

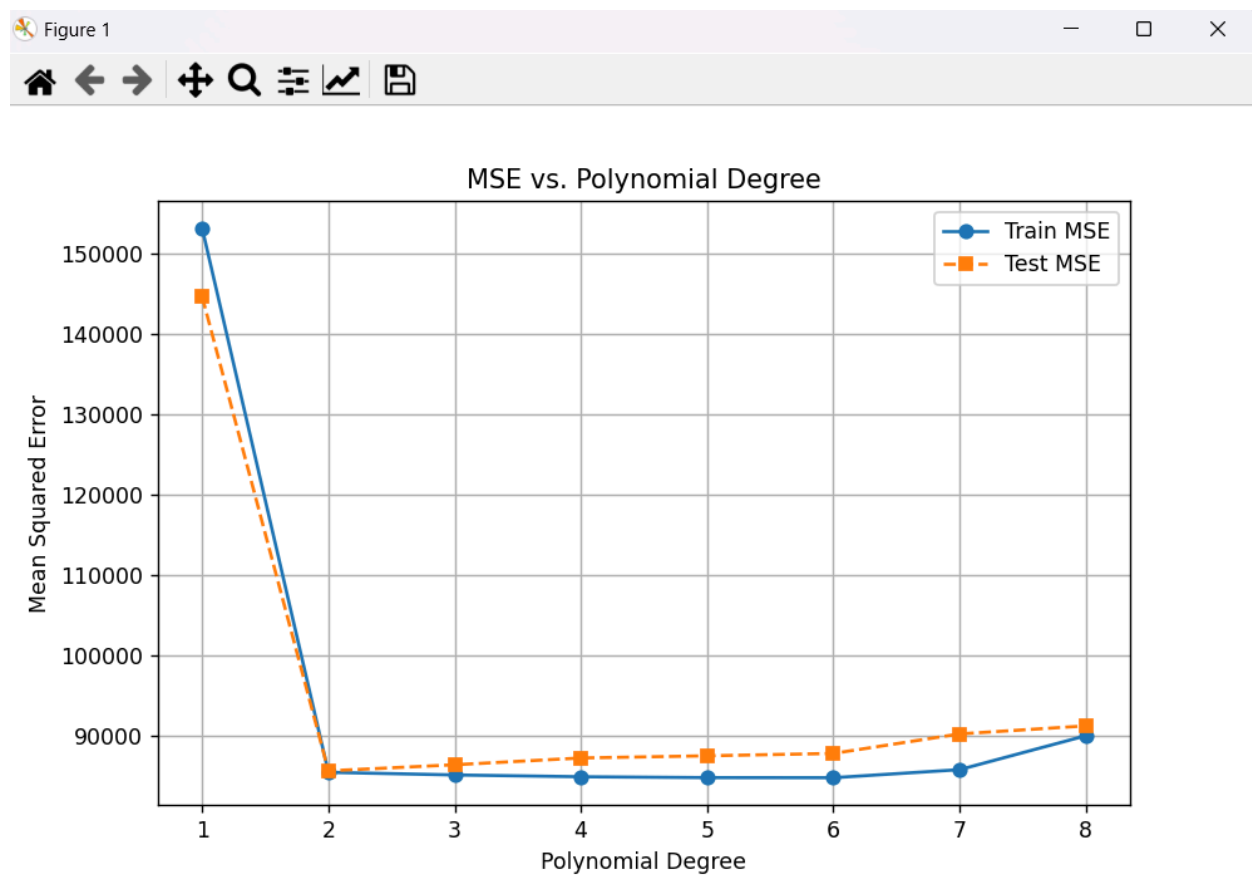
# Polynomial regression Assignment

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Conclusion: best degree is 2 as The MSE drops significantly from degree 1 to 2, showing that adding polynomial terms improves the model, Overfitting Starts After Degree 6 as Train MSE remains low, but Test MSE starts increasing slightly from degree 6 onwards indicating that higher-degree polynomials are fitting the training data well but are losing generalization ability for unseen data.