Congratulations! You passed!

Grade received 100% **To pass** 100% or higher

Go to next item

To pass this practice quiz, you must receive 100%, or 1 out of 1 point, by completing the activity below. You can learn more about the graded and practice items in the course overview.

Activity Overview

In this activity, you will demonstrate your ability to organize, present, and share the stories within data. You will also update team members through an executive summary, demonstrating your ability to organize and communicate key information.

For additional information on how to complete this activity, review the previous readings: *End-of-course project introduction* and *Course 3 end-of-course portfolio project overview: Waze*.

Be sure to complete this activity before moving on. The next course item will provide you with completed exemplars to compare to your own work. You will not be able to access the exemplars until you have completed this activity.

Scenario

Your team is making progress on their project to develop a machine learning model to predict user churn. So far, you've completed a project proposal and used Python to inspect and organize Waze's user data.

You check your inbox and notice a new message from Chidi Ga, your team's Senior Data Analyst. Chidi is pleased with the work you have already completed and requests your assistance with Exploratory Data Analysis (EDA) and further data visualization. You also notice a follow-up email from the Director of Data Analysis, Harriet Hadzic. Harriet suggests including an executive summary of your analysis to share with teammates.

Note: *Team member names used in this workplace scenario are fictional and are not representative of Waze.*

Email from Chidi Ga, Senior Data Analyst

Subject: EDA & Data Viz

From: "Chidi Ga," Chidi@waze

Cc: "May Santner," May@waze; "Harriet Hadzic," Harriet@waze

Hi there,

Thanks for the amazing work you've done so far.

We're ready to perform EDA on our user data. Has May told you what the leadership team expects when it comes to EDA? If not, think of it as a "show your work" kind of report. They will want to see a Python notebook showing the structuring and cleaning you did, and any data visualizations you created to better understand the data. To start, I suggest you create a box plot of the variable "drives," and a scatter plot of the variables "drives" and "sessions." Feel free to add any other visuals you think are useful.

By the way, I cc'd our director, Harriet Hadzic, who is on the leadership team and will be reviewing our analysis. @Harriet, I want to keep you informed on our progress!

Thanks!

Chidi Ga

Senior Data Analyst

Waze

Email from Harriet Hadzic, Director of Data Analysis

Subject: RE: EDA & Data Viz

From: "Harriet Hadzic," Harriet@waze

Cc: ""May Santner," May@waze; "Chidi Ga," Chidi@waze

Thanks for the update, Chidi!

Welcome to the team. We're so glad to have you.

Along with the notebook, it would be really helpful if you included an executive summary of your analysis attached via email.

I appreciate your help!

Harriet Hadzic

Director of Data Analysis

Waze

Step-By-Step Instructions

Follow the instructions to complete the activity. Then, go to the next course item to compare your work to a completed exemplar.

Step 1: Access the templates

To use the templates for this course item, click each link below and select *Use Template.*

Link to templates:

- Course 3 PACE strategy document
- Executive summary templates

OR

If you don't have a Google account, you can download the templates directly from the attachments below:

Activity Template_ Course 3 PACE strategy document
DOCX File

Activity Templates_ Executive summaries
PPTX File

Step 2: Access the end-of-course project lab

Note*: The following lab is also the next course item. Once you complete and submit your end-of-course project activity, return to the lab instructions' page and click* ***Next*** *to continue on to the exemplar reading.*

To access the end-of-course project lab, click the following link and select *Open Lab.*

- Course 3 Waze project lab

Your Python notebook for this project includes a guided framework that will assist you with the required coding. Input the code and answer the questions in your Python notebook to perform EDA and create data visualizations. Here are some helpful reminders for tasks:

- Import data
- Clean data
- Explore data
- Visualize data

You will also discover questions in this Python notebook designed to help you gather the relevant information you'll need to write an executive summary for your team.

Use your completed PACE strategy document and Python notebook to help you prepare your executive summary.

Data Dictionary

This project uses a dataset called waze_dataset.csv. It contains synthetic data created for this project in partnership with Waze. Examine each data variable gathered.

The dataset contains:

14,999 rows – each row represents one unique user

12 columns

Column name	Type	Description
label	obj	Binary target variable ("retained" vs "churned") for if a user has churned anytime during the course of the month
sessions	int	The number of occurrence of a user opening the app during the month
drives	int	An occurrence of driving at least 1 km during the month
device	obj	The type of device a user starts a session with
total_sessions	float	A model estimate of the total number of sessions since a user has onboarded
n_days_after_onboarding	int	The number of days since a user signed up for the app
total_navigations_fav1	int	Total navigations since onboarding to the user's favorite place 1
total_navigations_fav2	int	Total navigations since onboarding to the user's favorite place 2
driven_km_drives	float	Total kilometers driven during the month
duration_minutes_drives	float	Total duration driven in minutes during the month
activity_days	int	Number of days the user opens the app during the month
driving_days	int	Number of days the user drives (at least 1 km) during the month

Step 3: Complete your PACE strategy document

Step 4: Prepare an executive summary

Pro Tip: Save the templates

Finally, be sure to save a blank copy of the templates you used to complete this activity. You can use them for further practice or in your professional projects. These templates will help you work through your thought processes and demonstrate your experience to potential employers.

What to Include in Your Response

Later, you will have the opportunity to assess your performance using the criteria listed below. Be sure to address the following elements in your completed activity.

Course 3 PACE strategy document:

- Answer the questions in the PACE strategy document

Course 3 Waze project lab:

- Perform Exploratory Data Analysis (EDA)
- Create data visualizations

Course 3 visualization:

- Create a scatterplot to enhance the visualization created with Python

Course 3 executive summary:

- Provide a summary of the results of your exploratory data analysis (EDA)

1. **Did you complete this activity?** 1 / 1 point

- (•) Yes
- ( ) No

Correct
Thank you for completing this activity! Using Python to perform EDA to create data visualizations are key parts of data work. Further, effectively communicating your findings with an executive summary is an important skill for any data professional. Go to the next course item to compare your work to completed exemplars.