



Mohammed Salf Shaeerah &lt;mohammedsalfsha.2000@gmail.com&gt;

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## First Project Done!

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**WorldQuant University** <no-reply@wqu.edu>

Tue, Jan 24, 2023 at 10:10 AM

To: Mohammed Salf Shaeerah &lt;mohammedsalfsha.2000@gmail.com&gt;



Dear Mohammed Salf Shaeerah,

Congratulations on completing your first data science project on your path toward gaining these much sought skills.

Think of it, now you can:

- Load data into a pandas DataFrame
- Clean and combine messy data
- Examine the relationship between variables using correlation.
- Create insightful visualizations like histograms, scatter plots, and bar charts.

It's an achievement, and we encourage you to put your new tools and skills to use, building on them as you navigate through your next projects.

Keep up the good work!

All the best,

WQU Team

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Mohammed Salf Shaeerah &lt;mohammedsalfsha.2000@gmail.com&gt;

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## Congratulations!

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**WorldQuant University** <no-reply@wqu.edu>

Tue, Jan 31, 2023 at 11:53 AM

To: Mohammed Salf Shaeerah &lt;mohammedsalfsha.2000@gmail.com&gt;



Dear Mohammed Salf Shaeerah,

Congratulations on completing your second data science project on your path toward gaining these much sought skills.

Think of it, now you can:

- Load multiple CSV files into a pandas DataFrame
- Clean messy data with a wrangle function
- Create a machine learning pipeline with feature encoding and imputation
- Create insightful visualizations like a Mapbox scatter plot, a heatmap, and a bar chart for model coefficients

It's an achievement, and we encourage you to put your new tools and skills to use, building on them as you navigate through your next projects.

Keep up the good work!

All the best,

WQU Team

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## You did it!

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**WorldQuant University** <no-reply@wqu.edu>

Mon, Feb 6, 2023 at 2:27 PM

To: Mohammed Salf Shaeerah &lt;mohammedsalfsha.2000@gmail.com&gt;



Dear Mohammed Salf Shaeerah,

Congratulations on completing Project 3!

This project was packed with new skills that you've mastered. Now you can:

- Get data from a **MongoDB** database
- Explore and clean **time series** data.
- Build **autoregression models**.
- Tune **hyperparameters**.

If you're interested in exploring air quality datasets in other parts of Africa, I recommend you check out the datasets at [openAfrica](#).

Of course, I can't wait to see you in Project 4, where we'll travel to Nepal and build a model to predict earthquake damage.

Happy data science,

Nicholas & the DS Lab Team

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## Halfway done!

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**WorldQuant University** <no-reply@wqu.edu>

Sat, Feb 11, 2023 at 3:02 PM

To: Mohammed Salf Shaeerah &lt;mohammedsalfsha.2000@gmail.com&gt;



Way to go, Mohammed Salf Shaeerah!

You've now completed four projects. That means you're halfway done with the Applied Data Science Lab. As Nicholas always says, give yourself a pat on the back for all your hard work. You should be proud of yourself.

Here are some things that you can do now you've completed Project 4:

- Extract data from a SQL database
- Perform a randomized train-test split
- Build a logistic regression model for classification
- Build a decision tree model for classification
- Tune model hyperparameters

When you're ready for Project 5, you've already been enrolled. You'll build on the classification and tuning skills you've learned so far to create a model to predict whether a company will go bankrupt.

Keep on coding,

Your Friends in the DS Lab

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## Congratulations on Project 5 !

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**WorldQuant University** <no-reply@wqu.edu>

Fri, Feb 17, 2023 at 10:12 AM

To: Mohammed Salf Shaeerah &lt;mohammedsalfsha.2000@gmail.com&gt;



You've done it again, Mohammed Salf Shaeerah!

Congratulations on finishing Project 5. Here are some of the new skills you've learned:

- Navigate a file system using the command line
- Load and save files using Python
- Work with imbalanced data using resampling
- Build ensemble models like random forest and gradient boosting trees
- Evaluate a classification model using precision and recall

When you're ready, Project 6 will be waiting for you. In it, you'll learn about **unsupervised learning** by doing segmentation for consumers in the United States.

Looking forward to seeing you there,

Nicholas and the Data Nerds

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Mohammed Salf Shaeerah &lt;mohammedsalfsha.2000@gmail.com&gt;

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## Project 6 Done!

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WorldQuant University &lt;no-reply@wqu.edu&gt;

Fri, Feb 24, 2023 at 10:47 AM

To: Mohammed Salf Shaeerah &lt;mohammedsalfsha.2000@gmail.com&gt;



Amazing, Mohammed Salf Shaeerah!

You've completed Project 6. You're doing great. Just think of all the things you can do now! You can:

- Conduct complex exploratory data analysis on one of the biggest datasets in the DS lab, and compare sub-populations using a **side-by-side** bar chart.
- Apply key concepts of **unsupervised learning** into practice by building an **k-means model**.
- Conduct **feature selection** for clustering based on **variance**.
- Reduce high-dimensional data using **principal component analysis (PCA)**.
- Design, build and deploy a Dash **web application**.

Let me ask you a question: When you started at the Applied Data Science Lab, did you ever imagine you'd build your own data web application? Well, just imagine what you'll be able to do once you complete the last two projects. You're almost there!

See you soon,

Nicholas & the DS Lab Teaching Team

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## One more to go!

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**WorldQuant University** <no-reply@wqu.edu>

Wed, Mar 8, 2023 at 11:17 AM

To: Mohammed Salf Shaeerah &lt;mohammedsalfsha.2000@gmail.com&gt;



Time to put on your cool kid glasses Mohammed Salf Shaeerah,

You've completed Project 7. Incredible! Now you can:

- Build a **choropleth map** to show the distribution of ADSL students around the world.
- Create a **custom Python class** to implement **ETL processes**.
- Design an experiment and analyze the results using a **chi-square test**.
- Build an interactive web application that follows a **three-tiered design pattern**.

Now there's just one project left. Are you excited? I can't wait to see you there.

Keep on coding,

Nicholas & the Data Doo-wop Singers, er, I mean Scientists ;)

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## You did it! Project 8 is done.

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**WorldQuant University** <no-reply@wqu.edu>

Fri, Mar 31, 2023 at 11:52 PM

To: Mohammed Salf Shaeerah &lt;mohammedsalfsha.2000@gmail.com&gt;



You've done it, Mohammed Salf Shaeerah!

You've completed Project 8. Now you can:

- Get data from a web API by making **HTTP requests**.
- Transform and load data to a **SQL database** using **custom Python classes**.
- Calculate **asset volatility** and build a **GARCH model** to predict it.
- Build your own **web API and server** to serve your model's predictions.

What's even more exciting is you've **COMPLETED THE APPLIED DATA SCIENCE LAB!** You should be very proud of yourself.

You will soon receive two more emails from me. The first will be a confirmation that you've completed the DS Lab. The second will be an email from Credly, asking you to create an account and claim your digital credential. This is the badge that you can share with folks to show them everything you've learned.

It's been an honor,

Nicholas and the whole WQU team

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