Logistic regression model

Suppose we have to analyze the *DatasetInsuranceClaims.xlsx*.

After checking for outliers, missing data, and inaccuracies, import the file.

Define the variables :

```
y=DatasetInsuranceClaims$`fraudulent claim`
x1=DatasetInsuranceClaims$`amount of compensation`
x2=DatasetInsuranceClaims$coverage
x3=DatasetInsuranceClaims$deductible
x4=DatasetInsuranceClaims$`location size`
x5=DatasetInsuranceClaims$gender
```

To estimate the complete logistic regression model
```
mod0=glm(y ~ x1+x2+x3+x4+x5, family=binomial(link="logit")
```

To estimate the best logistic regression model
```
modLOG=step(mod0)
```

To display the output of the logistic regression model
```
summary(modLOG)
```

To make a prediction,
```
new=data.frame(x1=600, x2=1000, x3=1000, x4=3, x5="F")
pred=exp(predict(modLOG,new))/(1+exp(predict(modLOG,new)))
```