

This is the rubric for the Course 7 capstone project. Although this capstone project is optional, you can use this rubric to review and assess your own work. The rubric grading process is an important part of the learning experience because it allows you to objectively assess your project against a set of criteria.

There are a total of 18 points for the project and 14 items in this rubric. Every rubric item has individual components worth 1 point each. The items are grouped by topic and correspond to each step you completed for the Course 7 capstone project.

To use the rubric:

Open your project notebook, executive summary, and PACE strategy document

Review each rubric item's grading criteria.

Respond to each statement by marking "yes" or "no."

When you complete and submit the rubric, you will receive a percentage score. The recommended passing grade for this project is 80% (or 14/18 points). If you want to increase your score, you can revise your project and then resubmit this rubric to reflect any changes you make.

Imports

The following rubric items assess the imports for your project.

1. Applicable packages and libraries were imported to the code notebook.

0 / 1 point

☐ Yes

☐ No

☒ Incorrect
You didn't select an answer.

2. The dataset was imported and read into the notebook using the `pd.read_csv()` function.

0 / 1 point

☐ Yes

☐ No

☒ Incorrect
You didn't select an answer.

Data Exploration

The following rubric items assess the exploratory data analysis work you completed for your project.

3. Basic information and descriptive statistics about the data were gathered using the `.info()` and `.describe()` functions, respectively.

0 / 1 point

☐ Yes

☐ No

☒ Incorrect
You didn't select an answer.

4. Steps to clean the data were considered.

0 / 1 point

☐ Yes

☐ No

☐ Incorrect
You didn't select an answer.

5. The dataset was checked for missing values, duplicates, and outliers during the exploratory data analysis process.

0 / 1 point

- ☐ Yes
☐ No

☐ Incorrect
You didn't select an answer.

Visualizations and Data Analysis

The following rubric items assess the visualizations you created for your project. Some visualizations can be generated later on in the modeling stage of the project, but they have been included in this section of the rubric for organization purposes.

For questions with checkboxes to select for partial credit, select all that apply.

6. Visualizations were created to examine variables and relationships between variables of interest. Box plots and histograms were created to visualize the distributions of variables. A scatter plot was created to visualize the correlation between a pair of variables. A heatmap was created to examine the correlations between multiple pairs of variables.

1 / 1 point

- ☒ Visualizations were created to examine variables and relationships between variables of interest.

☒ Correct

☒ Box plots and histograms were created to visualize the distributions of variables.

☒ Correct

☒ A scatter plot was created to visualize the correlation between a pair of variables.

☒ Correct

☒ A heatmap was created to examine the correlations between multiple pairs of variables.

☒ Correct

Modeling and Statistics

The following rubric items assess the modeling and statistics developed and applied for this project.

7. The type of prediction task and the types of models most appropriate for this task were identified.

1 / 1 point

☒ Yes

☐ No

☒ Correct

8. A modeling approach was selected and the corresponding model assumptions were checked if applicable. All relevant variables were considered in the feature engineering and encoding process.

1 / 1 point

☒ A modeling approach was selected and the corresponding model assumptions were checked if applicable. A heatmap can be created at this stage to check a model assumption.

☒ Correct

☒ All relevant variables were considered in the feature engineering and encoding process.

☒ Correct

9. The dataset was split into train/test sets or train/validate/test sets.

1 / 1 point

☒ Yes
☐ No

☒ Correct

10. An appropriate machine learning model was constructed, fitted, and used for prediction.

1 / 1 point

☒ Yes
☐ No

☒ Correct

11. A confusion matrix and/or a classification report were generated to evaluate the performance of the model. 1 / 1 point

- ☒ Yes
☐ No

☒ Correct

Results and Evaluation

The following rubric items assess the concluding steps of your portfolio project, including evaluation and summary of findings.

12. Model results were reported using appropriate evaluation metrics. 1 / 1 point

- ☒ Yes
☐ No

☒ Correct

13. All questions in the PACE strategy document were answered.

1 / 1 point

☒ Yes

☐ No

☒ Correct

14. An executive summary detailing the work completed, key findings, and business recommendations was created.

1 / 1 point

☒ Yes

☐ No

☒ Correct