

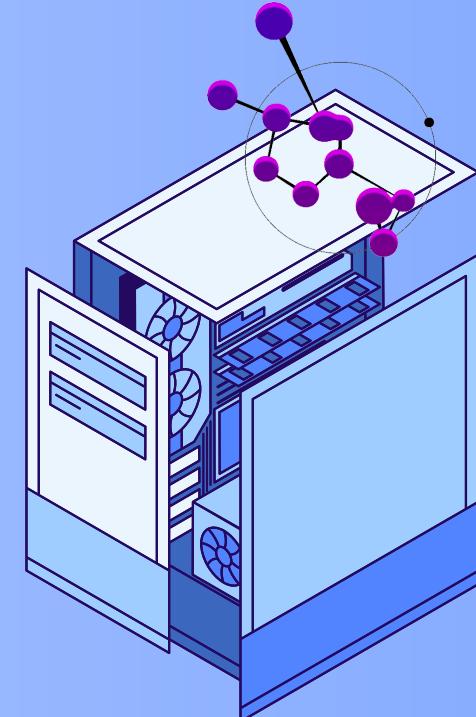
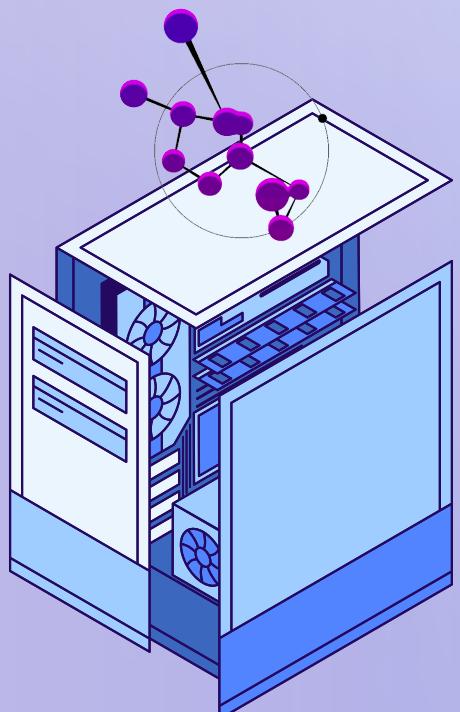


SALARY PREDICTION BASED ON EXPERIENCE

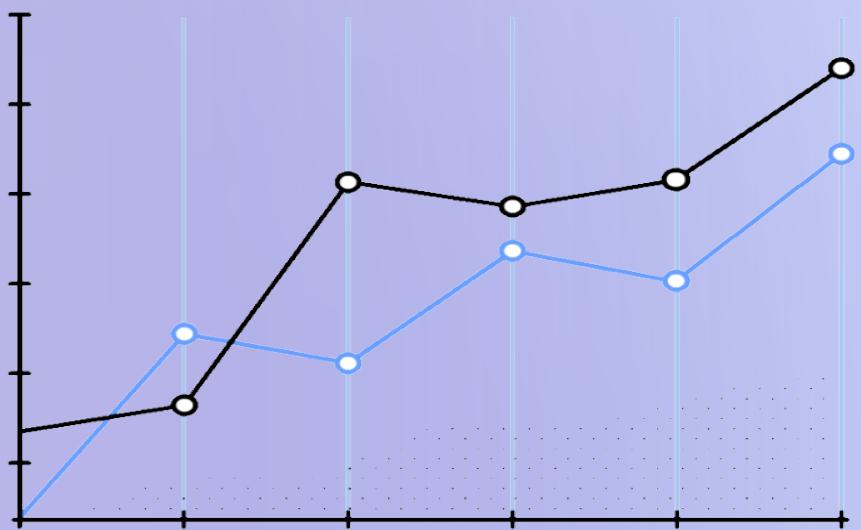


PROBLEM STATEMENT

- Companies need to predict salaries for new employees.
- Experience is a key factor in determining salary.
- Our goal is to build a model that predicts salary based on years of experience.



DATASET OVERVIEW



Feature:

Input: Years of Experience

- No missing values
- Clean and ready to use

Output: Salary

	YearsExperience	Salary
0	1.1	39343.0
1	1.3	46205.0
2	1.5	37731.0
3	2.0	43525.0
4	2.2	39891.0

MODEL USED

- **Algorithm:** Linear Regression
- **Why?** Perfect for simple numeric prediction problems



BEFORE TRAINING



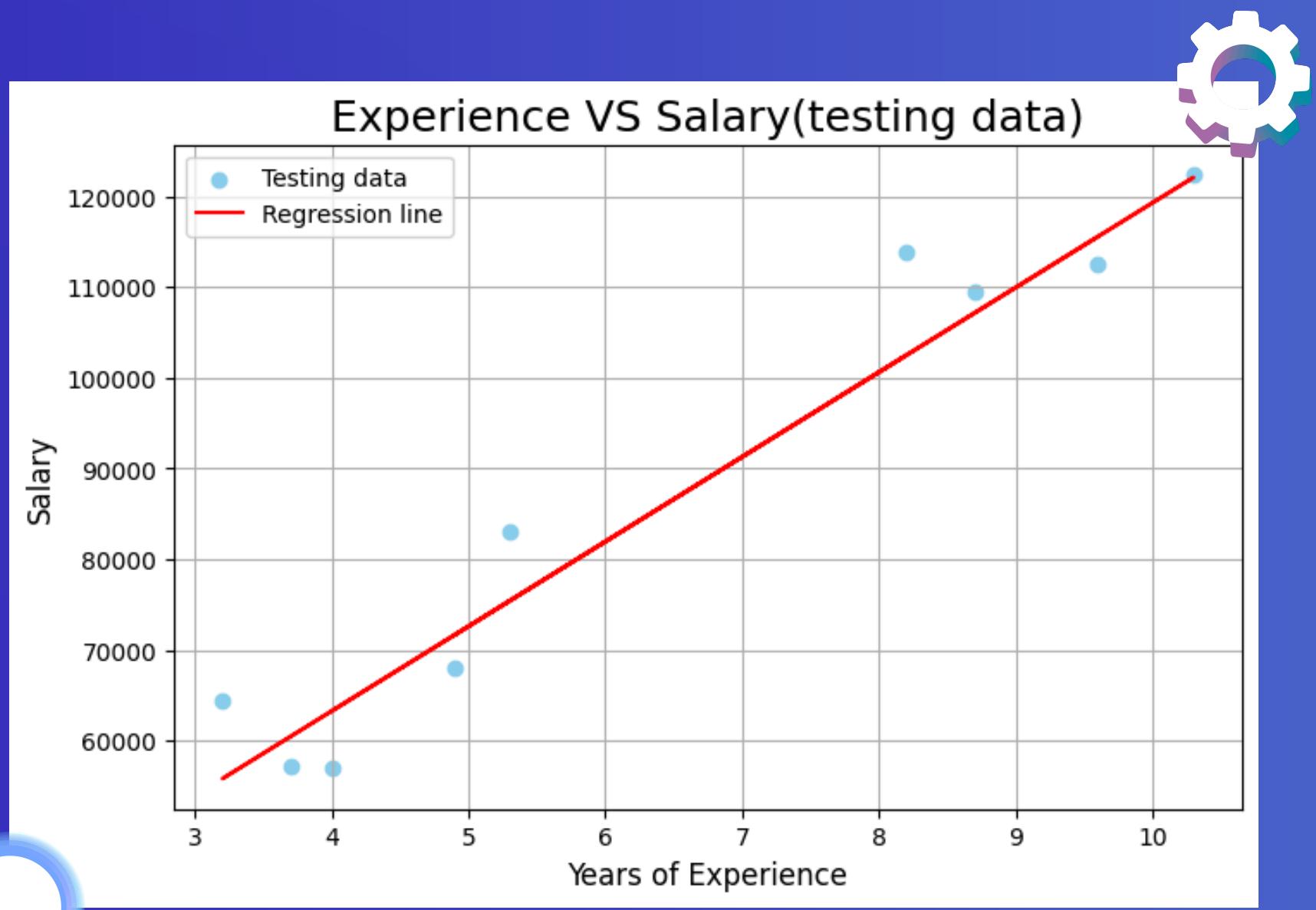
- Plotted a scatter chart to examine the relationship
- Found a positive linear correlation
- Gave us confidence to move forward with Simple Linear Regression as our model

TRAINING PROCESS



- Trained the model on 70% of the data
- Model tries to minimize the error between the points and the line
- Result: strong fit on training data

EVALUATION RESULTS



- Used 30% of the data for testing
- Most points are close to the line which means good generalization
- Model performs well on unseen data

CHALLENGES, SOLUTIONS AND FUTURE WORK

- **Challenges:** small dataset, overfitting risks
- **Solutions:** train/test split, visual analysis
- **Future work:** add more features like education, job title..etc

DEMONSTRATION OF THE CODE

Now that we've covered the key concepts and results, let's take a quick look at the code to see how everything was implemented step by step.



THANK YOU!

Group Number 2

Students:

Lina Alsidran
Layali Alqahtani
Ghaida Alsalamah
Danah Alsayari
Haneen Aldawood
Bushra Alshulail