**File Name: DemoRepublic**

A political marketing firm is interested in determining the nature of voters who are undecided. The analyst is interested in predicting who the undecided voters are:

**Attribute Information:**

|  |  |
| --- | --- |
| **Variable Name** | **Description of variable** |
| Age | Age of the voter |
| HomeOwner | 1=Yes Own Home 0=No |
| Female | Yes =1, No=0 |
| Married | Yes =1, No=0 |
| HouseholdSize | Number of household members |
| Income | Income in 1000s |
| Education | In Years |
| Church | Attends services=1, No=0 |
| Undecided | Yes / No |

1. Partition of the data into Training and Test samples
2. Fit a neural network model to classify “Undecided.”
3. Discuss the changes that you made to the hyperparamters to fit the model
4. How did you improve the predictive power of the model? Comment on the confusion matrix