**Conclusion**

we are preprocessing our data like filter non-available data to be ready to use it, make correlation to all data and use useful feature. We used cross validation on our data . models are we use Knn Regression, Lasso Regression, Linear Regression, Polynomial Regression, Ridge Regression and support vector machine regression . the best model gives us better accuracy is … model the MSE is …

**Trial**

1. **Linear Regression**

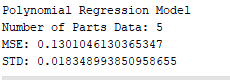
When we use Linear Regression model using cross validation when we split our data to **5** parts we got this results.

**A screenshot of a cell phone

Description automatically generated**

1. **Polynomial Regression**

When we use Polynomial Regression model with degree = 2 and using cross validation when we split our data to 5 parts we got this results .



and when we try to increase the degree the MSE increase .

EX: When degree = 3 results

A screenshot of a cell phone

Description automatically generated

1. **Ridge Regression**

When we use Ridge Regression model with alpha = 0.01 using cross validation when we split our data to **5** parts we got this results .

**A picture containing screenshot

Description automatically generated**

1. **Lasso Regression**

When we use Lasso Regression model with alpha = 0.01 using cross validation when we split our data to **5** parts we got this results .

**A screenshot of a cell phone

Description automatically generated**

1. **KNN Regression**

When we use Ridge Regression model with K = 10 using cross validation when we split our data to **5** parts we got this results .

**A screenshot of a cell phone

Description automatically generated**