

PROJECT DEVELOPMENT PHASE

SPRINT-4

Date	07 November 2022
Team ID	PNT2022TMID40422
Project Name	Natural Disaster Intensity Analysis and Classification using Artificial Intelligence

INTEGRATE THE WEB APP WITH AI MODEL:

After creating the Model, the Model should be integrated with the web app using the Flask application. The coding part is named as app.py and it will be running in the localhost through the generated link. By navigating the localhost the webpage will be visible.

```
73         output = frame.copy()
74         #print("apple")
75         frame = cv2.cvtColor(frame, cv2.COLOR_BGR2RGB)
76         frame = cv2.resize(frame, (64, 64))
77         #frame = frame.astype("float32")
78         x=np.expand_dims(frame, axis=0)
79         result = np.argmax(model.predict(x), axis=-1)
80         index=['Cyclone','Earthquake','Flood','Wildfire']
81         result=str(index[result[0]])
82         #print(result)
83         #result=result.tolist()
84
85         cv2.putText(output, "activity: {}".format(result), (10, 120), cv2.FONT_HERSHEY_PLAIN,
86                     1, (0,255,255), 1)
87         #playaudio("Emergency it is a disaster")
88         cv2.imshow("Output", output)
89         key = cv2.waitKey(1) & 0xFF
90
91         # if the `q` key was pressed, break from the loop
92         if key == ord("q"):
93             break
94
95         # release the file pointers
96         print("[INFO] cleaning up..")
97         vs.release()
98         cv2.destroyAllWindows()
99         return render_template("upload.html")
100
101 if __name__ == '__main__':
102     app.run(debug=False, threaded=True)
```

Output



IBM 127.0.0.1:5000/home

127.0.0.1:5000/home

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Cyclone

activity: Cyclone

Uncontrolled fire in a forest, grassland, brushland

WildFire

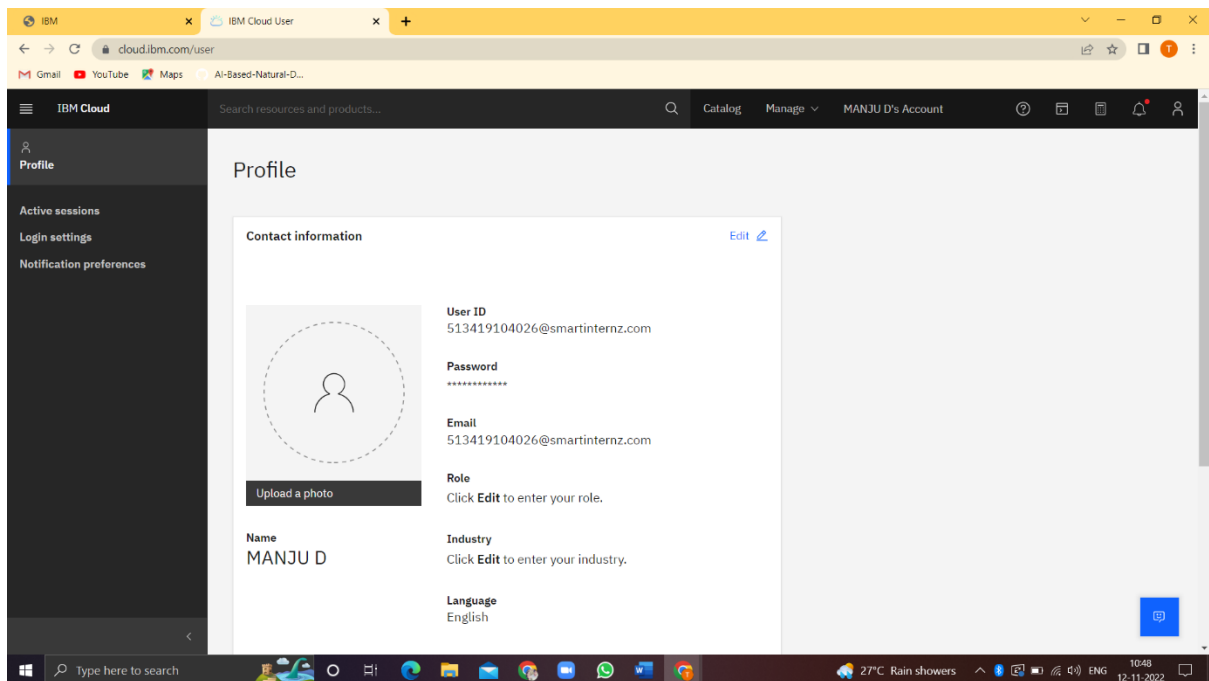
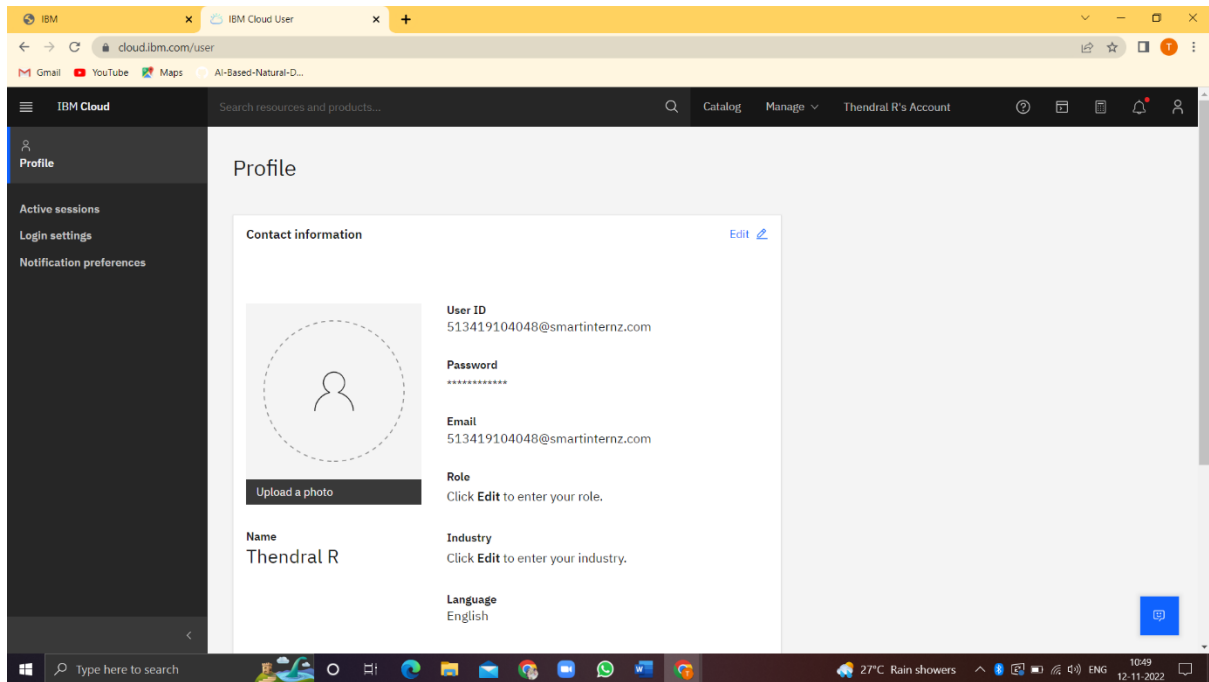
Uncontrolled fire in a forest, grassland, brushland

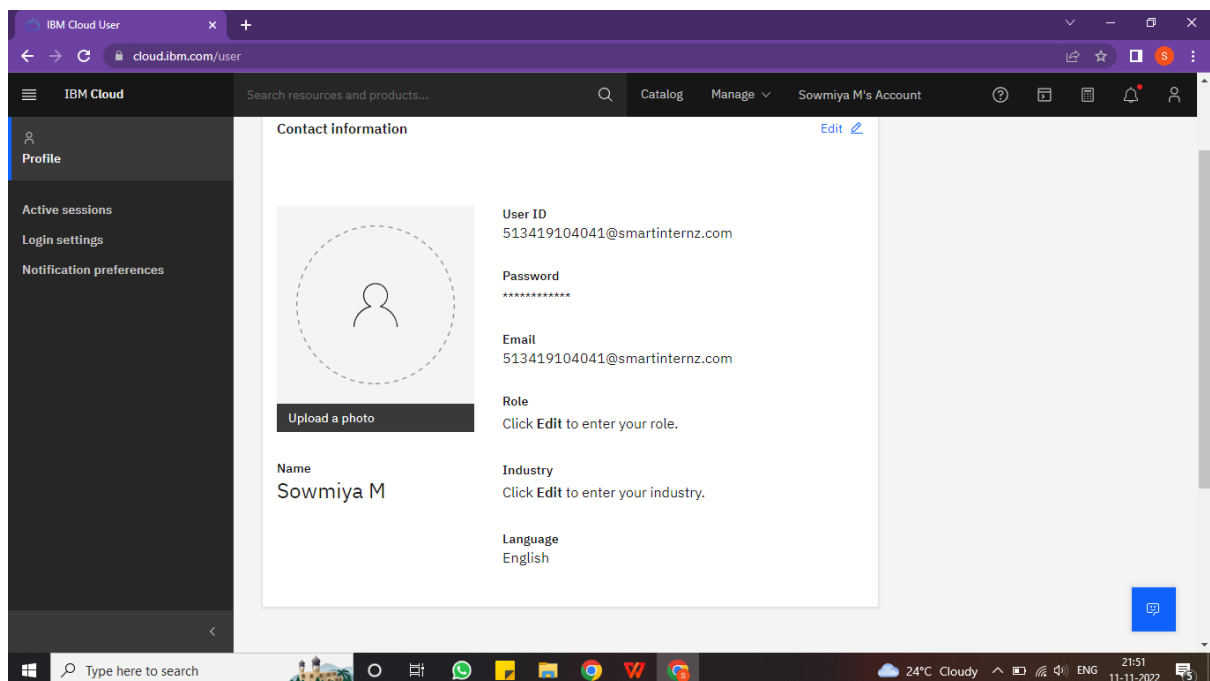
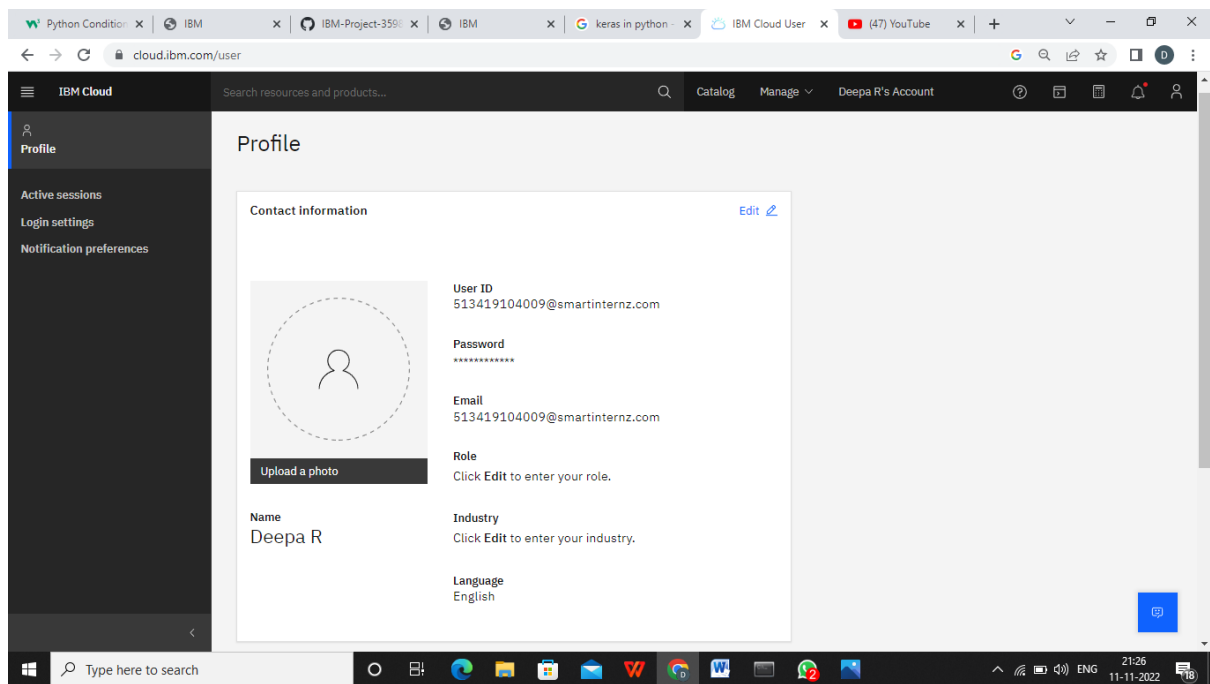
29°C 10:17 08-11-2022

The image shows a web browser window displaying a dashboard with three main sections. The top section is titled 'Cyclone' and features a satellite image of a cyclone with the text 'activity: Cyclone'. The middle section is titled 'WildFire' and features a photograph of a large fire with the text 'Uncontrolled fire in a forest, grassland, brushland'. The bottom section is partially visible and shows a building. The browser's address bar shows '127.0.0.1:5000/home' and the taskbar at the bottom displays the date '08-11-2022' and time '10:17'.

REGISTER FOR IBM CLOUD:

Registering IBM Cloud for deploying the model through the Flask application. The IBM Cloud account is created for all the team members.





MODEL DEPLOYMENT:

The trained model which is running in the localhost without any error is deployed in the IBM Cloud for making available for the users to predict the Disaster's type and its intensity. It is integrated with the Flask application.

Identity & Access x IBM Watson Studi x Untitled13.py x natural disaster x Desktop/IBM/Mo x natural disaster - x Locations for res: x eu-gb.ml.cloud.i x +

eu-gb.dataplatform.cloud.ibm.com/ml-runtime/spaces/32e4c41f-866e-49bf-a8d1-48bfbfb34b21/deployments?context=cpdaas

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Disaster	Online	Deployed	Disaster Model	7 minutes ago MANJU D (You)	

Items per page: 20 1-1 of 1 items1 of 1 pages

Drop files here or browse for files to upload.

Stay on the page until upload completes.
Incomplete uploads are cancelled.

Disaster_JBM_mode...gb

Show all

Type here to search

30°C Cloudy 11:57 10-11-2022