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Demo: Producing Correlation Statistics and Scatter Plots Using the Correlation Analysis Task

Use the Correlation Analysis task to produce correlation statistics and scatter plots for the **ameshousing3** data. The goal is to identify, both visually and numerically, which predictors are linearly associated with **SalePrice**, as well as the strength of the relationship.

1. In the Navigation pane, select **Tasks and Utilities**.
2. Expand **Tasks**.
3. Expand **Statistics** and open the **Correlation Analysis** task.
4. Select the **stat1.ameshousing3** table.
5. Assign the continuous variables (**Lot_Area**, **Gr_Liv_Area**, **Bedroom_AbvGr**, **Garage_Area**, **Basement_Area**, **Total_Bathroom**, **Deck_Porch_Area**, and **Age_Sold**) to the Analysis variable role.
6. Assign **SalePrice** as the Correlate with variable.
7. On the OPTIONS tab, under STATISTICS, use the Display statistics drop-down list and choose the **Selected statistics** option and select the **Correlations** and **Display p-value** check boxes, which might already be checked, as well as **Descriptive statistics**.
8. Under PLOTS, use the Type of plot drop-down list and choose **Individual scatter plots**. Ensure that the **Include inset statistics** check box is selected, and change the Number of variables to plot to **8** to generate plots for all eight variables.
9. Click **Run**.

Generated Code

```
ods noproctitle;
ods graphics / imagemap=on;

proc corr data=STAT1.AMESHOUSING3 pearson plots=scatter(ellipse=none nvar=8 nwith=8);
   var Lot_Area Gr_Liv_Area Bedroom_AbvGr Garage_Area Basement_Area
           Total_Bathroom Deck_Porch_Area Age_Sold;
   with SalePrice;
run;
```

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