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Statistic N Mean St. Dev. Min Max Median Pctl(25) Pctl(75)

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SalePrice 1,460 180,921.20 79,442.50 34,900 755,000 163,000 129,975 214,000

LotArea 1,460 10,516.83 9,981.26 1,300 215,245 9,478.5 7,553.5 11,601.5

GarageArea 1,460 472.98 213.80 0 1,418 480 334.5 576

dLotShapeRegular 1,460 0.63 0.48 0 1 1 0 1

dOverallQual1 1,460 0.001 0.04 0 1 0 0 0

dOverallQual2 1,460 0.002 0.05 0 1 0 0 0

dOverallQual3 1,460 0.01 0.12 0 1 0 0 0

dOverallQual4 1,460 0.08 0.27 0 1 0 0 0

dOverallQual6 1,460 0.26 0.44 0 1 0 0 1

dOverallQual7 1,460 0.22 0.41 0 1 0 0 0

dOverallQual8 1,460 0.12 0.32 0 1 0 0 0

dOverallQual9 1,460 0.03 0.17 0 1 0 0 0

dOverallQual10 1,460 0.01 0.11 0 1 0 0 0

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Population regression model:

Population regression model introducing a non-linear term:

Population regression model introducing dummy variable specification:

Population regression model introducing interactions:

Formulation of research hypotheses:

H1 Garage area has a positive influence on the sale price of the house.

H2 The expected sale price of the house is higher for houses with a better overall material and finish of the house.

H3 The positive influence of lot size on sale price of the house is expected to be larger for regularly shaped houses than for irregularly shaped houses.

# **ASSIGNMENT 3**