Logistic Regression

```
# Check accuracy of model
print(classification_report(y_test,y_pred))
```

```
              precision    recall  f1-score   support

          NO       1.00      0.31      0.47        13
         YES       0.89      1.00      0.94        70

    accuracy                           0.89        83
   macro avg       0.94      0.65      0.71        83
weighted avg       0.90      0.89      0.87        83
```

Random Forest Classifier

```
# Check accuracy of model
print(classification_report(y_test,y_pred_rf))
```

```
              precision    recall  f1-score   support

          NO       1.00      0.31      0.47        13
         YES       0.89      1.00      0.94        70

    accuracy                           0.89        83
   macro avg       0.94      0.65      0.71        83
weighted avg       0.90      0.89      0.87        83
```

Support Vector Machine model

```
# Check accuracy of model
print(classification_report(y_test,y_pred_svm))
```

```
              precision    recall  f1-score   support

          NO       1.00      0.62      0.76        13
         YES       0.93      1.00      0.97        70

    accuracy                           0.94        83
   macro avg       0.97      0.81      0.86        83
weighted avg       0.94      0.94      0.93        83
```

Model Comparison Report

Logistic regression model and Random Classifier have have same accuracy of 89%. Whereas Support Vector Machine model has accuracy of 94%. Therefore, Support Vector Machine model is best model for production.