

```
In [1]: import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
from sklearn.model_selection import train_test_split
```

```
In [2]: d = pd.read_csv("C:/Users/pc/Desktop/STU.csv")
d.head(7)
```

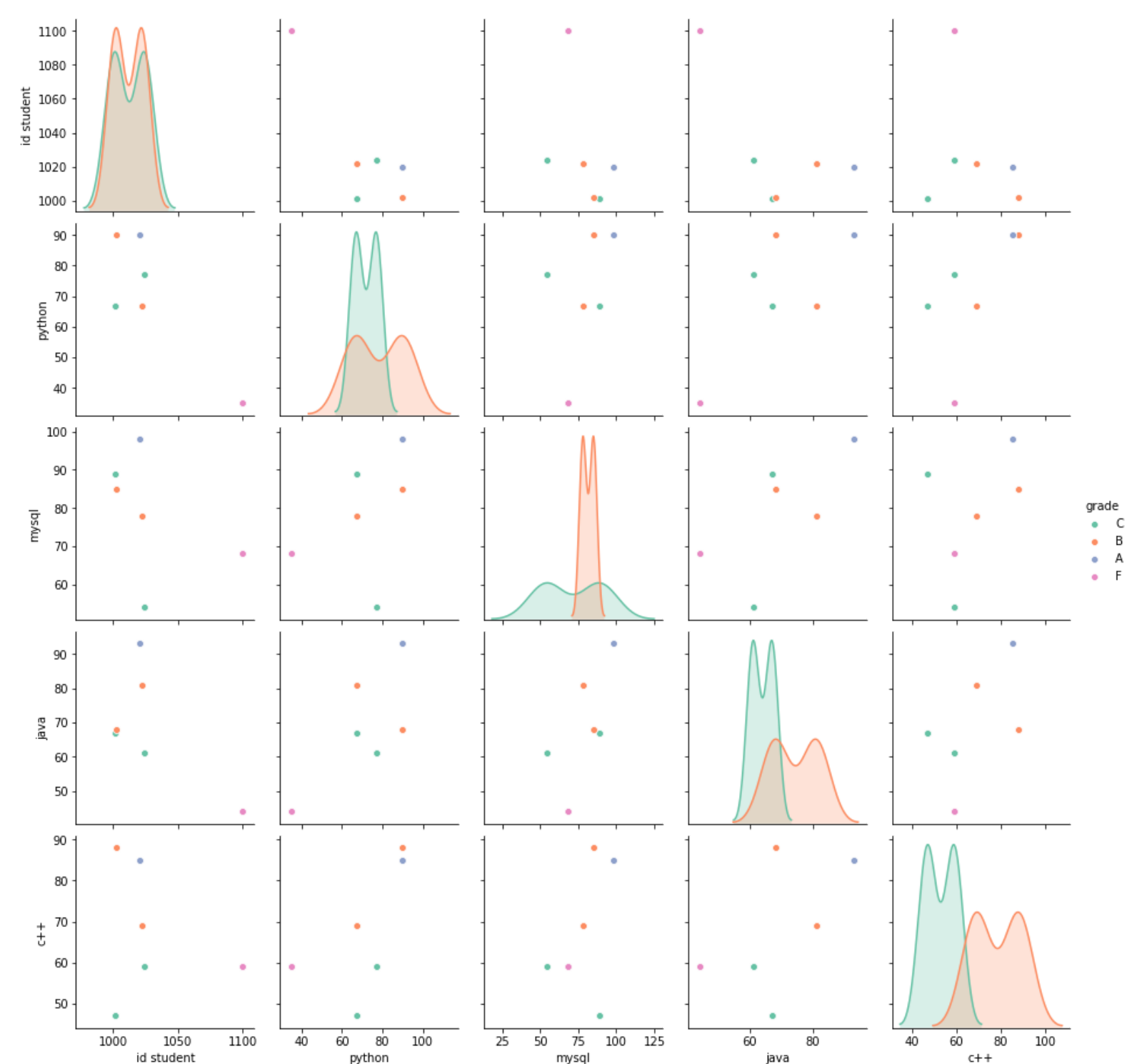
```
Out[2]:
```

	id student	python	mysql	java	c++	grade
0	1001	67	89	67	47	C
1	1002	90	85	68	88	B
2	1020	90	98	93	85	A
3	1022	67	78	81	69	B
4	1100	35	68	44	59	F
5	1024	77	54	61	59	C

```
In [6]: sns.pairplot(data=d, hue='grade', palette='Set2')
```

[illegible]

```
Out[6]: <seaborn.axisgrid.PairGrid at 0x4199fc0508>
```



```
In [8]: x = d.iloc[:, :-1].values  
        y = d.iloc[:, 5].values
```

```
In [9]: x_train,x_test, y_train, y_test=train_test_split(x,y,test_size=0.30)
```

```
In [10]: from sklearn.svm import SVC  

model=SVC(kernel='rbf')  

model.fit(x_train, y_train)
```

```
Out[10]: SVC(C=1.0, break_ties=False, cache_size=200, class_weight=None, coef0=0.0,
decision_function_shape='ovr', degree=3, gamma='scale', kernel='rbf',
max_iter=-1, probability=False, random_state=None, shrinking=True,
tol=0.001, verbose=False)
```

```
In [11]: pred=model.predict(x_test)
```

```
In [13]: print(pred)
          ['C' 'C']
```

```
In [15]: d = pd.DataFrame({'Actual': y_test.flatten(), 'Predicted': pred.flatten()})
```

Out[15]:

	Actual	Predicted
0	B	C
1	C	C

```
In [16]: from sklearn.metrics import classification_report, confusion_matrix

print(confusion_matrix(y_test, pred))

print(classification_report(y_test, pred))
```

[[0 1] [0 1]]					
	precision	recall	f1-score	support	
B	0.00	0.00	0.00		1
C	0.50	1.00	0.67		1
accuracy			0.50		2
macro avg	0.25	0.50	0.33		2
weighted avg	0.25	0.50	0.33		2

```
E:\Anaconda3\lib\site-packages\sklearn\metrics\_classification.py:1272: UndefinedMetricWarning: Precision and F-score are ill-defined and being set to 0.0 in labels with no predicted samples. Use `zero_division` parameter to control this behavior.
  _warn_prf(average, modifier, msg_start, len(result))
```

In []: