Spring 2023: CS5720–NN &DL ICP 5

In-Class Programming Assignment-5

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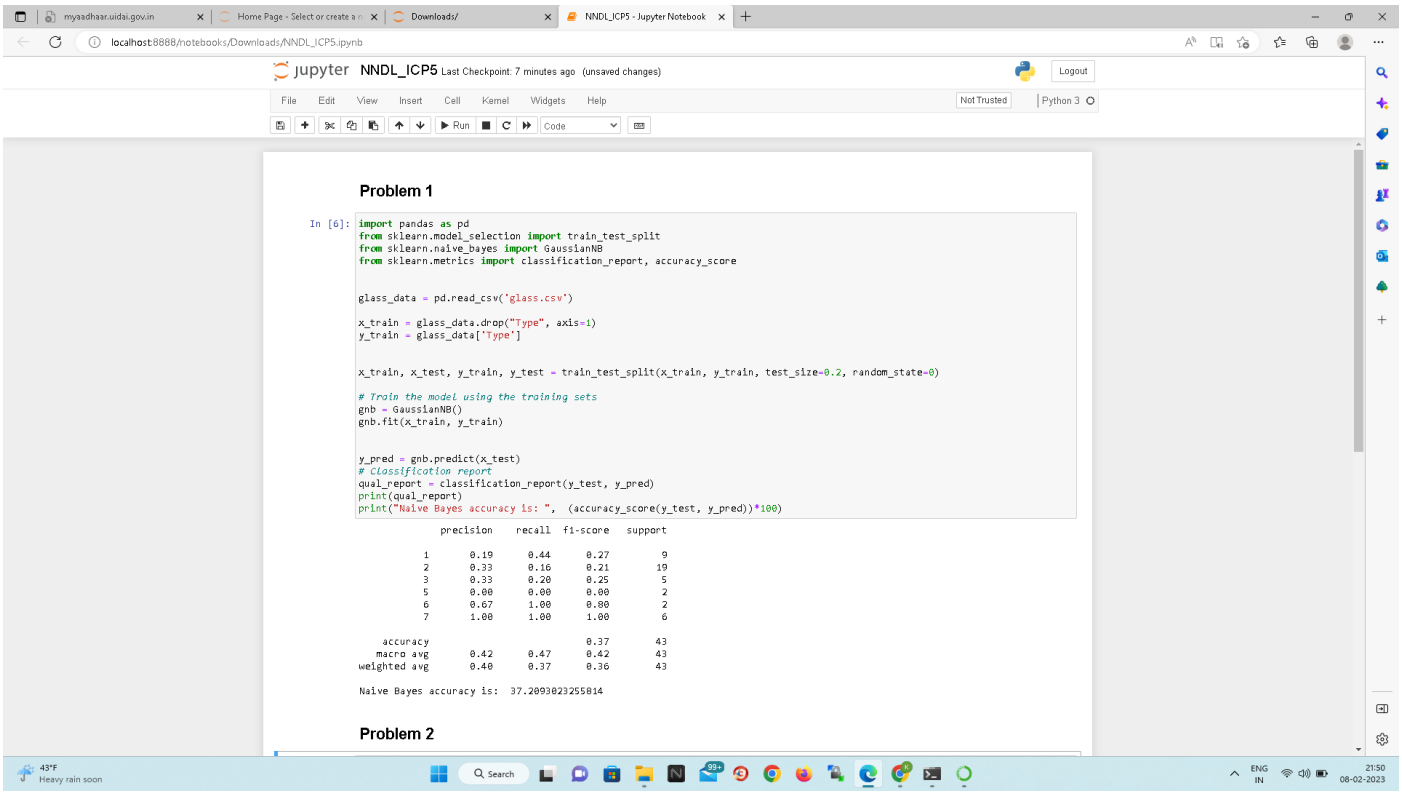
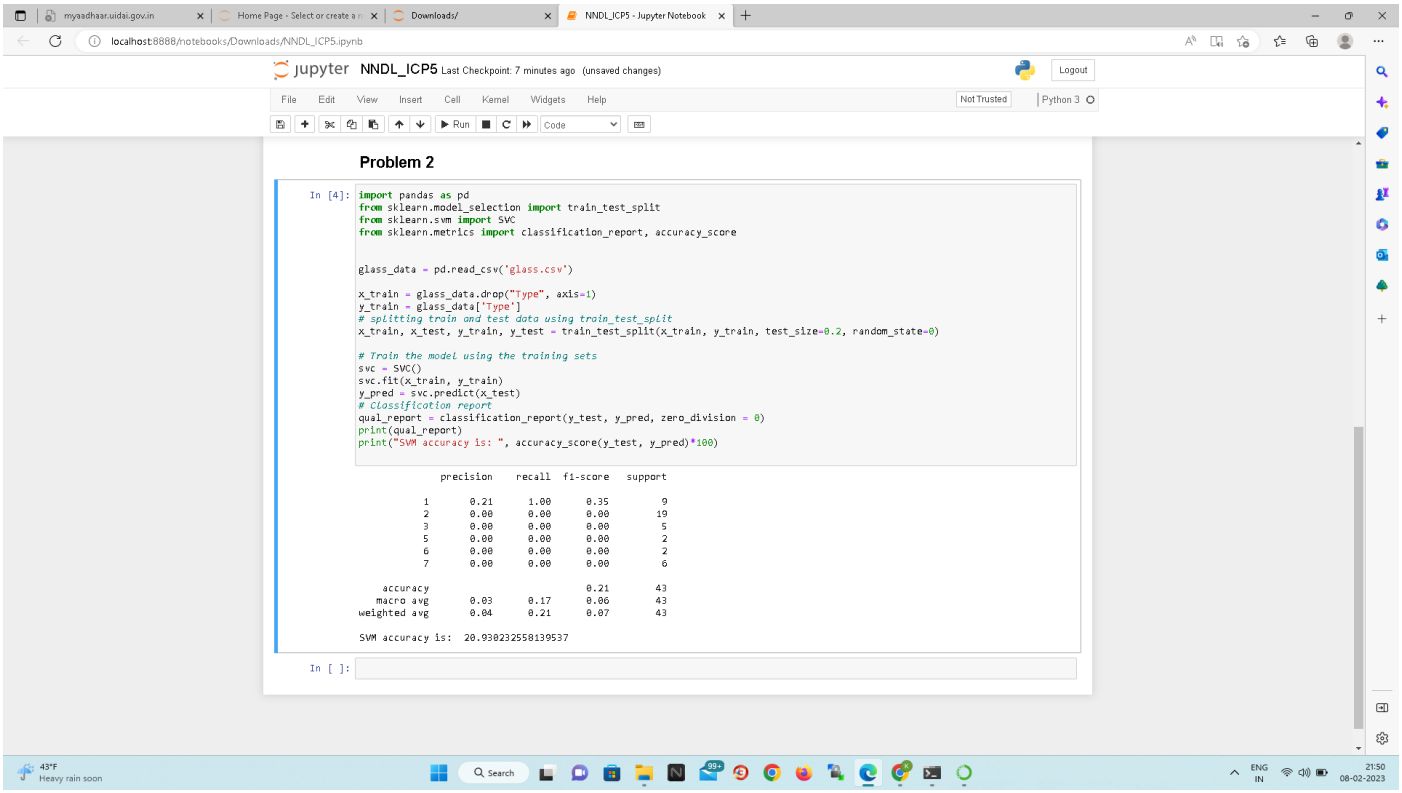
Github Link:

https://github.com/kxk86810/Assignment-5

Problem 1:



Problem 2:


NNDL_ICP5 - Jupyter Notebook
localhost:8888/notebooks/Downloads/NNDL_ICP5.ipynb
jupyter NNDL_ICP5 Last Checkpoint: 7 minutes ago (unsaved changes)
Logout
File Edit View Insert Cell Kernel Widgets Help
Not Trusted
Python 3
Run
Code
Problem 2
In [4]:
import pandas as pd
from sklearn.model_selection import train_test_split
from sklearn.svm import SVC
from sklearn.metrics import classification_report, accuracy_score
glass_data = pd.read_csv('glass.csv')
x_train = glass_data.drop("Type", axis=1)
y_train = glass_data['Type']
# splitting train and test data using train_test_split
x_train, x_test, y_train, y_test = train_test_split(x_train, y_train, test_size=0.2, random_state=0)
# Train the model using the training sets
svc = SVC()
svc.fit(x_train, y_train)
y_pred = svc.predict(x_test)
# Classification report
qual_report = classification_report(y_test, y_pred, zero_division = 0)
print(qual_report)
print("SVM accuracy is: ", accuracy_score(y_test, y_pred)*100)
precision recall f1-score support
1 0.21 1.00 0.35 9
2 0.00 0.00 0.00 19
3 0.00 0.00 0.00 5
5 0.00 0.00 0.00 2
6 0.00 0.00 0.00 2
7 0.00 0.00 0.00 6
accuracy 0.21 43
macro avg 0.03 0.17 0.06 43
weighted avg 0.04 0.21 0.07 43
SVM accuracy is: 20.930232558139537
In [ ]:
43°F
Heavy rain soon
Search
ENG
IN
21:50
08-02-2023