

# # Challenge 1 ESG SML Aggregate (In House)

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## Main Challenge: SAS to Python Hackathon Project - 1 (In House)

We are embarking on a project to modernise an old SAS application by converting it into a modern Python application using GitHub Copilot Chat. The goal is to leverage the capabilities of GenAI (GitHub Copilot) to facilitate this conversion process.

### Project Overview

The project involves the following key steps:

#### Preparation:

- Ensure that the GitHub Copilot and GitHub Copilot Chat extensions are installed from the VS Code Marketplace.
- Obtain the source code of the "ESG SML Aggregate" method program, currently in SAS, and the corresponding input test data file.
- Familiarise yourself with the expected output file (results) for verification purposes.

#### Conversion Process:

- Utilize GitHub Copilot Chat to interactively convert the old SAS code into a modern Python application.
- Experiment with different prompts to instruct Copilot to perform the conversion, ensuring the output is saved to a Python file and validated for functionality.

#### Verification:

- Verify the functionality of the converted Python application using the provided test data and ensure that it produces the expected results.

#### Additional Information

- The project will adopt a manual approach to leverage GitHub Copilot Chat (Powered by GPT-4) for the conversion process.
- The use of GitHub Copilot Chat will enable interactive communication to guide the conversion of the old SAS code into a modern Python application.
- Information ESG SML Aggregate is available on <https://officenationalstatistics.sharepoint.com/sites/ESABCCCESSA/SitePages/ESG-SML-Aggregate.aspx>

By following these steps, we aim to successfully modernize the old SAS application, demonstrating the capabilities of Gen AI in code conversion.

If you have any questions or need further details regarding the project, please feel free to reach out.