D603 - Machine Learning
RFN1 Task 3: Time Series Modeling
Prepared by Shanay Murdock

A. GitLab Repository

https://gitlab.com/wgu-gitlab-environment/student-repos/smurd32/d603-machine-learning/-/tree/task-3-time-series?ref_type=heads

GitLab Branch Submission History:

| task-3-time-seri... ⌄ | d603-machine-learning | | Author ⌄ | Browse files | Search by message | ⟳ |

Sep 06, 2025

Commit	Hash
A. Added note to GitLab Repo section Shanay Murdock authored 1 minute ago	6970c4f7
G. Fixed typo in markdown Shanay Murdock authored 2 minutes ago	ee702daa
G. Generated HTML export of IPYNB file Shanay Murdock authored 4 minutes ago	3716dd0b
G, H, I. Add final reporting markdown Shanay Murdock authored 5 minutes ago	f18091f8
F3. Add recommendations Shanay Murdock authored 9 minutes ago	04832c7d
F2. Annotated visualizations of forecast plots Shanay Murdock authored 12 minutes ago	d7642f56
F1. Fix formatting issue in markdown Shanay Murdock authored 16 minutes ago	1992a612
F1. Add model evaluation procedure and error metric Shanay Murdock authored 30 minutes ago	55c90c6f
F1. Add prediction interval description and justification of forecast length Shanay Murdock authored 33 minutes ago	8d1972c3
F1. Selection of an ARIMA model Shanay Murdock authored 40 minutes ago	1a70671a
E4. Add output and calculations Shanay Murdock authored 45 minutes ago	9f2c548e
E3. Forecasting Using ARIMA Models Shanay Murdock authored 48 minutes ago	f8ec5e50
E2. Run grid search to determine best SARIMA model parameters Shanay Murdock authored 1 hour ago	07675a09
E1. Add plots for spectral density, decomposition, and confirmation of lack of trends Shanay Murdock authored 1 hour ago	ba4fe320
E1. Add visualizations for differenced trends and ACF plot Shanay Murdock authored 1 hour ago	7694fe34

Sep 05, 2025

D5. Export prepared training data and train/test splits as CSV files
Shanay Murdock authored 17 hours ago

`d3fa1fff`

D4. Refactored steps to prepare for time series analysis
Shanay Murdock authored 17 hours ago

`c5a5914c`

D3. Add ADF test to check for stationarity
Shanay Murdock authored 17 hours ago

`1e73e261`

D2. Modify explanation of time step formatting
Shanay Murdock authored 17 hours ago

`2b3a8236`

D1. Add interpretation of line graph plot
Shanay Murdock authored 17 hours ago

`97c4e59a`

D1. Add line graph visualization of time series data
Shanay Murdock authored 17 hours ago

`89c2e627`

Sep 03, 2025

Update content for B1-C
Shanay Murdock authored 2 days ago

`c6247536`

Aug 24, 2025

E1. Create an ACF plot for differenced revenue data
Shanay Murdock authored 1 week ago

`0eb9b6e8`

E1. Add visualizations
Shanay Murdock authored 1 week ago

`2cc8f721`

E1. Add trends findings with visualizations
Shanay Murdock authored 1 week ago

`9ba8e072`

D4. Show that Day is set as DF index
Shanay Murdock authored 1 week ago

`0a32d563`

D5. Export prepared training and testing datasets as CSV files
Shanay Murdock authored 1 week ago

`c8849044`

D4. Add steps to prepare the data for analysis
Shanay Murdock authored 1 week ago

`30032e0e`

D4. Add EDA steps
Shanay Murdock authored 1 week ago

`463fd392`

D3. Add stationary test via ADF and interpret results
Shanay Murdock authored 1 week ago

`eb82ddc2`

D2. Add time step formatting explanation
Shanay Murdock authored 1 week ago

`3d8704ec`

D1. Add line graph visualization of raw time series data
Shanay Murdock authored 1 week ago

`2afc9587`

C. Add Summary of Assumptions
Shanay Murdock authored 1 week ago

`1a4bfb86`

B1. Add Research Question & B2. Add Objectives and Goals
Shanay Murdock authored 1 week ago

`e256f750`

A. Add link to GitLab repo
Shanay Murdock authored 1 week ago

`d212cb64`

Add time series data CSV
Shanay Murdock authored 1 week ago

`4cbc57df`

See d603_task_3.html and d603_task_3.ipybn for parts B - I.