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## Homework 2 Binary Classification

For this homework assignment, I selected the following 5 features from the dataset we were supposed to use: pregnant, glucose, bp, skin, and insulin. After running the python program, this was my console output:

```
Eeshas-MacBook-Pro:hw02 eesha$ python3 Assignment2_EeshaPatel.py
pregnant glucose bp skin insulin
661 1 199 76 43 0
122 2 107 74 30 100
113 4 76 62 0 0
14 5 166 72 19 175
529 0 111 65 0 0
..
407 0 101 62 0 0
179 5 130 82 0 0
0 6 148 72 35 0
46 1 146 56 0 0
171 6 134 70 23 130

[308 rows x 5 columns]
Confusion Matrix:
[[182 23]
 [ 54 49]]
Binary Classification Report:
      precision    recall  f1-score   support

     0       0.77      0.89      0.83       205
     1       0.68      0.48      0.56       103

 accuracy      0.75      308
 macro avg      0.73      0.68      0.69      308
 weighted avg      0.74      0.75      0.74      308

Accuracy: 0.75
Precision: 0.6805555555555556
Recall: 0.47572815533980584
```

I made sure to display the confusion matrix, as well as the precision score, recall score, and the accuracy (F-score). The following graph and matrix were also generated when running my program:

