**Simple Linear Regression**

1. **Simple Linear Regression between Price and Sqft\_living:**

* Coefficient found to be 280 which is tell the average value of house price increases by $280 for each additional square feet living.
* The RMSE values found to be $263380 and R^2 values is 0.50.

1. **Simple Linear Regression between price and bedrooms:**
   * + Coefficient found to be 123535 which is tell the average value of house price increased by $123535 for each additional bedrooms.
     + Intercept is 126751, indicates that, for houses within the range of bedrooms observed, $126,751 is the portion of the house price not explained by number of bedrooms
     + The RMSE value found to be $330690 and R^2 value is 0.07
2. **Simple Linear Regression between price and bathroom:**

* Coefficient found to be 248830 which is tell the average value of house price increased by $ 248,830 for each additional bathrooms.
* Intercept is 14640, indicate that, for house within the range of bathroom observed,

$ 14640 is the portion of the house price not explained by number of bathroom.

* The RMSE value found to be $307,726 and R^2 values is 0.28.

1. **Simple Linear Regression between price and floor:**

* Coefficient found to be 175800 which is tell the average value of floors increased by $175,800 for each additional floors.
* Intercept is $ 275,751, indicate that, for house price within the range of floor observed, $275,751 is the portion of the house price not explained by number of floors.
* The RMSE value found to be $ 360,139 and R^2 values is 0.06

**Milt linear Regression**

Multiple linear regressions between Price and Sq. Feet, Bedrooms, Bathroom, Floor

RMSE value is $244,892

R^2 value is 0.49

**Logistic Regression for Bank Personal Loan modeling dataset:**

* Here P values based (p>0.05) Except “Age”,”Experience” and “Mortgage” are greater than 0.05
* So that remaining “CCAvg”, “Securities Account” are Significantly important for getting ”Personal Loan”
* Most Significantly important independent Features are “income”,”Family”,”Education”, “CDAccount”,”Online” and “Credit Card” .

**Logistic Regression for Attrition dataset:**

* **The P values based (p>0.05) Except ” BusinessTravel”,”DistanceFromHome”,”Education “,”Gender”, ”Job Level”, “PercentSalaryHike”,”StockOptionlevel”,”YearAtCompany” are greater than 0.05**
* **So that other remaining “Department”,”EducationField”,”Job Role”,”Montly Income” are significantly impact on the Attritions.**
* **Most significant impact factor Attritions are “Age”, ”Marital Status”, ”NumCompaniesWorked”, ”TotalWorkingyears”, “TrainingTimesLastYear”, “YearSinceLastProgram”, “YearswithCurrManager”.**