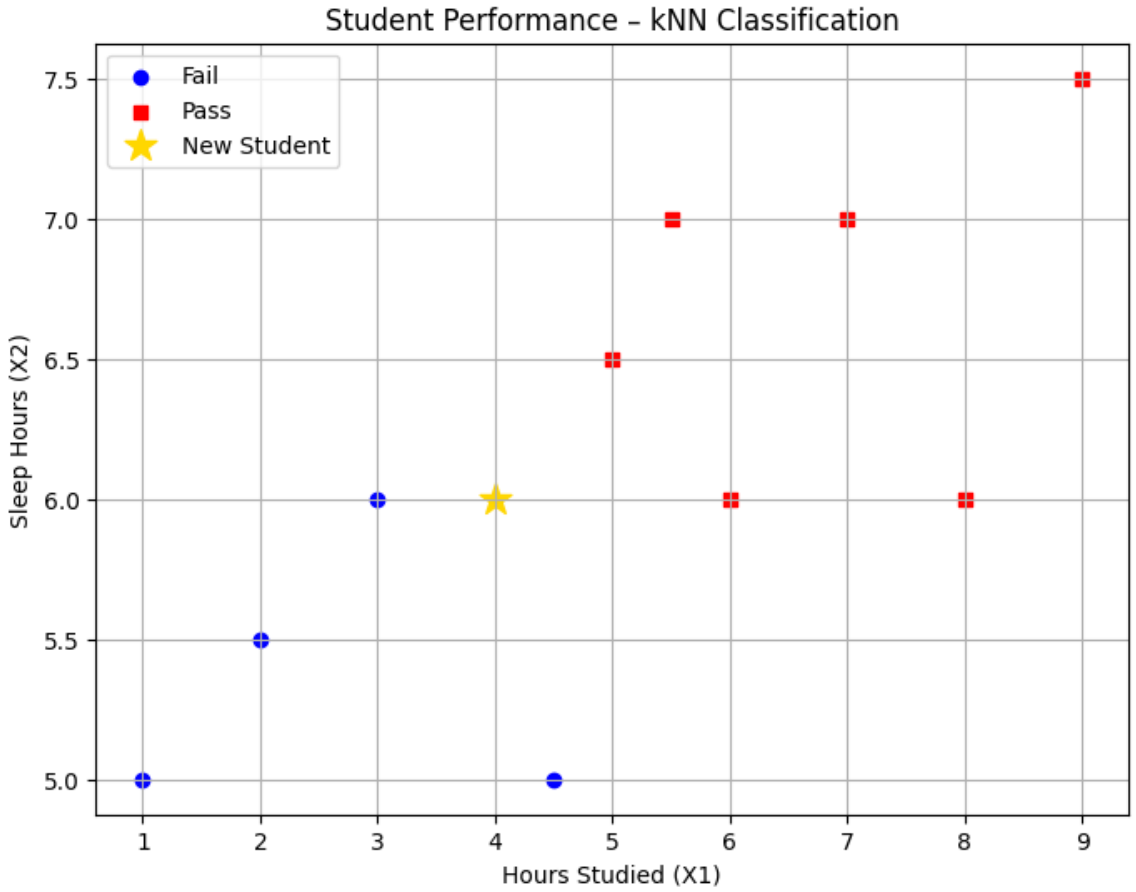


```
Student 1: Studied=1.0, Slept=5.0, Result=0, Distance=3.16
Student 2: Studied=2.0, Slept=5.5, Result=0, Distance=2.06
Student 3: Studied=3.0, Slept=6.0, Result=0, Distance=1.0
Student 4: Studied=4.5, Slept=5.0, Result=0, Distance=1.12
Student 5: Studied=5.0, Slept=6.5, Result=1, Distance=1.12
Student 6: Studied=5.5, Slept=7.0, Result=1, Distance=1.8
Student 7: Studied=6.0, Slept=6.0, Result=1, Distance=2.0
Student 8: Studied=7.0, Slept=7.0, Result=1, Distance=3.16
Student 9: Studied=8.0, Slept=6.0, Result=1, Distance=4.0
Student 10: Studied=9.0, Slept=7.5, Result=1, Distance=5.22


3 Nearest Neighbors:
{'Student': 3, 'X1': 3.0, 'X2': 6.0, 'Y': 0, 'Distance': 1.0}
{'Student': 4, 'X1': 4.5, 'X2': 5.0, 'Y': 0, 'Distance': 1.12}
{'Student': 5, 'X1': 5.0, 'X2': 6.5, 'Y': 1, 'Distance': 1.12}

Prediction for new student: Fail
```

1. What was your final prediction?

The prediction is Fail, based on the majority vote from the 3 nearest neighbors.

2. How would the prediction change if we used k = 5 instead of k = 3?

If we used k = 5, the prediction would likely be Pass, since more of the 5 closest students passed. A larger k gives a more stable result.