



Class Project

Course: ADEV-3005 (241066) Programming in Python

Scraping	Master 6 points	Try Again 0 points	Criterion Score
Name	WeatherScraper class has been created inside a scrape_weather module.		/ 6
Parse	Code uses the Python HTMLParser class to parse the website html.		/ 6
Collect Data	Code successfully scrapes the min, max & mean temperature and date, and stores them in a dictionary of dictionaries.		/ 6

Scraping	Master 6 points	Try Again 0 points	Criterion Score
Detect End	Code successfully scrapes weather data from the current date, as far back in time as is available. Last available weather date should be automatically detected in some way, not hard coded.		/ 6
I/O	Code receives a url to scrape as input, and outputs the scraped data for use in other parts of the program.		/ 6

Database	Master 4 points	Try Again 0 points	Criterion Score
Name	A class named DBOperations has been created inside a db_operations module.		/ 4

Database	Master 4 points	Try Again 0 points	Criterion Score
Context Manager	<p>Code uses a database context manager named DBCM correctly.</p> <p>DBCM returns a cursor object in <code>__enter__</code>.</p> <p>DBCM commits changes and closes all connection objects in <code>__exit__</code>.</p>		/ 4
Initialise	Code successfully initializes the database and creates the necessary tables/fields if they don't already exist, every time the program starts.		/ 4
Store	Code receives & processes date, min, max & mean temperature as input, checks for duplicates in some way, and successfully stores it in the database.		/ 4
I/O	DBOperations outputs the data required for plotting.		/ 4

Plotting	Master 3 points	Try Again 0 points	Criterion Score
Name	A class named PlotOperations has been created inside a plot_operations module.		/ 3
Box Plot	Code successfully uses Python matplotlib to create a basic boxplot of mean temperature data with the same labels/design given in the example.		/ 3
Line Plot	Code successfully uses Python matplotlib to create a line plot of mean temperature data for a particular month.		/ 3
Process	PlotOperations receives & processes the data to be used in the plots. Data is processed in PlotOperations not DBOperations.		/ 3

Plotting	Master 3 points	Try Again 0 points	Criterion Score
Format	Plots are formatted nicely and include axis labels and title. Title includes the correct year or month/day. No axis items are overlapping.		/ 3

User Interaction	Master 5 points	Try Again 0 points	Criterion Score
Name	A class named WeatherProcessor has been created in a module named weather_processor.		/ 5
Fetch Data	On startup, code successfully prompts the user to download a full set of weather data, or update their existing data.		/ 5

User Interaction	Master 5 points	Try Again 0 points	Criterion Score
Plot	Code successfully prompts the user for a date range of interest to display. From year, to year for box plot. Year and month for line plot User prompt shows date format example.		/ 5
Manage	Code successfully launches and manages all the other tasks.		/ 5

Packaging	Master 5 points	Try Again 0 points	Criterion Score
Create	Successfully create a Windows package installer using Inno Setup, which includes a logo and license agreement.		/ 5

Packaging	Master 5 points	Try Again 0 points	Criterion Score
Install & Run	Package can be installed successfully on Windows. Program runs successfully after installation.		/ 5

Additional Requirements	Master 1 point	Try Again 0 points	Criterion Score
PEP8 Compliance	Code adheres to PEP8 standard by achieving a score of 8 or higher using pylint.		/ 1
Docstrings	Code blocks include comments. Code documentation includes module, class & function/method level docstrings.		/ 1
Participation	Each module/class/function documentation contains the names of the people who worked on it.		/ 1

Additional Requirements	Master 1 point	Try Again 0 points	Criterion Score
Error Handling & Logging	Every function/method implements error handling that logs errors to a file using the python logging module.		/ 1
Q&A	Q&A		/ 1

Bonus 1 - Optional	Master 10 points	Try Again 0 points	Criterion Score
UI	Create a user interface for all user interaction. All the widgets are labelled and aligned properly. The UI is polished and presentable, ready for sale.		/ 10

Bonus 2 - Optional	Master 5 points	Try Again 0 points	Criterion Score
Thread	Implement threading in your scraping class to speed up scraping operations.		/ 5

Total

/ 115

Overall Score

Master

80 points minimum

Try Again

0 points minimum