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**Information and Data Collation using Python with Excel**

**Functionality & Code Documentation**

**Dated: November 2023**

**For: Catering & Logs Team**

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# Agenda & Purpose

## Agenda

This documentation serves as a purpose to document down the functionalities of the code and explanation. Some knowledge of Python programming is beneficial as there will be code snippets in this documentation to demonstrate the functionalities.

## Background

Catering and Logs (C&L) team needs an efficient and reliable way to compile an overview of the courses that is being provided by SMU Academy. The C&L team is responsible to order catering services whenever there are courses that is being offered. Navigating between multiple windows of different Excel sheets is a challenge to effectively carry out the task.

## Solution

The solution created to tackle the problem is a Python program script that can generate the desired output of overview consistently. Within clicks of the Python script, it should be able to compile Excel sheets, manipulate data, and generate an output Excel sheet with overview.

## Constraints & Assumptions

Before coming up with the Python program, there are certain assumptions and constraints that were made to scoping the requirement:

* There will be 3 exact Excel (not CSV) files with certain naming standardised (“gvSession.xlsx”, “Manage Schedule.xlsx”, “Enrolment Summary.xlsx”) present in the same directory with the Python script. Otherwise, an error will be thrown.
* The headers’ name (a.k.a. the first row of Excel) does not change often.
* All the “manageSchedule.xlsx” *(“Schedule”)* records will have more than or equals to 0 records of “gvSession.xlsx” *(“Session”)* records. If there is a Session and its Schedule is not reflected, this means that the Session does not have a Schedule.
* Schedule will be the primary file that collates the data and information. There will be a key “Schedule #” *(“Schedule Number”)* that maps everything together.

# Functionalities & Code

## Main Code