# Lab Exercise 6: Linear Regression

## Step 4

### Part 3

The value of the coefficient (Beta) in the model is 5.980 with a 5.068 intercept.

## Step 6

### Part 2

OLS gave slope of 5.979874 and an R-sqr of 0.9964749.

## Step 7

### Part 5

The R2 on the model is 0.7058.

### Part 8

Overall this model seems to over-predict. More specifically, as “true y” increased, it transitions from over-predicting to under-predicting.

## Step 8

### Part 2

R2 = 0.271736656207233 {Not very close to 1, so not very good fit metric}

|  |  |  |  |
| --- | --- | --- | --- |
| **Household Income** | **Gender** | **Age** | **Employment** |
| **Coefficients (Betas)** | | | |
| 7. 14174106103246 | 0.331982726331937 | 0.0384038510178237 | 1.03621785340692 |
| **std\_err** | | | |
| 0.0249899097558928 | 0.00608627029910724 | 0.000459704678752527 | 0.0073035154989572 |
| **t\_stats** | | | |
| 285.784988052963 | 54.5461686742098 | 83.5402657245907 | 141.879325587091 |
| **p\_values** | | | |
| 0 | 0 | 0 | 0 |