

A decorative graphic on the left side of the slide consisting of two overlapping parallelograms. The front one is blue and the back one is a light green. They are positioned diagonally, with the blue one partially covering the green one.

IBM Employee Attrition

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Overview and Business Understanding

IBM and its HR department shares characteristics and attrition data of employees

IBM would like to understand the relationship between these features and employee attrition.

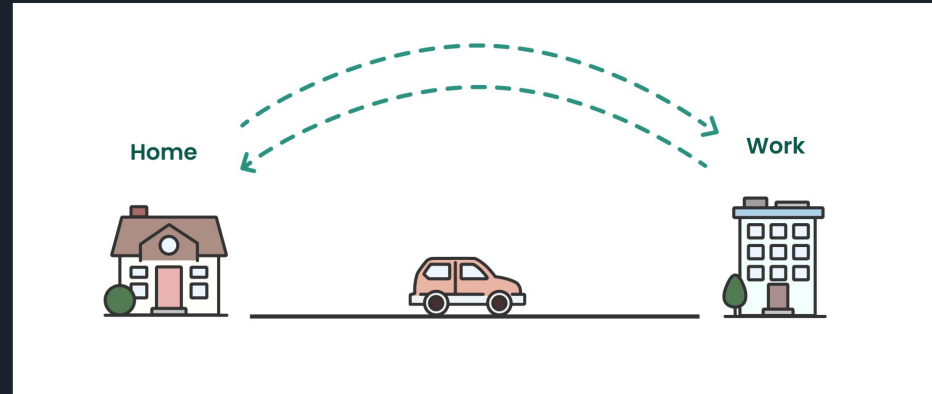
Business Questions

- What features **increase** an employee's likelihood to leave IBM the most?

- Number of Companies Worked



- Distance from Home



Business Questions

- What features **reduce** an employee's likelihood to leave IBM the most?
 - Total Working Years
 - Job Level
 - Years in Current Role

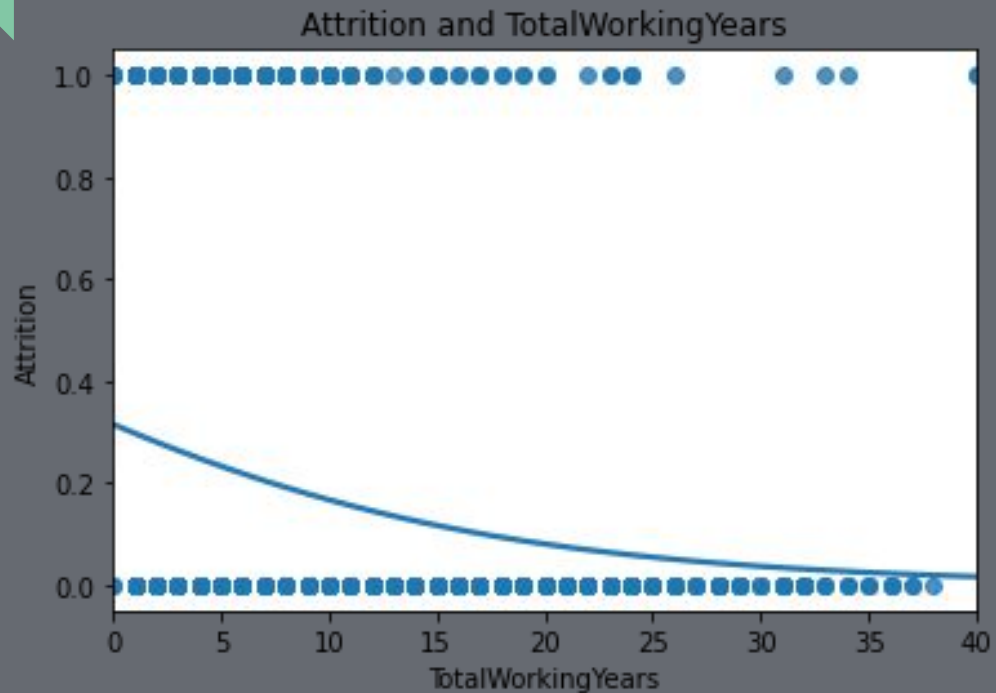




Data Understanding and Analysis

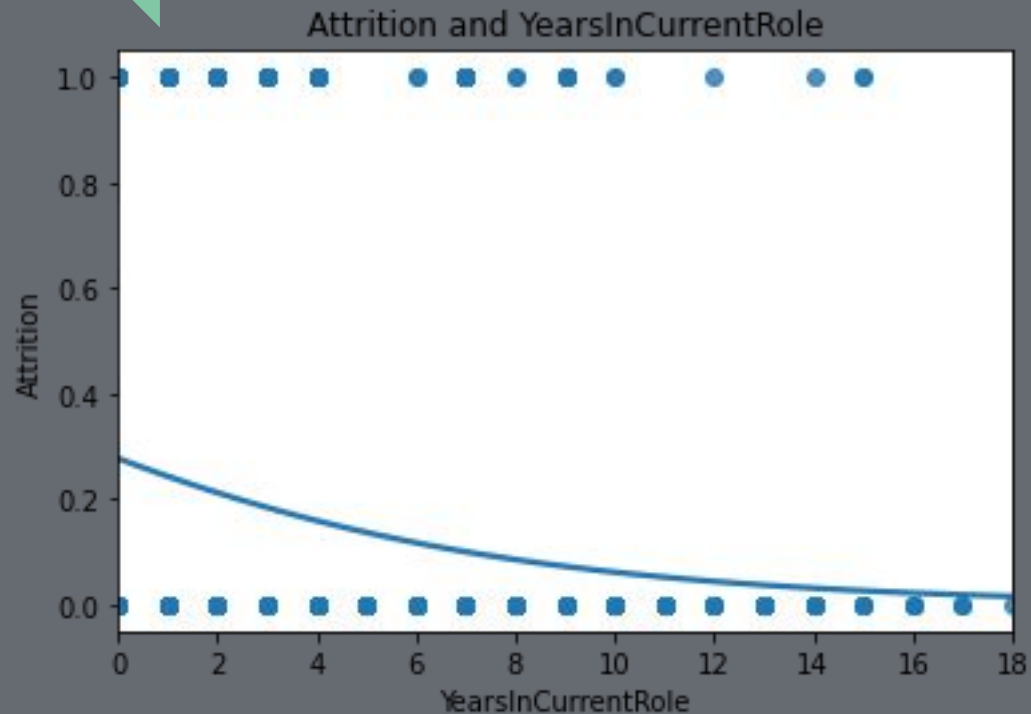
- Of the 35 total features, 5 of the most relevant:
 - **Total Working Years**
 - **Years in Current Role**
 - **Job Level**
 - **Number of Companies Worked**
 - **Distance from Home**

Data Understanding and Analysis



- Line shows:
 - Increase in Total Working Years
 - Decrease in Attrition

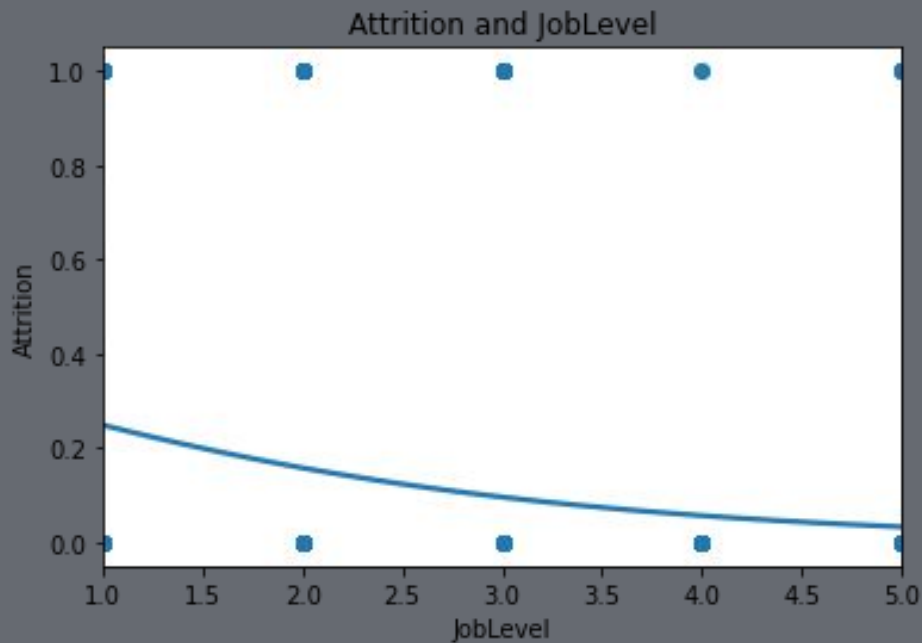
Data Understanding and Analysis



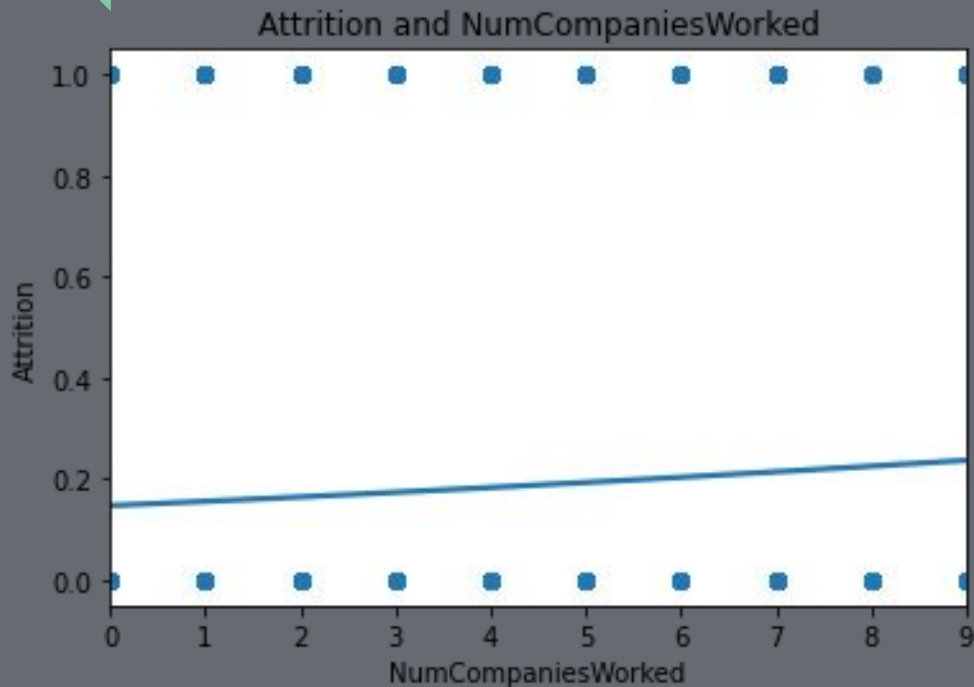
- Line shows:
 - Increase in Years in Current Role
 - Decrease in Attrition

Data Understanding and Analysis

- Line shows:
 - Increase Job Level
 - Decrease in Attrition



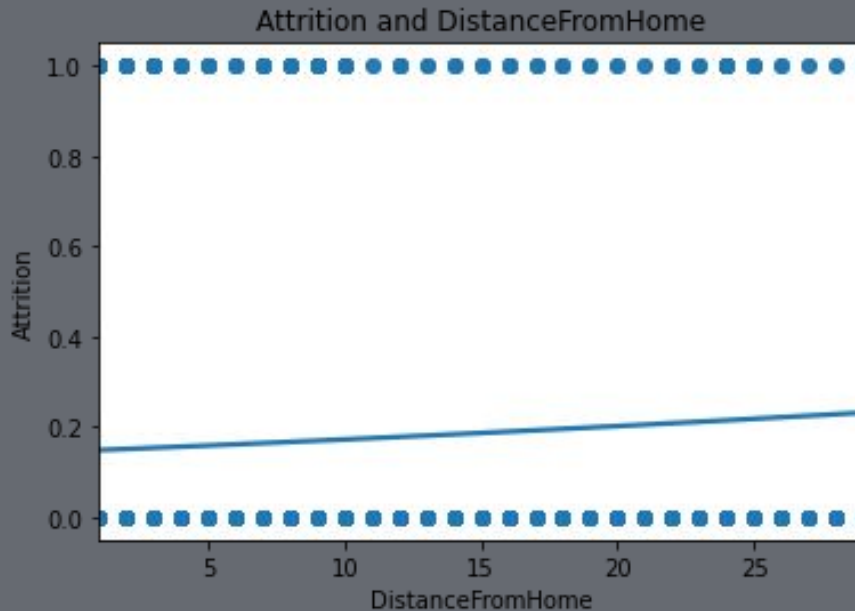
Data Understanding and Analysis



- Line shows:
 - Increase in Years in Number of Companies Worked
 - Increase in Attrition

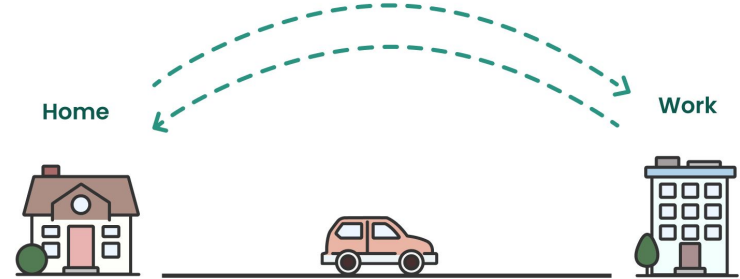
Data Understanding and Analysis

- Line shows:
 - Increase Distance from Home
 - Increase in Attrition



Recommendations

- Incentivize employees who have worked a high number of companies to stay at IBM.
- Incentivise employees to move closer to their place of work, perhaps through relocation packages.



Recommendations

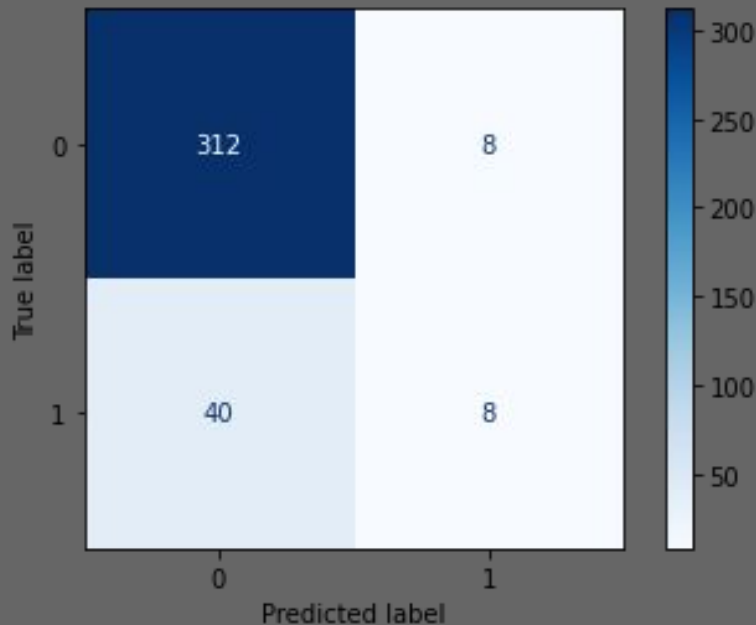
- Incentivize longevity with the company, perhaps through stock or other perk options
- Maintain pathways of upward mobility for employees.



Model Accuracy

Predicted: No Attrition
Actual: No attrition
(True Negative)

Predicted: No Attrition
Actual: Attrition
(False Negative)



Predicted: Attrition
Actual: No attrition
(False Positive)

Predicted: Attrition
Actual: Attrition
(True Positive)



Next Steps

- Features overall did not show high correlation with attrition.
- Looking at different data and asking different questions in IBM's surveys may produce more fruitful results.



Thank you

I would be happy to answer any questions

You may find my contact information below:

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