Training & Testing Model on IBM cloud

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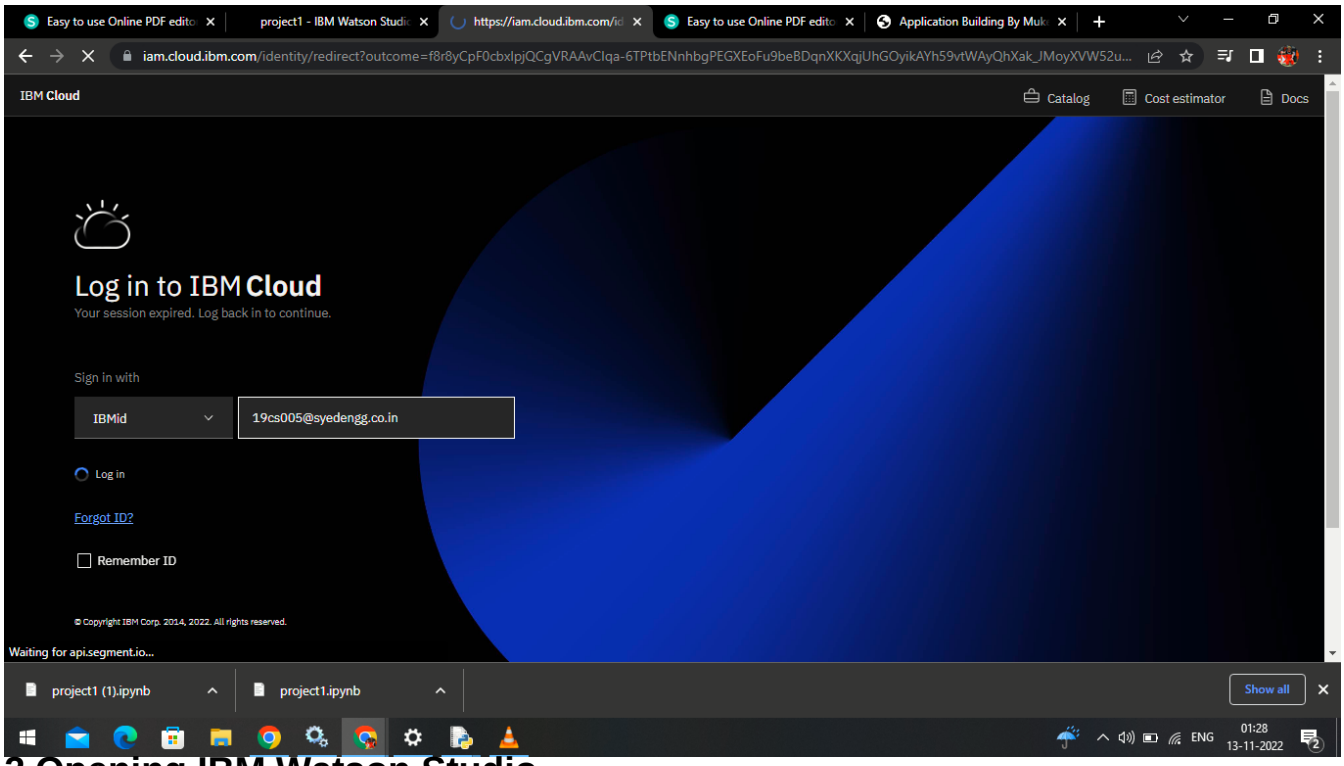
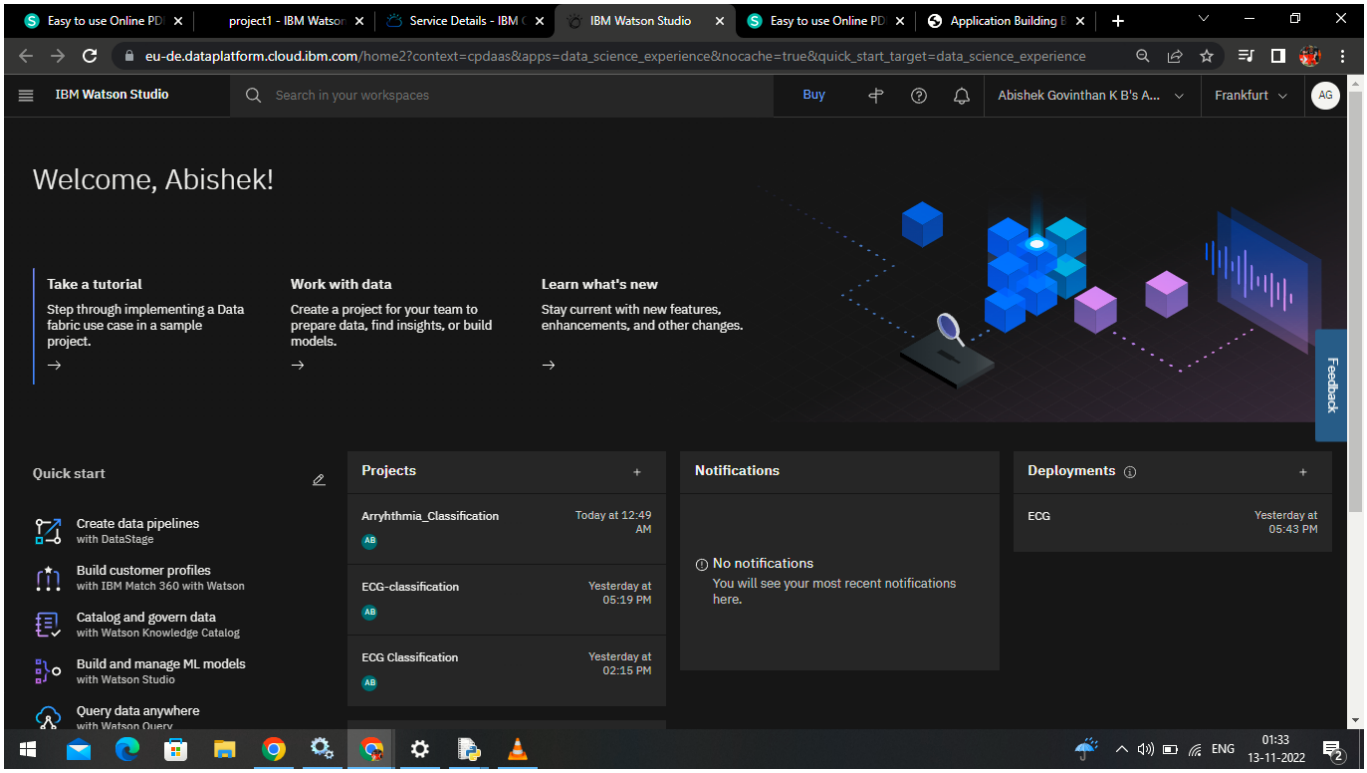
1.Register & Login IBM cloud

From given link we can Register and afterwards login the IBM cloud using credentials.



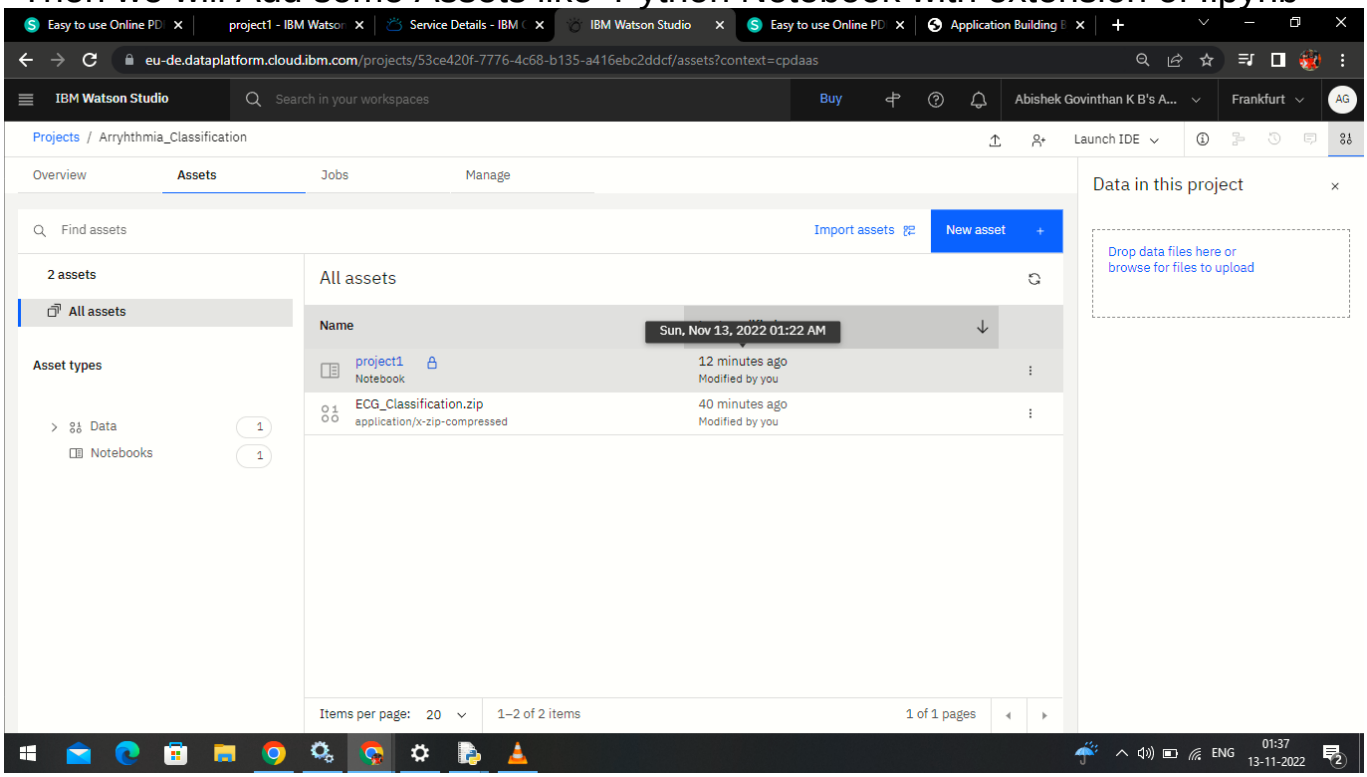
2.Opening IBM Watson Studio

To Run our model we use IBM watson studio inside we will create our own new project.



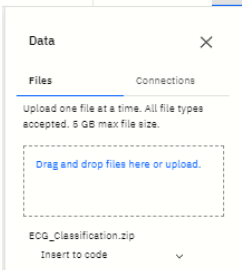
3.Adding Assests

Once we create a new project named Arryhthmia_Classification
Then we will Add some Assets like Python Notebook with extension of .ipynb



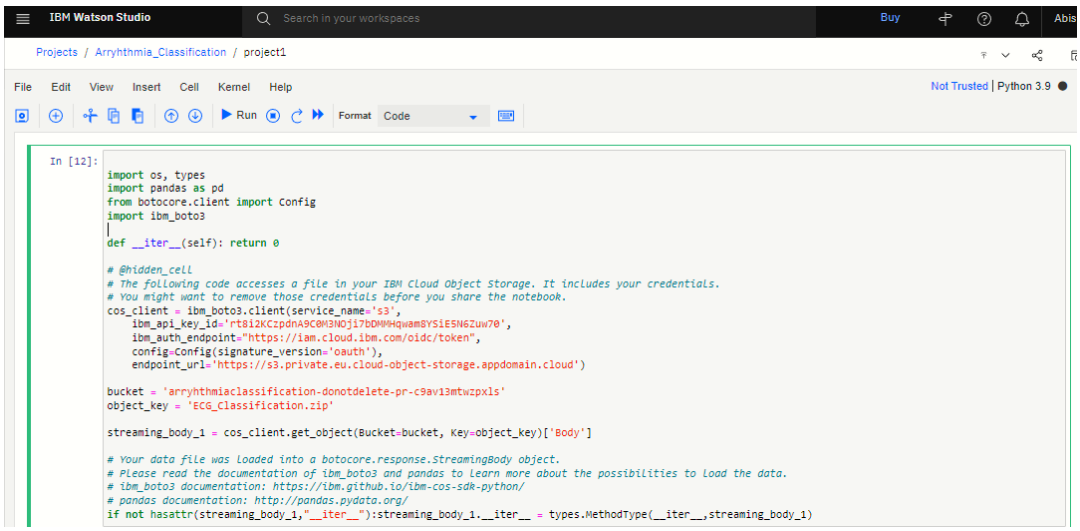
4 .Opening notebook file

At the end we will open the note book file and after we download the dataset once we download it into zip file we will add the file into data assests.



5.Insert File code

Then we will create a new cell and insert the code into it.



6.Unzip the file

Once we store the file we will deprecate or unzip the file from the beginning.

Know About the directory by using pwd command.

```
In [1]: pwd
Out[1]: '/home/wsuser/work'
```

7.Train the Model in IBM Watson Studio

After Completion of these stuffs we will move forward to start Train the model.

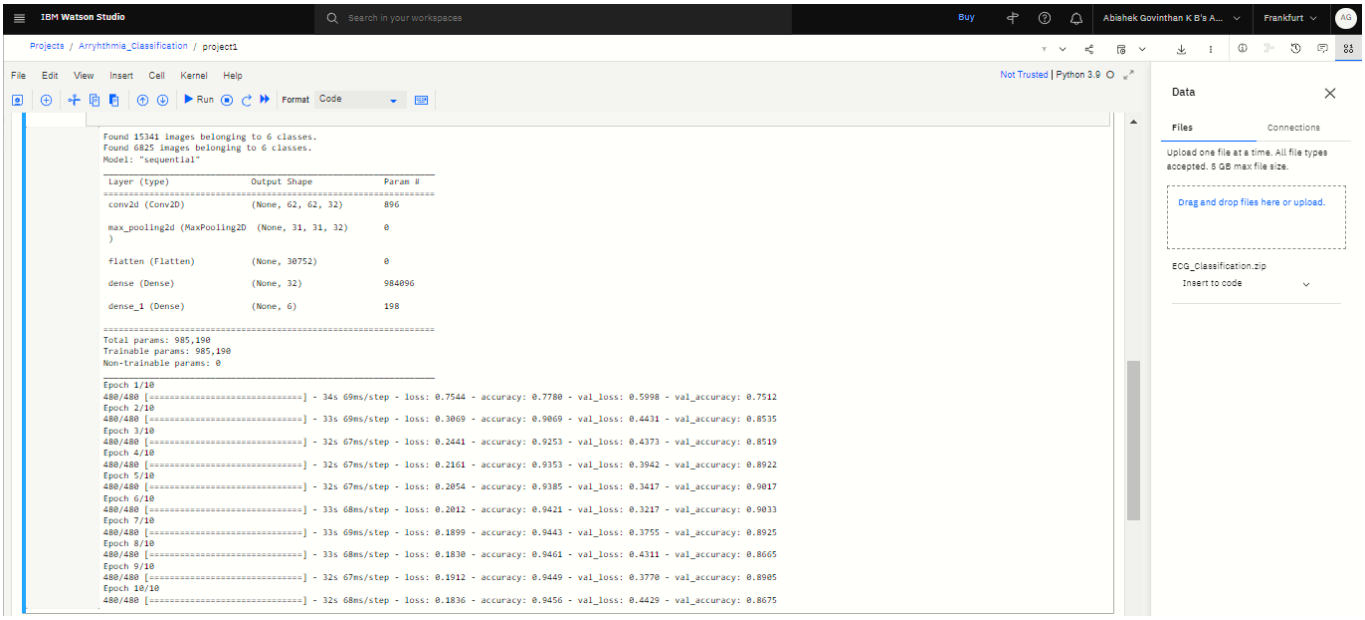
```
In [*]: from keras.preprocessing.image import ImageDataGenerator
train_datagen=ImageDataGenerator(rescale=1./255,shear_range=0.2,zoom_range=0.2,horizontal_flip=True)
test_datagen=ImageDataGenerator(rescale=1./255)
x_train=train_datagen.flow_from_directory(directory=r'/home/wsuser/work/data/train',target_size=(64,64),batch_size=32,class_mode='categorical')
x_test=test_datagen.flow_from_directory(directory=r'/home/wsuser/work/data/test',target_size=(64,64),batch_size=32,class_mode='categorical')

import numpy as np
import tensorflow
from tensorflow.keras.models import Sequential
from tensorflow.keras import layers
from tensorflow.keras.layers import Dense,Flatten
from tensorflow.keras.layers import Conv2D,MaxPooling2D
model=Sequential()
model.add(Conv2D(32,(3,3),input_shape=(64,64,3),activation='relu'))
model.add(MaxPooling2D(pool_size=(2,2)))
model.add(Flatten())
model.add(Dense(32))
model.add(Dense(6,activation='softmax'))
model.summary()
model.compile(optimizer='adam',loss='categorical_crossentropy',metrics=['accuracy'])

model.fit(x_train,steps_per_epoch=len(x_train),epochs=10,validation_data=x_test,validation_steps=len(x_test))

model.save('ECG.h5')
```

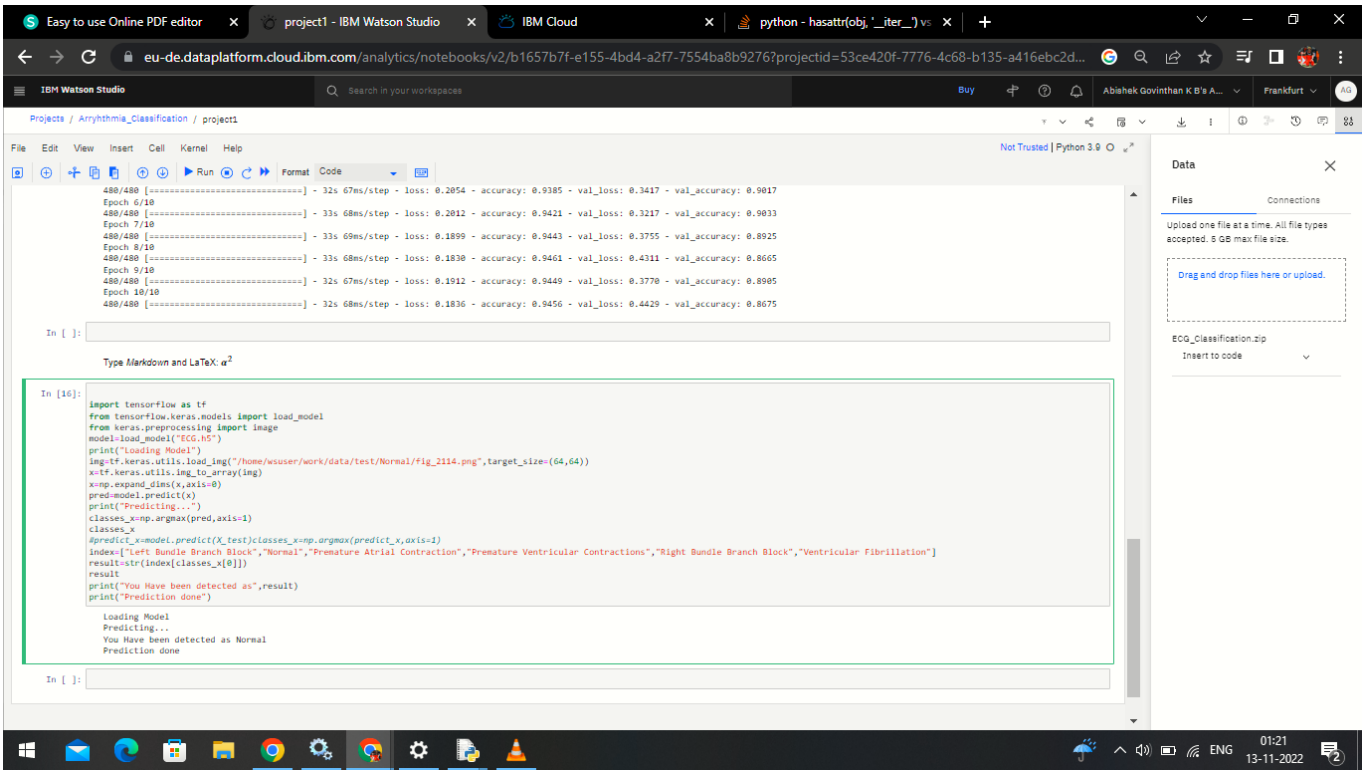
Outcome of the Trained Model will be shown after compiling and summarizing it.



This how the Model was Trained in IBM watson Studio.

8.Testing the Model

At the end of the day we will try to test the model which can give the desired and precise prediction based on the trained model.



This How the Model was tested in IBM Watson Studio.

Regards

Mukesh & Team