CASE 2
Data Preparation & Preprocessing

1. **Launch SAS Enterprise Miner**
   Steps: Please refer to SAS EM Installation Part 2.
   1. Sign on the Control Center at https://odamid.oda.sas.com
   2. Click SAS Enterprise Miner link which will start downloading a file (e.g., main.jnlp).
   3. Run the downloaded file (e.g., main.jnlp).
   4. If JAVA Update window appears, click Later.
   5. Click Run

2. **Opening an existing project (e.g., PA2020)**
   Steps: Click Open Project ➔ Select PA2020 ➔ Click OK

3. **Creating new diagram**
   Steps: File ➔ New ➔ Diagram (e.g., Case 2)

4. **Adding a SAS dataset to Data Sources**
   Steps: File ➔ New ➔ Data Source ➔ Source: SAS Table ➔ Click Browser ➔ Click padata ➔ Click data file (e.g., Bank_personal_loan)

5. **Adding SAS Dataset in Diagram Workspace**
   Steps: Data Sources in Project panel ➜ Move data source to Diagram panel

6. **Exploring Variables**
   Steps: Click the data source node and right click ➜ Select Edit Variables ➜
   Select all variables (Use Shift or Control key) ➜ Click Explore

7. **Changing Variable Roles & Types**
   Steps: Click the data source node and right click ➜ Select Edit Variables ➜
   Change Role and Level of variable(s) (Please refer to the class note for variable
   roles and types)

8. **Adding Impute Node**
   Steps: Modify ➜ Impute ➜ Select Mean for Default Input Method of Interval
   Variables in Property panel ➜Run

9. **Exploring Updated Data**
   Steps: Select Impute ➜ Click the ellipsis next to Exported Data in Property
   Panel ➜ Select Train ➜ Click Explore
   - Check Minimum, Maximum, and Mean for variables

10. Adding Transform Variables Node

Steps: Modify ➔ Transform Variables ➔ Select Dummy Indicators for Class Inputs and Class Targets in Property panel ➔ Run

11. Exploring Updated Data

Steps: Select Transform Variables ➔ Click the ellipsis next to Exported Data in Property Panel ➔ Select Train ➔ Click Explore
- Check new variables created by Transform Variables node.

12. Dropping Unnecessary Dummy Indicators

Steps: Modify ➔ Drop ➔ Click the ellipsis nex to Variables in Property panel ➔ Change Drop value from Default to Yes so that we can drop a variable. Drop all dummy indicators for No, Education 1, and NotAccepted (e.g., TI_CD_Account1). Note that you need to drop 6 dummy indicators.