

Project Development Phase
Model Performance Test

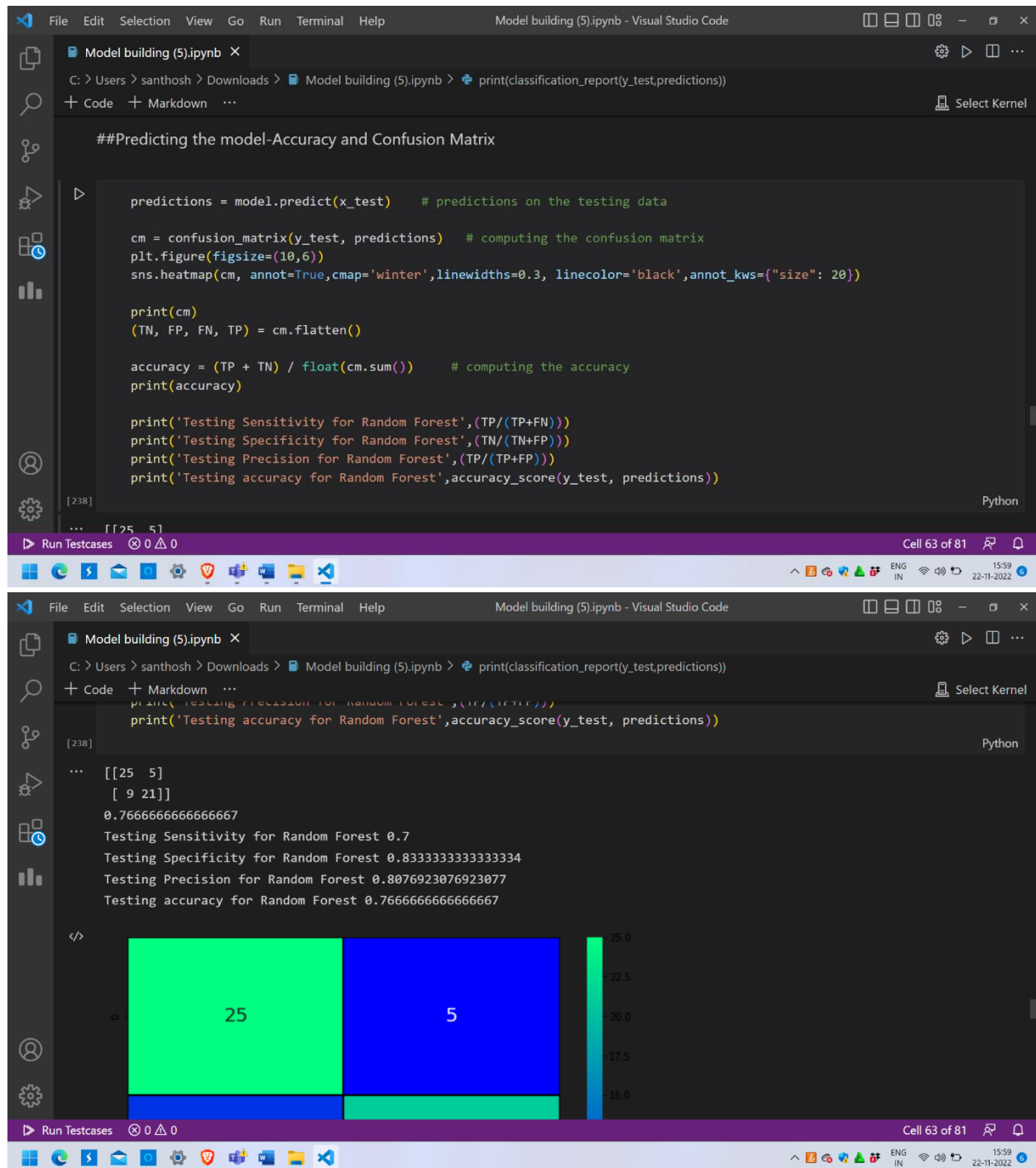
Date	22 NOVEMBER 2022
Team ID	PNT2022TMID39601
Project Name	Detecting Parkinson's Disease using Machine Learning
Maximum Marks	10 Marks

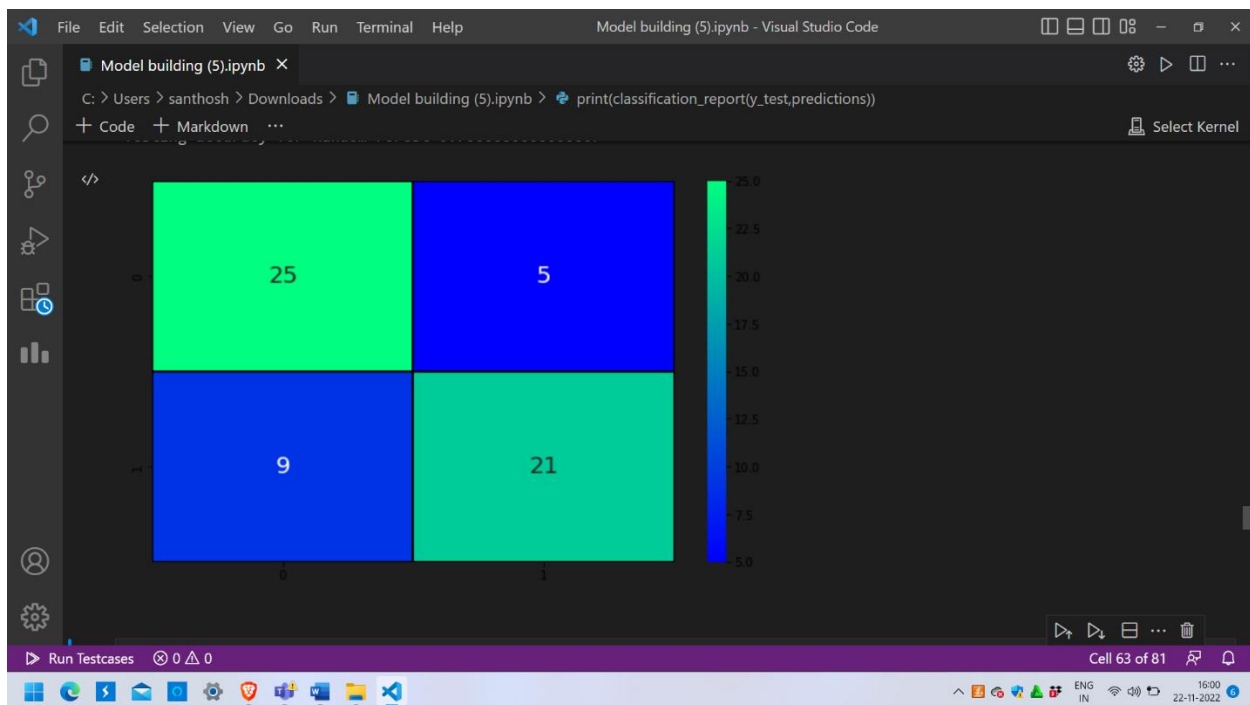
Model Performance Testing:

Project team shall fill the following information in model performance testing template.

S.No.	Parameter	Values	Screenshot
1.	Metrics	Classification Model: Confusion Matrix – [[25 5][9 21]] Accuracy Score 0.7666666666666667 Classification Report – precision recall f1-score support 0 0.74 0.83 0.78 30 1 0.81 0.70 0.75 30 accuracy 0.77 60 macro avg 0.77 0.77 0.77 60 weighted avg 0.77 0.77 0.77 60	Screenshot 1
2.	Tune the Model	Hyperparameter Tuning - Nil Validation Method – Split Data Validation	Screenshot 2

Screenshot 1:





Model building (5).ipynb - Visual Studio Code

Model building (5).ipynb X

C: > Users > santhosh > Downloads > Model building (5).ipynb > print(classification_report(y_test,predictions))

+ Code + Markdown ...

Select Kernel

```
print(classification_report(y_test,predictions))
```

[239] Python

	precision	recall	f1-score	support
0	0.74	0.83	0.78	30
1	0.81	0.70	0.75	30
accuracy			0.77	60
macro avg	0.77	0.77	0.77	60
weighted avg	0.77	0.77	0.77	60

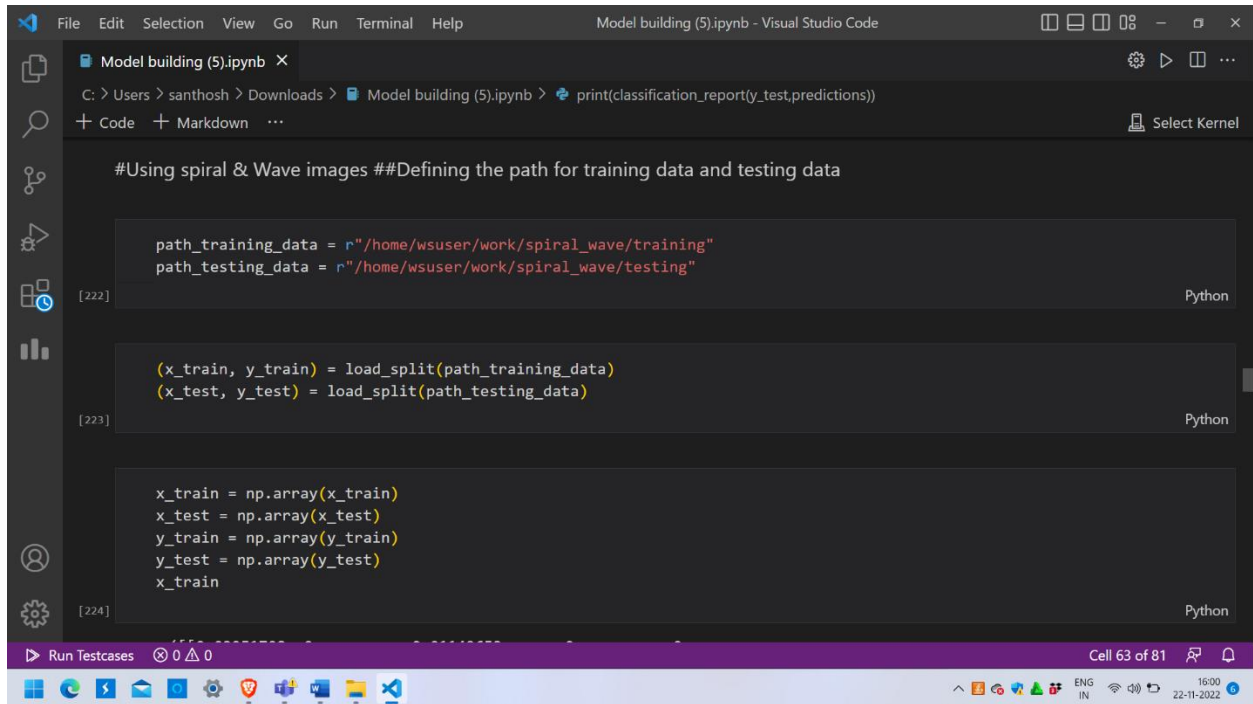
#Save the model

```
pickle.dump(model,open('parkinson.pkl','wb'))
```

Run Testcases 0 0 0

Cell 63 of 81

Screenshot 2:



The screenshot shows a Jupyter Notebook titled "Model building (5).ipynb" open in Visual Studio Code. The notebook is located at "C:\Users> santhosh > Downloads > Model building (5).ipynb". The code is written in Python and is organized into three cells. The first cell contains a comment and two lines of code defining the paths for training and testing data. The second cell contains two lines of code using `load_split` to load the data. The third cell contains four lines of code using `np.array` to convert the loaded data into NumPy arrays. The status bar at the bottom indicates "Cell 63 of 81" and the date "22-11-2022".

```
#Using spiral & Wave images ##Defining the path for training data and testing data

path_training_data = r"/home/wsuser/work/spiral_wave/training"
path_testing_data = r"/home/wsuser/work/spiral_wave/testing"

(x_train, y_train) = load_split(path_training_data)
(x_test, y_test) = load_split(path_testing_data)

x_train = np.array(x_train)
x_test = np.array(x_test)
y_train = np.array(y_train)
y_test = np.array(y_test)
x_train
```