



# Team 7 Final Presentation

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# Background



It is common knowledge that the tech industry has become increasingly more competitive over the last few decades with the advent of the internet, more powerful computers, and a gross majority of businesses transitioning to a more technologically advanced method of operation.



# Research Question

How do demographic factors such as education, race, gender, and level of experience affect someone's base salary in the tech industry?



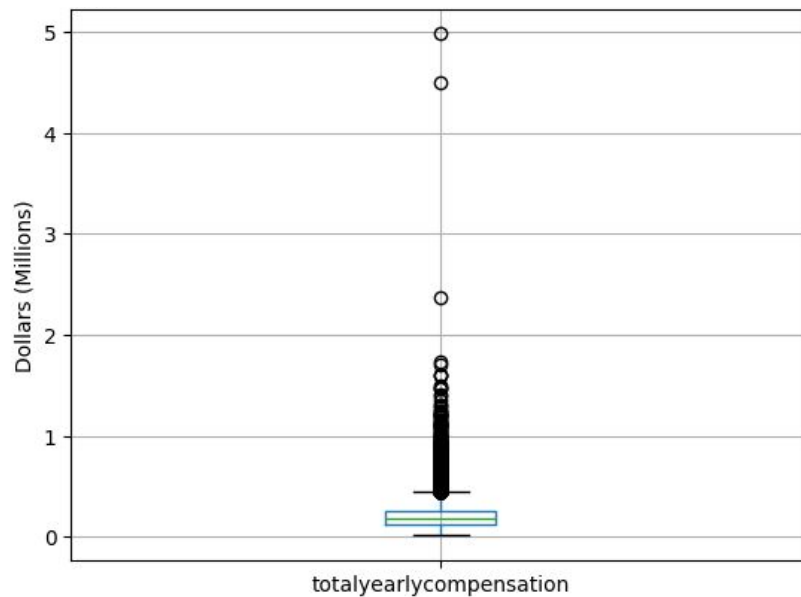
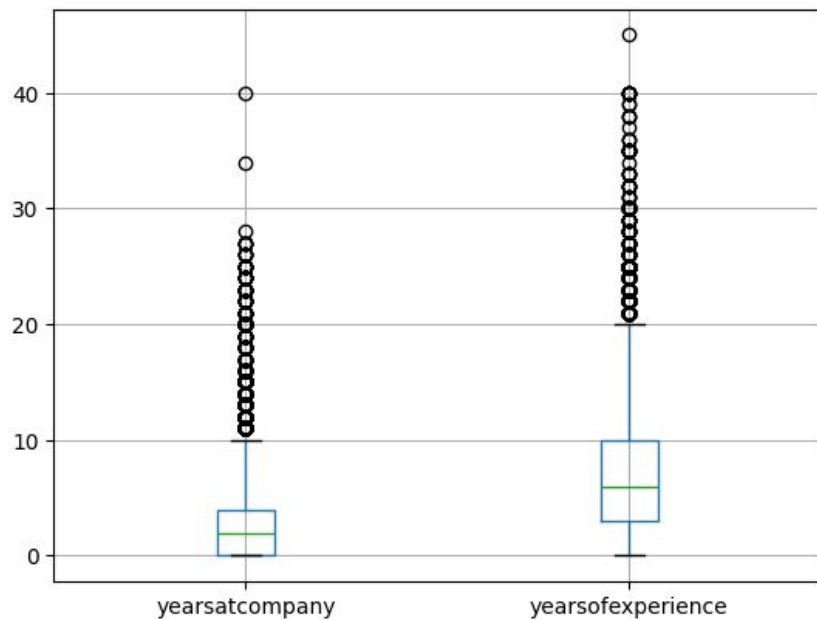


# Stakeholders

- Current Employees at Tech Companies
- Prospective Employees in the Tech Industry
- Tech Companies



# Outliers





# Missing Values

- Gender: 19540
- Race: 40215
- Education: 32272
- Years of Experience: N/A
- Years at Company: N/A
- Total Yearly Compensation: N/A

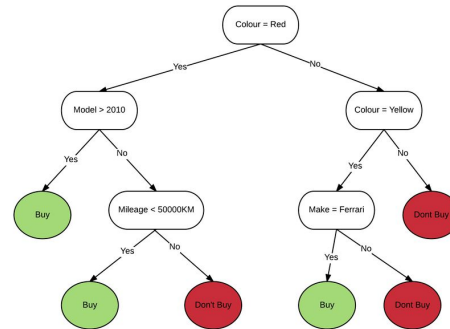
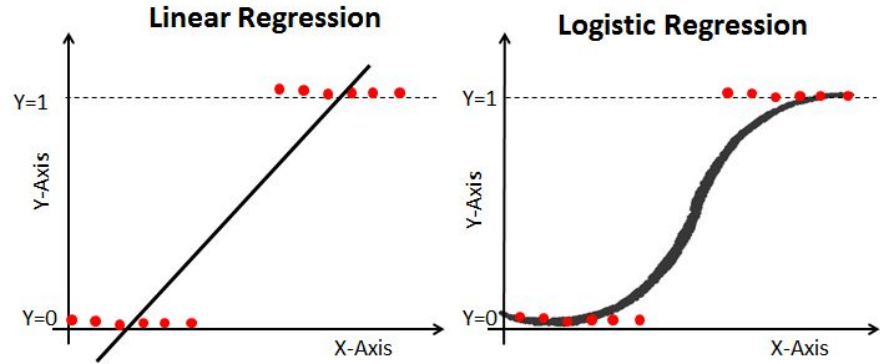
	Survived	Age	Fare
0	1.0	22.0	7.250
1	0.0	0.0	0.000
2	0.0	26.0	7.925
3	0.0	0.0	53.100
4	0.0	35.0	8.050
...	...	...	...
886	0.0	27.0	13.000
887	1.0	19.0	30.000
888	0.0	0.0	23.450
889	1.0	26.0	30.000
890	0.0	32.0	7.750

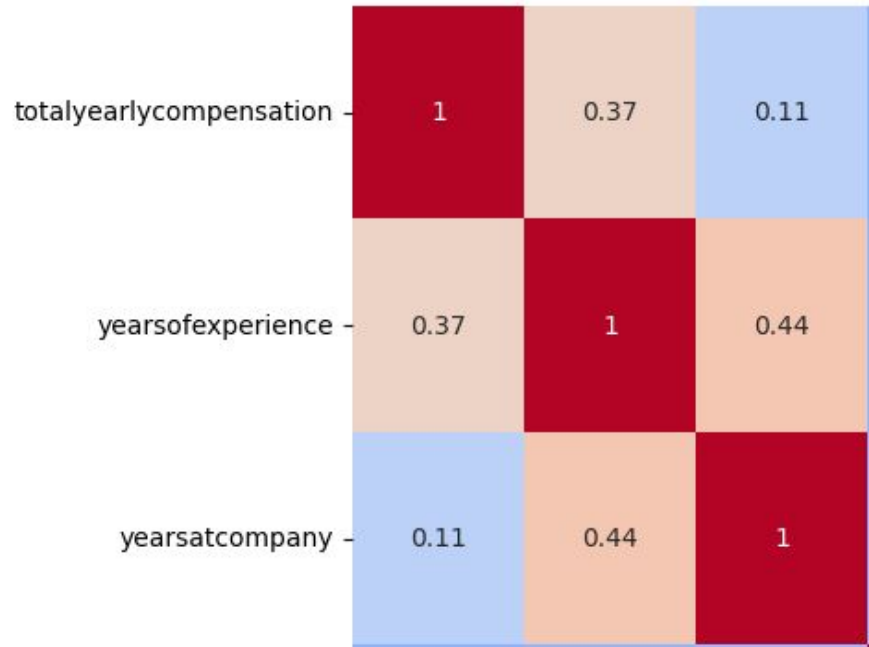
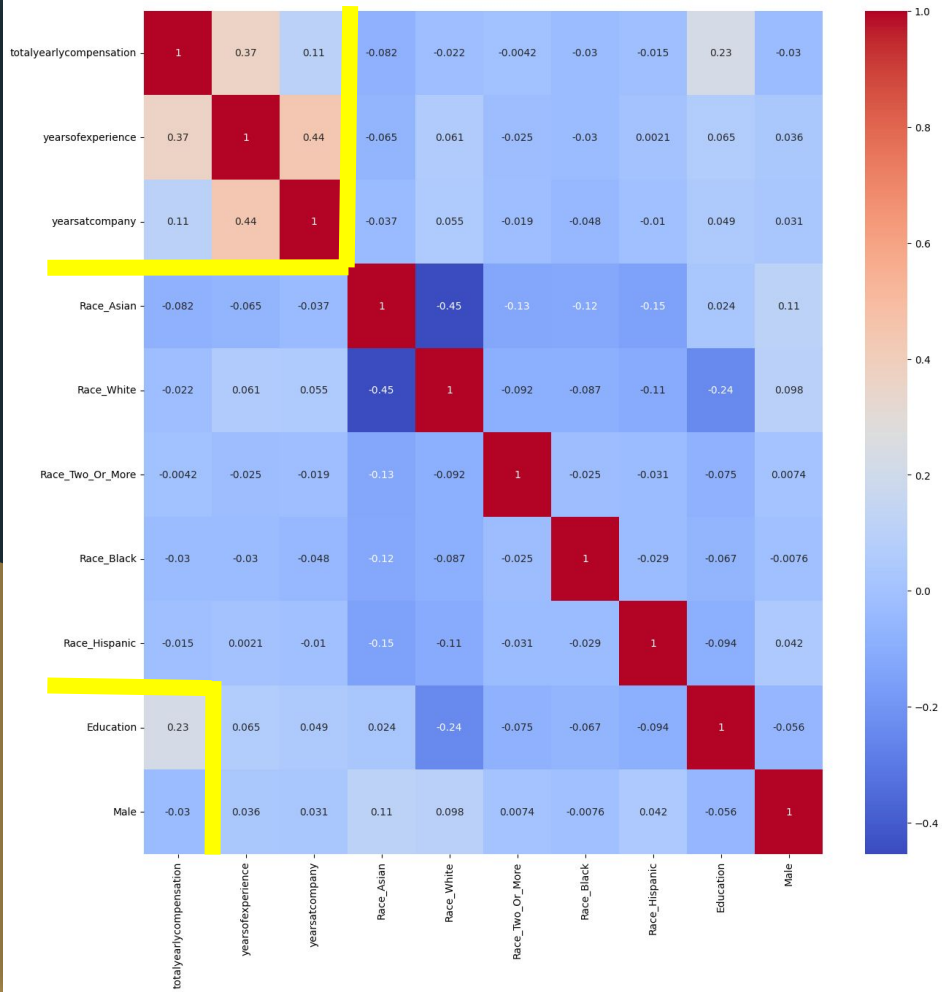
891 rows × 3 columns



# Model Selection

- Linear Regression - Best Choice
  - Targets quantitative variables
  - Data shows linear trends from preliminary observations.
- Logistic Regression - Poor Choice
  - Targets categorical variables
- Decision Tree - Poor Choice
  - Targets categorical variables

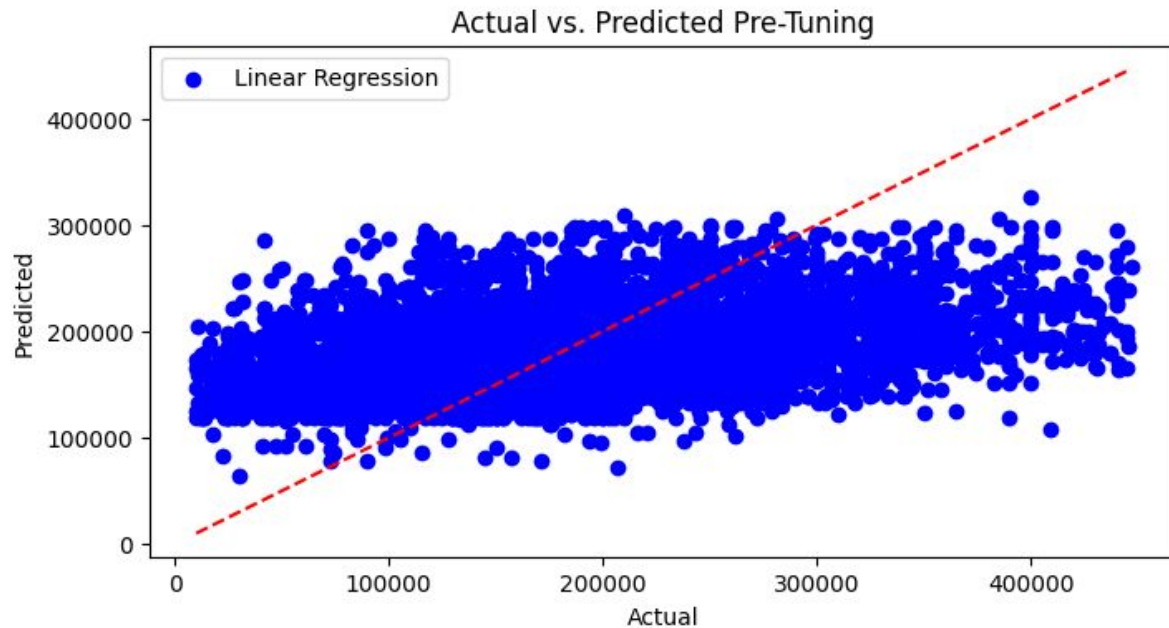






# Model Information

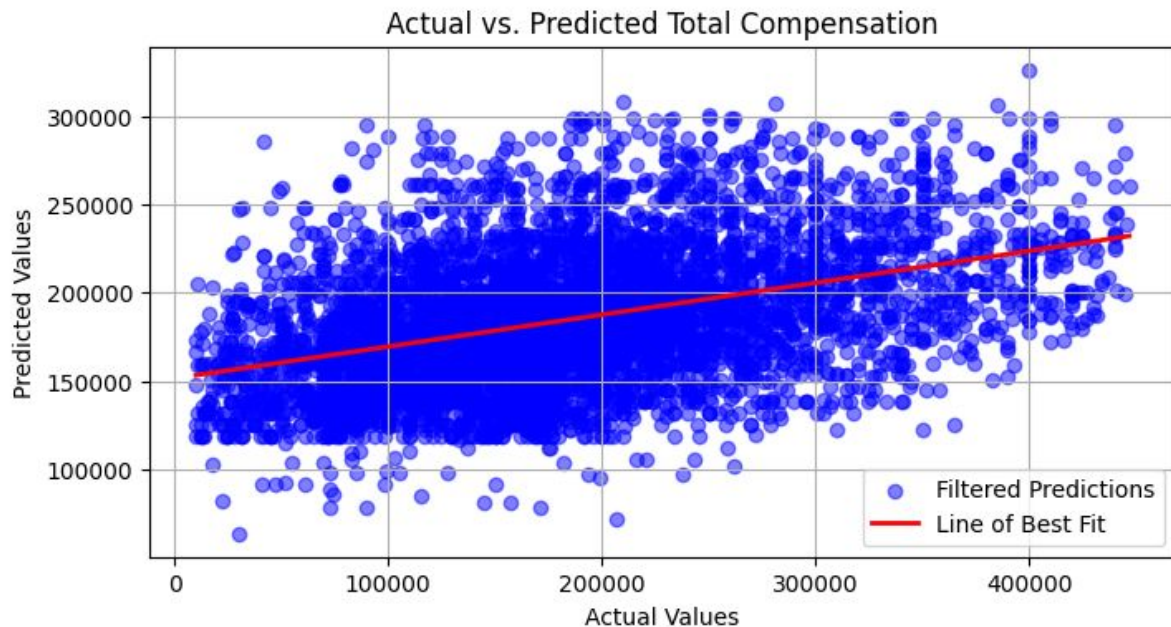
- R-Squared:  
0.187
- Durbin Watson:  
2.008
- Mean Squared:  
6.7149e9





# Model Tuning

- Ridge Regression
- Z-Score Filtering
  
- MSE (Linear):  
6.717e9
- MSE (Ridge):  
6.714e9





# Limitations and Concerns

- Model is not very accurate.
- Dataset is not the highest quality.
- Does not take into account other factors such as location or the varying sizes of companies.



# What's Does This Mean?

- Model can assist both employees and employers in predicting pay
- Allows prospective employees to speculate what they are worth.
- Further adjustments can be made to increase accuracy.



Questions?