

Practice the Demo: Linear Regression in SAS Visual Statistics

1. Starting from SAS Drive, use the applications menu to proceed to **Explore and Visualize**. Click the button **Start with Data**. From the **Available** tab, scroll and find the **BASEBALL** data set. If there are two versions of this data set, please select the one that has 24 columns of data. With **BASEBALL** selected, click **OK**.
2. From the left panel, click **Objects**. Scroll down to the collection named **SAS Visual Statistics**. Double-click on the item **Linear Regression**.
3. The right panel should now be opened to the Roles section. If not, please click on **Roles**.
4. Now add variables to the following roles within the list: **Response – Log Salary**; **Continuous Effects – Career Hits, Career RBIs**; **Classification Effects – League, Division**. As elements are added, the work pane will refresh and update to reflect the options selected.
5. On the right panel, click on **Options**. Scroll down to **Influence Plot/Variable Selection Plot**. In the dropdown menu under **Plot to Show**, change this to **Influence Plot**.

Practice the Demo: Logistic Regression in SAS Visual Statistics

1. In the left panel, click **Data**. Click the Actions icon next to the dropdown menu containing **BASEBALL**. Select **Add Data**. We will now add an additional data set for this report to be able to access.
2. From the **Available** tab, scroll to find the data set **HMEQ**. You can also type into the filter box to speed up the locating of the data set.
3. Choose **HMEQ** and click **OK**.
4. **BAD** is a dichotomous variable with the value of 1 if the customer defaulted on their loan and 0 if they did not. Currently it is categorized as a measure variable. Click on the variable **BAD** and expand the two arrows to the right. Change **Classification** from **Measure** to **Category**.
5. Click the + beside the Page 1 tab to create Page 2. From the left pane, click **Objects**. Scroll down to the collection names **SAS Visual Statistics**. Double-click on the item **Logistic Regression**.
6. Now add variables to the following roles within the list: **Response – BAD**; **Continuous Effects – DEBTINC, MORTDUE**; **Classification Effects – JOB**. As elements are added, the work pane will refresh and update to reflect the options selected.

7. On the right panel, click on **Options**. Scroll down to **Influence Plot/Variable Selection Plot**. In the dropdown menu under **Plot to Show**, change this to **Influence Plot**.

Practice the Demo: Linear Regression in SAS Studio Tasks

1. Use the applications menu to proceed to **Develop SAS Code**. From the left panel, click the **Snippets** icon. Expand **SAS Snippets** and then expand **SAS Viya Cloud Analytic Services**. Double click on the **Generate SAS librefs for caslibs snippet**. Run this code by clicking the **Run** icon.
2. From the left panel, click the **Tasks** icon. Expand **SAS Tasks** and then expand **SAS Viya Statistics**. Double click on the **Linear Regression** task.
3. On the **DATA** tab, click the **Select a table** icon. In the **Libraries** panel, scroll down to the **YVA285** library. Find and select the **BASEBALL** data set and click **OK**.
4. Now add variables to the following roles within the list: **Interval Target – Log Salary**; **Interval Inputs – nHits, nRBI**; **Nominal Inputs – League, Division**.
5. From the **MODEL** tab, select **Custom model**. Click on the **Edit** button on the **Model Effects** table. Select each input variable and click **Add**. This will create a main effect only model using each of the effects. Click **OK**.
6. Click the **Run** icon.

Practice the Demo: Logistic Regression in SAS Studio Tasks

1. From the left panel, click the **Tasks** icon. Expand **SAS Tasks** and then expand **SAS Viya Statistics**. Double click on the **Logistic Regression** task.
2. On the **DATA** tab, click the **Select a table** icon. In the **Libraries** panel, scroll down to the **ROSI35** library. Find and select the **HMEQ** data set and click **OK**.
3. Now add variables to the following roles within the list: **Binary Target – BAD**; **Event of Interest – 1**; **Interval Inputs – MORTDUE, DEBTINC**; **Nominal Inputs – JOB**.
4. From the **MODEL** tab, select **Custom model**. Click on the **Edit** button on the **Model Effects** table. Select each input variable and click **Add**. This will create a main effect only model using each of the effects. Click **OK**.
5. Click the **Run** icon.