**FODS ASSIGNMENT 2 REPORT**

Group Members: -

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2017A7PS0180H – Siddharth Jain

2017A1PS1100H – Dharesh Vatsa

For polynomial model of degree of 2,

1.Sum of Squares of error=51068929.58081114

2.RMSE=19.784938154623884

3.R2=0.01976295404808559

For polynomial model of degree of 3,

1.Sum of Squares of error=50511080.688171685

2.RMSE=19.6765815449565

3.R2=0.030676923410893675

For polynomial model of degree of 4,

1.Sum of Squares of error=49998124.07594708

2.RMSE=19.576415517605966

3.R2=0.04143891249939691

For polynomial model of degree of 5,

1.Sum of Squares of error=49531661.38171544

2.RMSE=19.48448142165141

3.R2=0.052278347708961115

For polynomial model of degree of 6,

1.Sum of Squares of error= 49136924.790352255

2.RMSE= 19.407084909889583

3.R2= 0.062180263773503386

The polynomial model with degree 6 is the one which best fits the data because its RMSE is minimum.