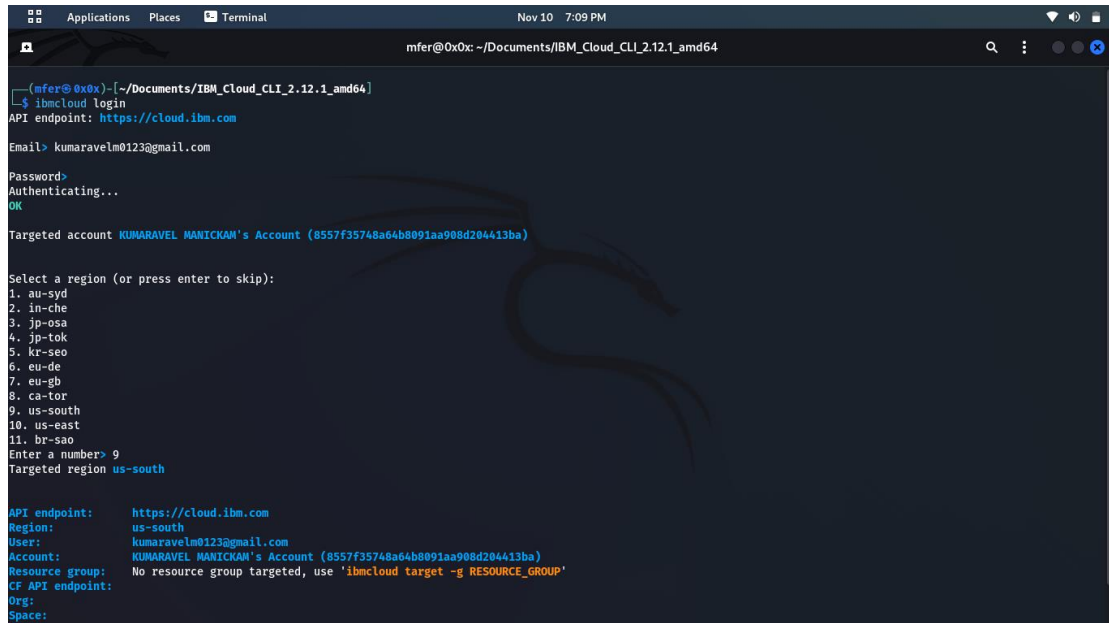
Step 8: After the installation set environment variable and then open terminal(Linux). Type this command to login in IBM cloud

“ibmcloud login”



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

A terminal window titled 'mfer@0x0c: ~/Documents/IBM_Cloud_CLI_2.12.1_amd64' showing the execution of 'ibmcloud login'. The user enters their email 'kumaravelm0123@gmail.com' and a password. The terminal displays 'Authenticating...' followed by 'OK'. It then shows the 'Targeted account KUMARAVEL MANICKAM's Account (8557f35748a64b8091aa908d284413ba)'. A list of regions is shown, and the user selects '9' for 'us-south'. The terminal then displays the 'API endpoint: https://cloud.ibm.com', 'Region: us-south', 'User: kumaravelm0123@gmail.com', 'Account: KUMARAVEL MANICKAM's Account (8557f35748a64b8091aa908d284413ba)', 'Resource group: No resource group targeted, use 'ibmcloud target -g RESOURCE_GROUP'', 'CF API endpoint:', 'Org:', and 'Space:'.

```
mfer@0x0c: ~/Documents/IBM_Cloud_CLI_2.12.1_amd64
$ ibmcloud login
API endpoint: https://cloud.ibm.com

Email> kumaravelm0123@gmail.com

Password>
Authenticating...
OK

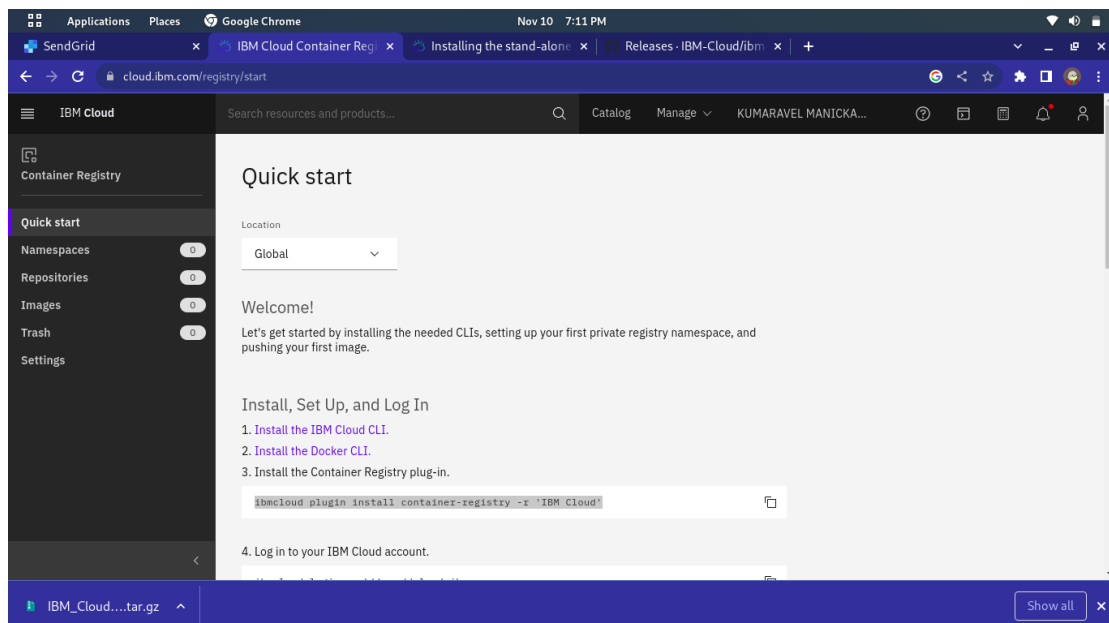
Targeted account KUMARAVEL MANICKAM's Account (8557f35748a64b8091aa908d284413ba)

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> 9
Targeted region us-south

API endpoint: https://cloud.ibm.com
Region: us-south
User: kumaravelm0123@gmail.com
Account: KUMARAVEL MANICKAM's Account (8557f35748a64b8091aa908d284413ba)
Resource group: No resource group targeted, use 'ibmcloud target -g RESOURCE_GROUP'
CF API endpoint:
Org:
Space:
```

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”



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```
Applications Places Terminal Nov 10 7:11 PM
mfer@0x0c: ~/Documents/IBM_Cloud_CLI_2.12.1_amd64

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> 9
Targeted region us-south

API endpoint: https://cloud.ibm.com
Region: us-south
User: kumaravelm0123@gmail.com
Account: KUMARAVEL MANICKAM's Account (8557f35748a64b8091aa908d204413ba)
Resource group: No resource group targeted, use 'ibmcloud target -g RESOURCE_GROUP'
CF API endpoint:
Org:
Space:

Quick start

Tutorial, Set Up, and Log In

mfer@0x0c:~/Documents/IBM_Cloud_CLI_2.12.1_amd64
$ ibmcloud plugin install container-registry -t 'IBM Cloud'
Looking up 'container-registry' from repository 'IBM Cloud'...
Plug-in 'container-registry[cr] 1.0.2' found in repository 'IBM Cloud'
Attempting to download the binary file...
11.69 MiB / 11.69 MiB [=====] 100.00% 4s
12255232 bytes downloaded
Installing binary...
OK
Plug-in 'container-registry 1.0.2' was successfully installed into /home/mfer/.bluemix/plugins/container-registry. Use 'ibmcloud plugin show container-registry' to show its details.

mfer@0x0c:~/Documents/IBM_Cloud_CLI_2.12.1_amd64
$
```

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

```
Applications Places Terminal Nov 10 7:12 PM
mfer@0x0c: ~/Documents/IBM_Cloud_CLI_2.12.1_amd64

7. eu-gb
8. ca-tor
9. us-south
10. us-east
11. br-sao
Enter a number> 9
Targeted region us-south

API endpoint: https://cloud.ibm.com
Region: us-south
User: kumaravelm0123@gmail.com
Account: KUMARAVEL MANICKAM's Account (8557f35748a64b8091aa908d204413ba)
Resource group: No resource group targeted, use 'ibmcloud target -g RESOURCE_GROUP'
CF API endpoint:
Org:
Space:

Quick start

Tutorial, Set Up, and Log In

mfer@0x0c:~/Documents/IBM_Cloud_CLI_2.12.1_amd64
$ ibmcloud plugin install container-registry -t 'IBM Cloud'
Looking up 'container-registry' from repository 'IBM Cloud'...
Plug-in 'container-registry[cr] 1.0.2' found in repository 'IBM Cloud'
Attempting to download the binary file...
11.69 MiB / 11.69 MiB [=====] 100.00% 4s
12255232 bytes downloaded
Installing binary...
OK
Plug-in 'container-registry 1.0.2' was successfully installed into /home/mfer/.bluemix/plugins/container-registry. Use 'ibmcloud plugin show container-registry' to show its details.

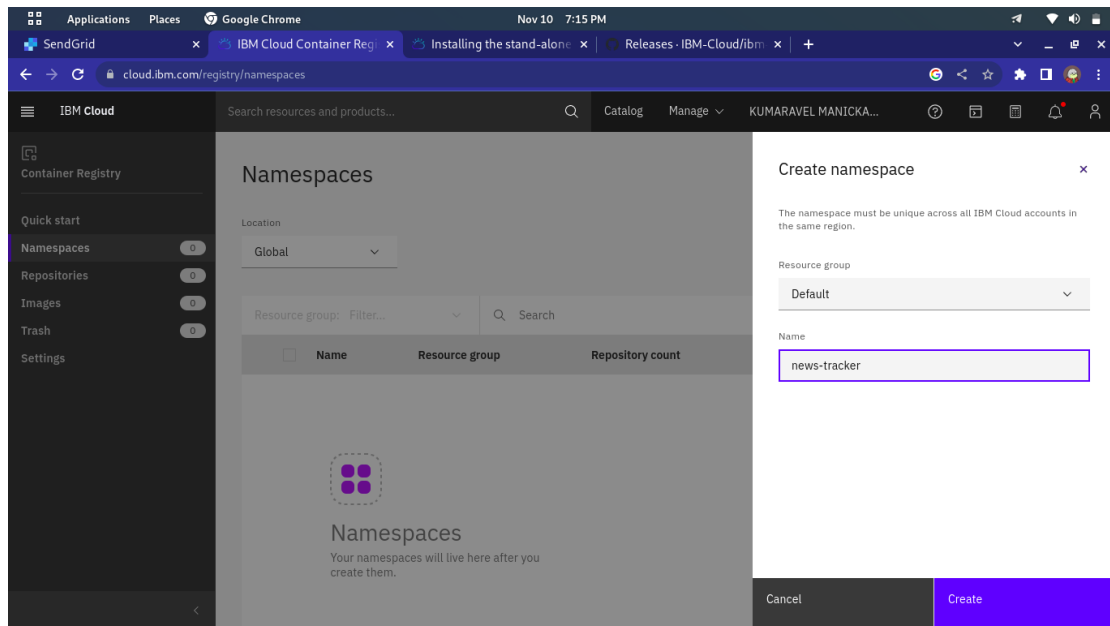
mfer@0x0c:~/Documents/IBM_Cloud_CLI_2.12.1_amd64
$ ibmcloud cr region-set global
The region is set to 'global', the registry is 'icr.io'.

OK

mfer@0x0c:~/Documents/IBM_Cloud_CLI_2.12.1_amd64
$
```

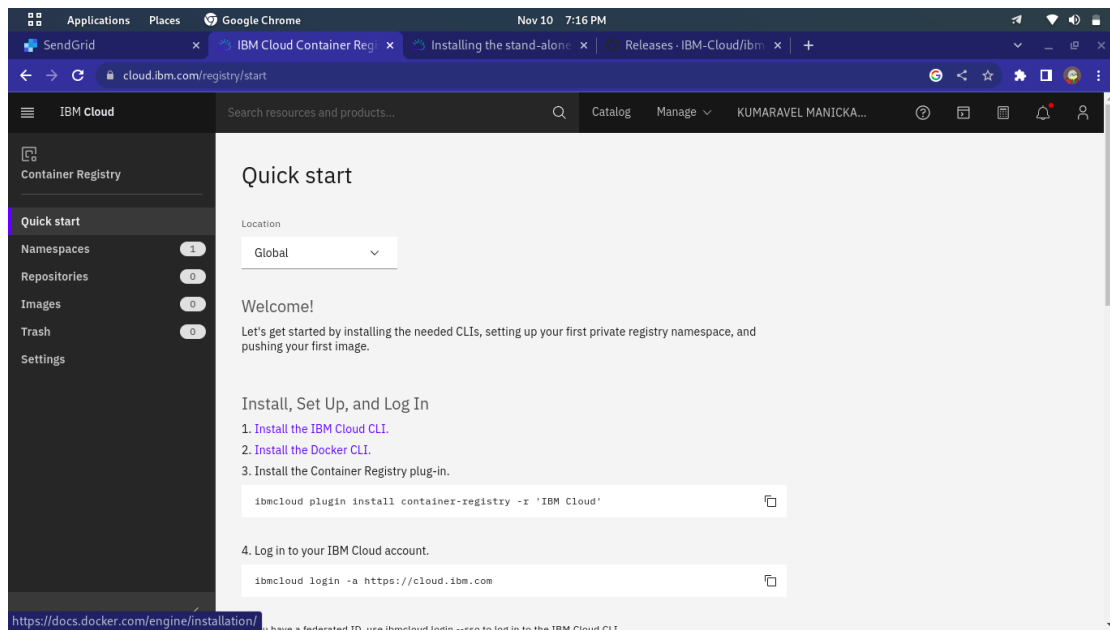

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Step 12: Create namespace in your container registry



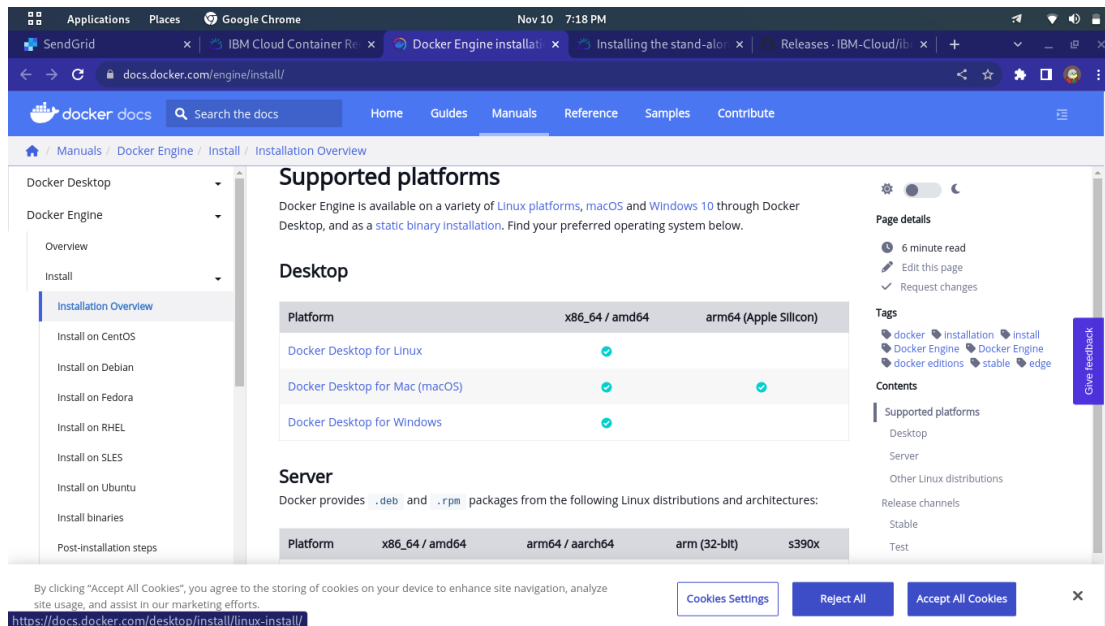
3. DOCKER CLI INSTALLATION:

Step 1: Open container registry in IBM Cloud and click on Install Docker CLI.

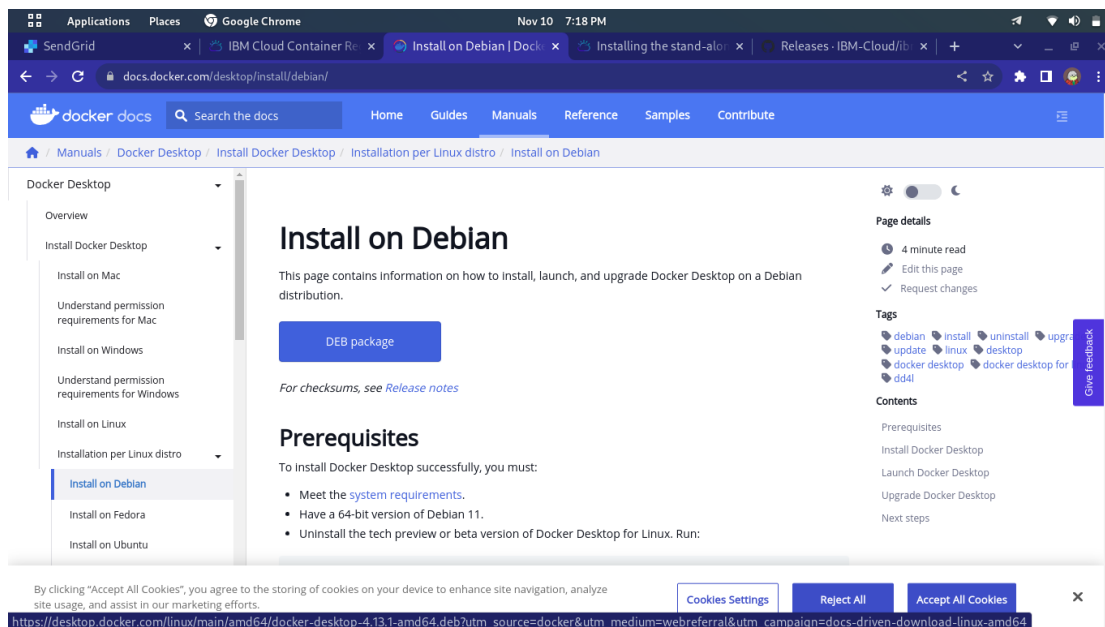


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Step 2: Then, Click on required installer for your specified system and download it.



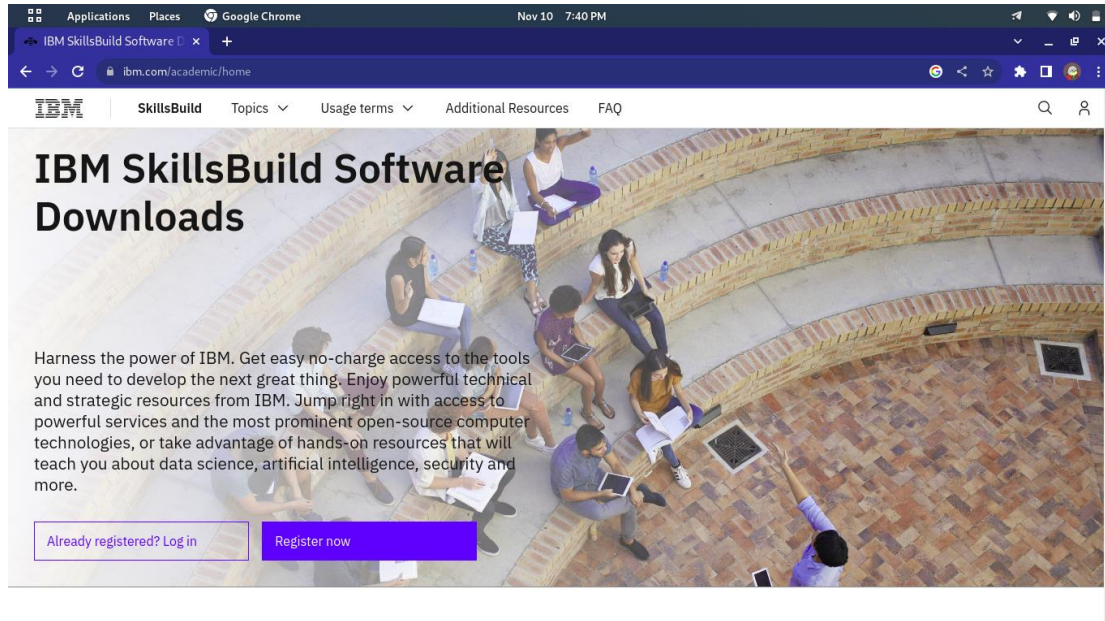
Step 3: After the setup download, run the setup and then open it and push the images, create the repository, etc....



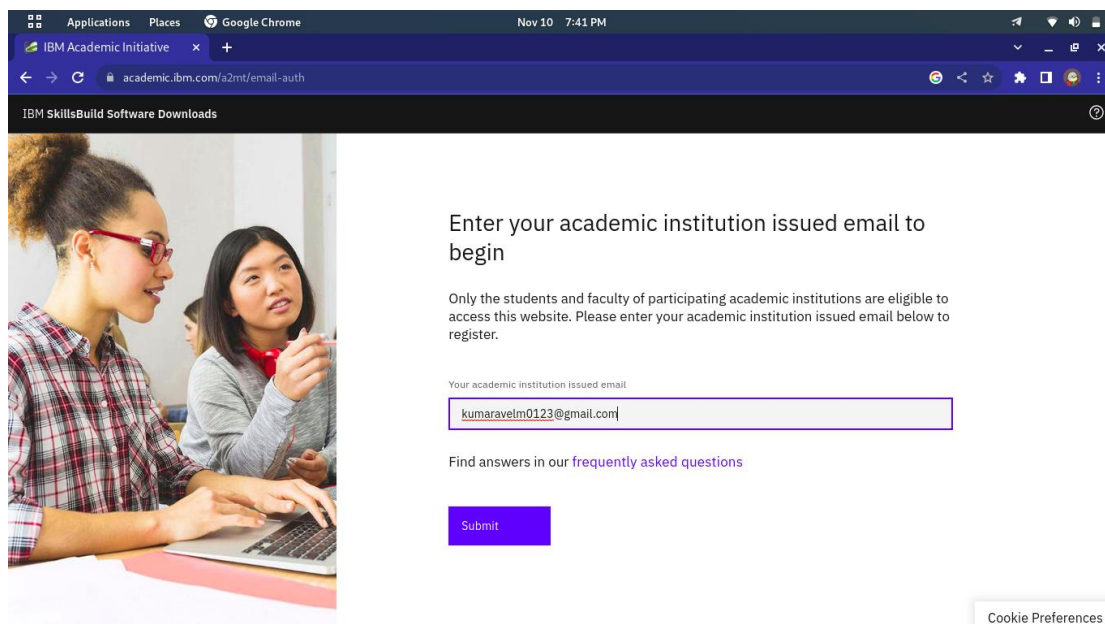
SETTING UP APPLICATION ENVIRONMENT

4. IBM CLOUD ACCOUNT CREATION:

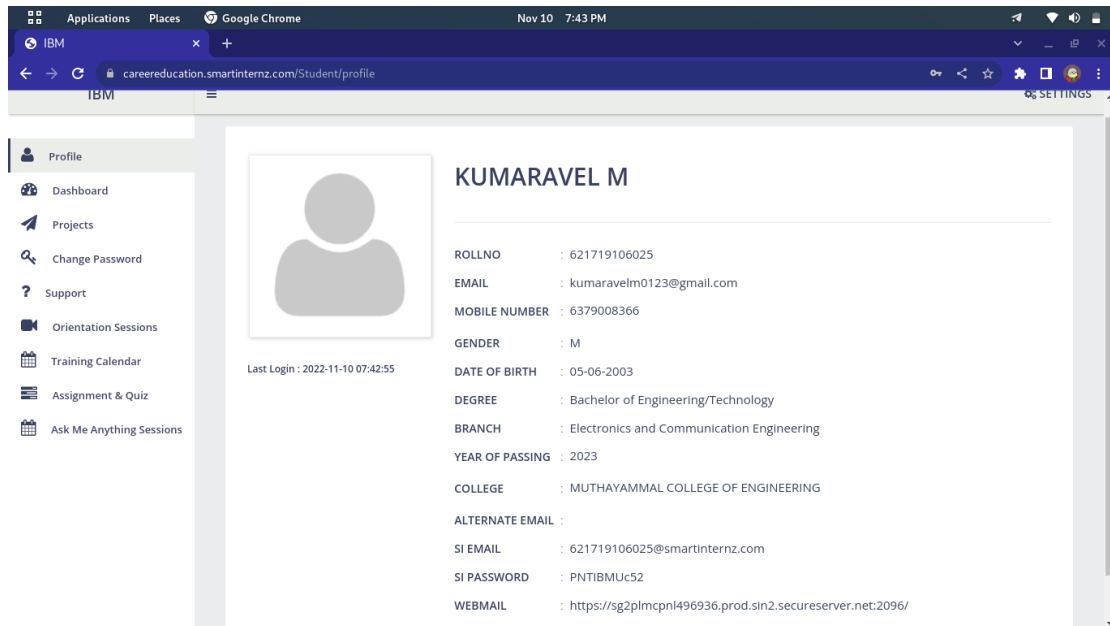
Step 1: Search for “ibm.com/academic” in the browser



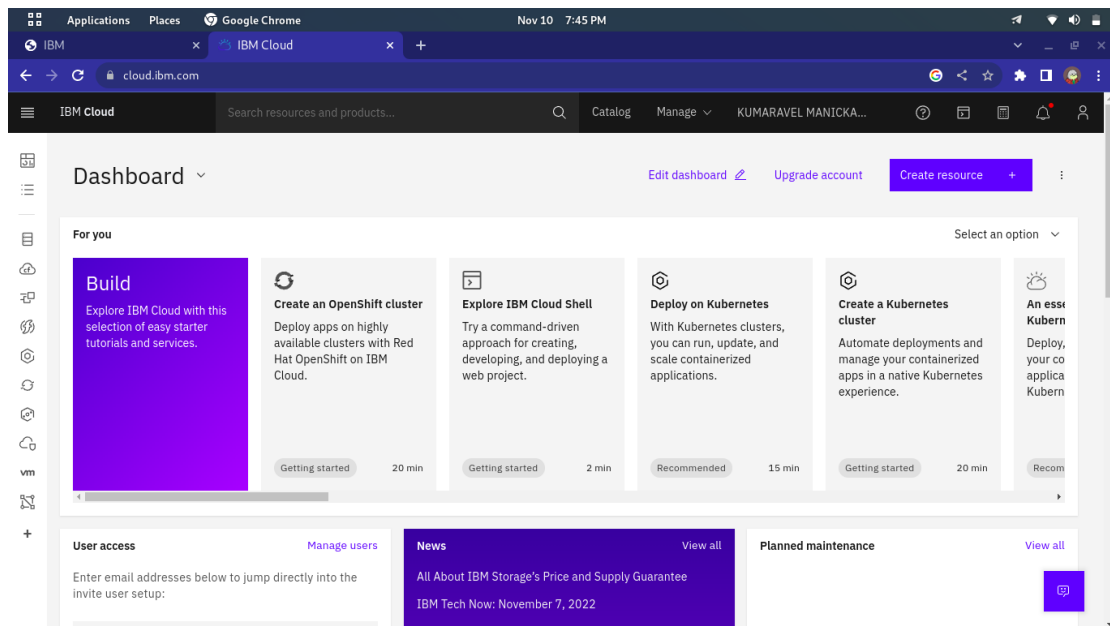
Step 2: Enter the mail issued by the academic institution and follow the procedure for entering the details which is provided as video link in your IBM profile.



SETTING UP APPLICATION ENVIRONMENT



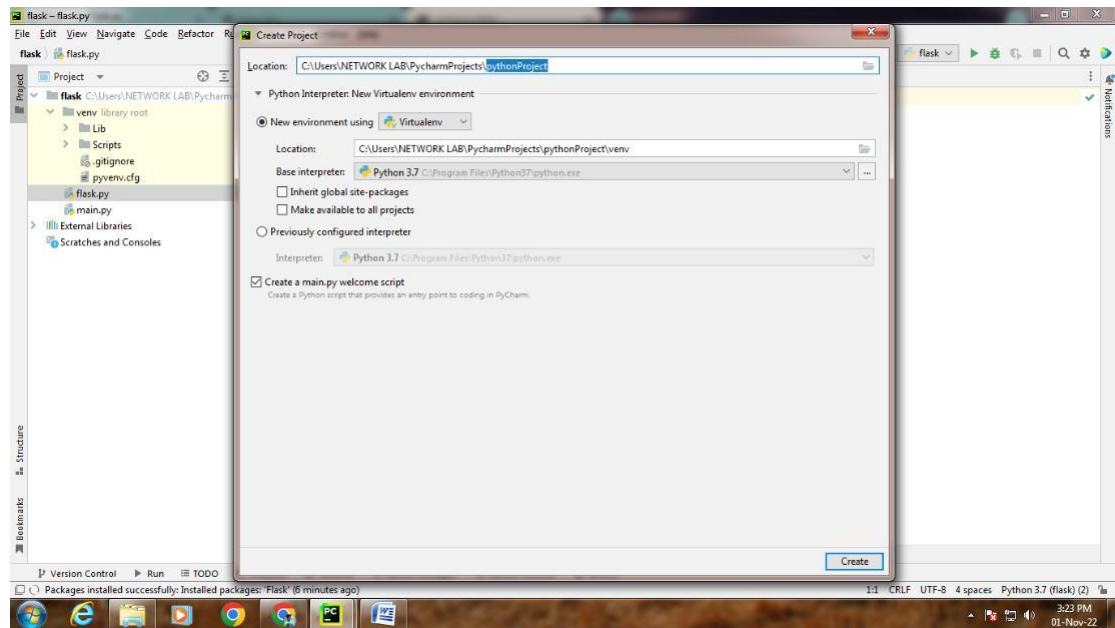
Step 3: After following the procedure that is given in reference video, your IBM cloud account will be created.



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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

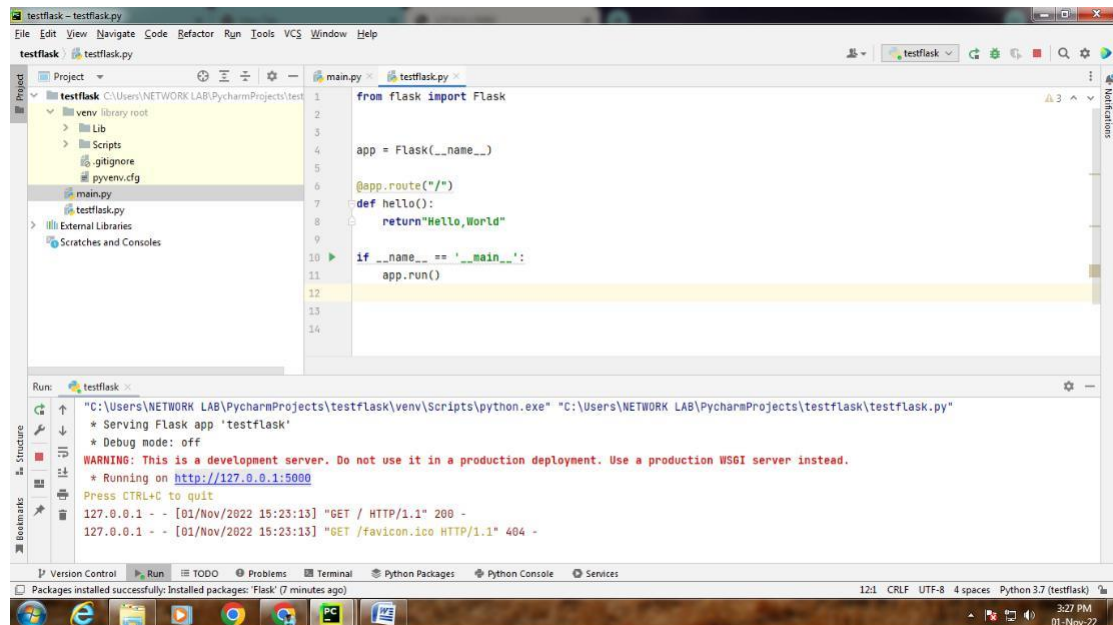
app = Flask(__name__)

@app.route("/")
def hello():
    return "Hello, World"

if __name__ == '__main__':
    app.run()
```

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



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

