1. **Effort Prediction using Linear Regression**
   * The author used **Linear Regression** to estimate **effort** in person-months for software development projects.
   * The dataset used was **Desharnais dataset**, which includes factors such as **Team Experience, Manager Experience, Year-End, and Project Length**.
2. **Model Training & Evaluation**
   * Trained the model using **Linear Regression** with selected features:
     + TeamExp (Team Experience)
     + ManagerExp (Manager Experience)
     + YearEnd (Year of project completion)
     + Length (Project duration in months)
   * The model was evaluated using:
     + **Mean Squared Error (MSE):** 5,952,319.31
     + **Root Mean Squared Error (RMSE):** 2,439.74
     + **Mean Absolute Error (MAE):** 1,975.13
     + **R-squared (R²):** **0.5335** (53.35% accuracy)
   * The **equation of the model**:

Effort = −2212.38 + (129.69∗TeamExp) + (−63.46∗ManagerExp) + (25.49∗YearEnd) + (419.08∗Length) Effort = - 2212.38 + (129.69 \* TeamExp) + (-63.46 \* ManagerExp) + (25.49 \* YearEnd) + (419.08 \* Length)

Effort = −2212.38 + (129.69∗TeamExp) + (−63.46∗ManagerExp) + (25.49∗YearEnd) + (419.08∗Length)

1. **Key Model Adjustments**
   * The initial model had **low accuracy** (~45%), so I **reduced the number of features**.
   * After reducing features, **R² increased to 53.35%**, indicating **better predictive power**.
   * The **effort estimation model is now focused only on the four most relevant features**.
2. **Potential Improvements**
   * **Adding more data** or **new features** such as:
     + **Lines of Code (LOC)**
     + **Defects/Bugs Count**
     + **Team Size**
     + **Number of Features**
   * These could improve prediction accuracy further.