SOFE 3290U: Software Quality & Project Management

Lab 4

CRN 75766

Submission for Rivka Sagi

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Github repository:

https://github.com/RivkaRSagi/SOFE3980U_Lab4

Accuracy: accuracy represents how accurate the model is by taking the percentage of data points that were predicted correctly. It is calculated by taking the sum of true positives and true negatives (ie, the correctly predicted data) and dividing it by the total number of data points; true positives plus true negatives plus false positives plus false negatives. This metric is applicable for all different types of models, not just binary ones.

Recall: recall represents how well the model correctly identifies positive data from the pool of actual positives in the dataset.

Precision: precision represents the percentage of correctly predicted data that is also positive.

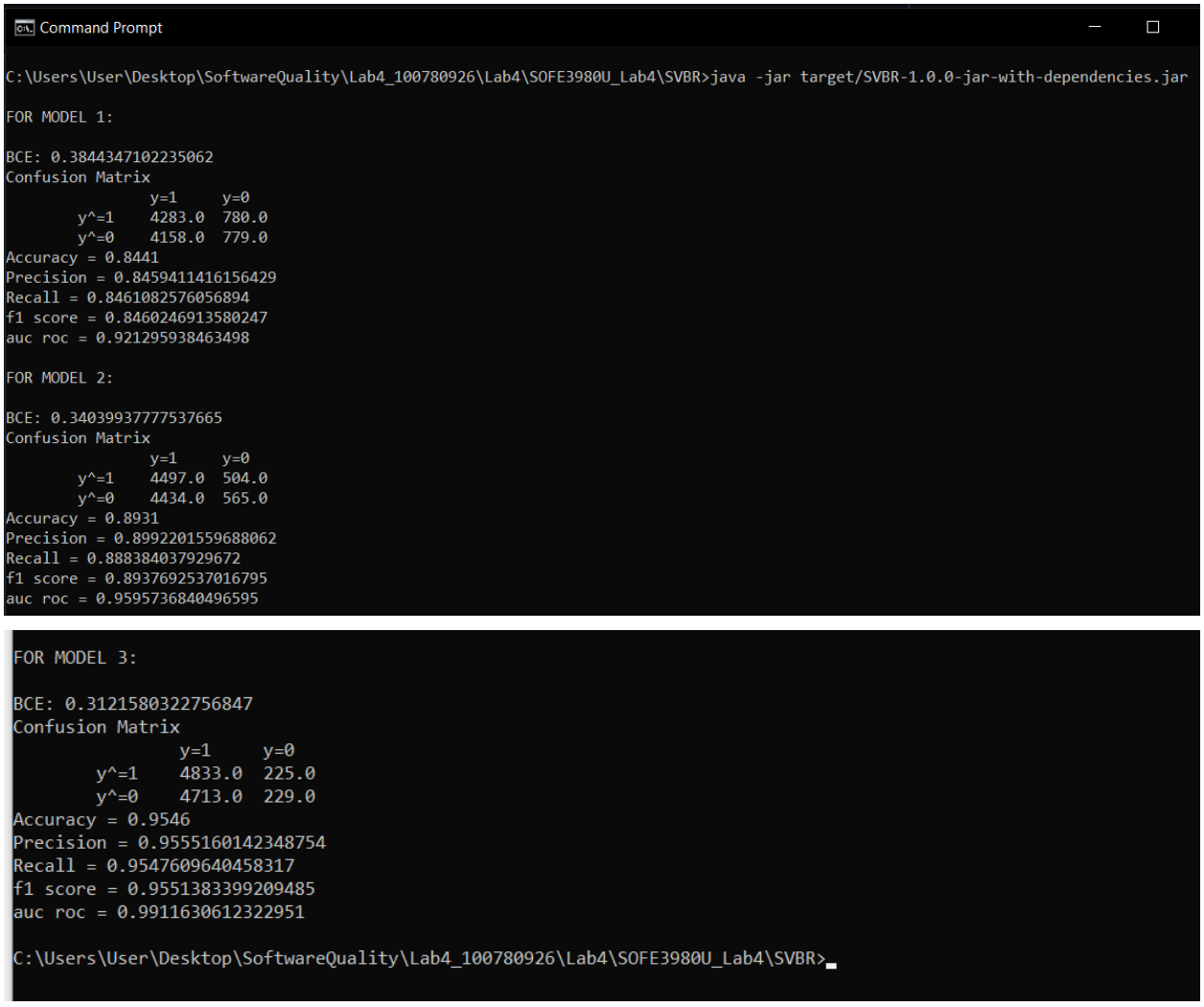
1. Single-variable Continuous Regression Problem

Code Output:

```
C:\Users\User\Desktop\SoftwareQuality\Lab4_100780926\Lab4\SOFE3980U_Lab4\SVCR>java -jar target/SVCR-1.0.0-jar-with-dependencies.jar
Model 1:
MSE = 112.09929
MAE = 8.447413
MARE = 12.452924

Model 2:
MSE = 102.97186
MAE = 8.1291275
MARE = 11.941063

Model 3:
MSE = 410.53354
MAE = 16.090708
MARE = 23.739824

Model 2 has the lowest error overall and is therefore recommended.

C:\Users\User\Desktop\SoftwareQuality\Lab4_100780926\Lab4\SOFE3980U_Lab4\SVCR>
```

2. Single-variable Binary Regression Problem

Code Output:



3. Multiclass Classification

Code Output: