# CMP - Automating Module Feedback Internship Project

## User Guide

The Automatic Module Feedback Project is used to generate and send surveys to a school’s students.

## System Overview

The project has been written in Power Automate, utilising SharePoint to store excel spreadsheets used throughout the process. The system makes extensive use of Power Automate and Office Scripts, written in Typescript, which interact with data in the Excel documents. In Power Automate there are five Flows, four which perform MVP tasks with the final used for file validation.

### Input / Output

The system has several required input files:

* For each academic year a ‘**Student Emails.xlsx**’ Excel file is required. This file lists Module Ids with student email addresses.
* For each School (CMP for example) a ‘**(CMP) Survey Specification.xlsx**’ Excel file is required. This file is used to generate the surveys.

The system produces the following output results file:

* An Excel file, with a name equal to the module id such as ‘**CMP6006A.xlsx**’, stores all the students survey answers. This file will also contain a report sheet and a graphs sheet (WIP).

### Flows Table

|  |  |
| --- | --- |
| Flow Name (Subject to change) | Description |
| 0. Validate and Preview Survey | - Used to validate the contents of the ‘**Student Emails.xlsx**’ and ‘**(CMP) Survey Specification.xlsx**’ Excel files for a given academic year and module id. - Also generates a preview for both Mid term and End of Term surveys and saves them into the folder containing the Survey Specification. |
| 1. New: Excel to Emails | - Given a survey type and academic year, sends an email containing a URL link to the survey for each email in the ‘**Student Emails.xlsx**’. |
| 2. New: Form to Student | - When a HTTP request is made for the URLs in ‘1. New: Excel to Emails’ the survey is automatically generated given data passed in the URL. - The HTML and CSS is automatically built in relation to the data stored in ‘**(CMP) Survey Specification.xlsx**’.  - The ‘**CMP6006A.xlsx**’ file is generated – if it does not already exist – in the results folder.  - The webpage loads the generated survey. It can then be completed and submitted. |
| 3. New: HTTP Post to Excel | - When the survey is submitted, the data is processed and added to the ‘**CMP6006A.xlsx**’ as a new row.  - The student is then redirected to a ‘thank you for submitting page webpage’. |
| 4. New: Excel to Reports Test | - When run, automatically generates a results and graphs work sheet for each results Excel spreadsheet in a given folder path. - An email is then sent to each module organiser stored in ‘**(CMP) Survey Specification.xlsx**’. |

### SharePoint Folder Structure

The survey creator must (currently) create the following folder structures and files:

*Documents/Data/Inputs/2021-2022/Student Emails.xlsx  
Documents/Data/Inputs/2021-2022/CMP/(CMP) Survey Specification.xlsx*

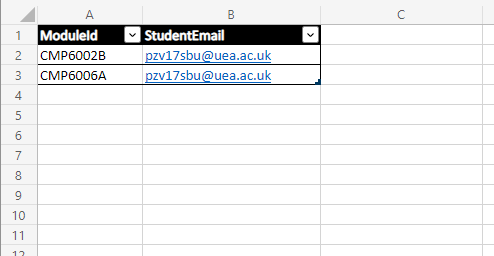
The system will automatically generate the following folder structure:

*Documents/Data/Results/2021-2022/CMP/Mid/CMP6006A.xlsx  
Documents/Data/Results/2021-2022/CMP/End/CMP6006A.xlsx*

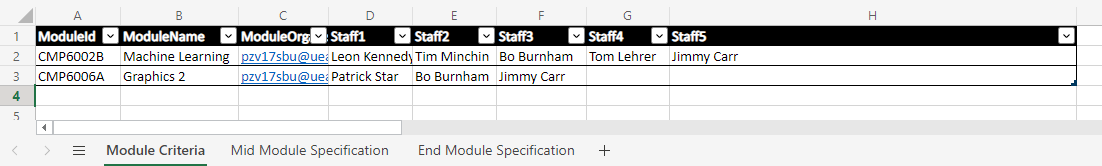
### File Structures

**Inputs**

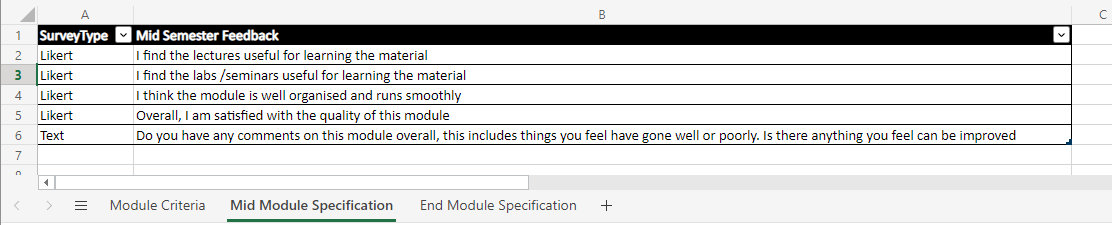
*Student Emails.xlsx*



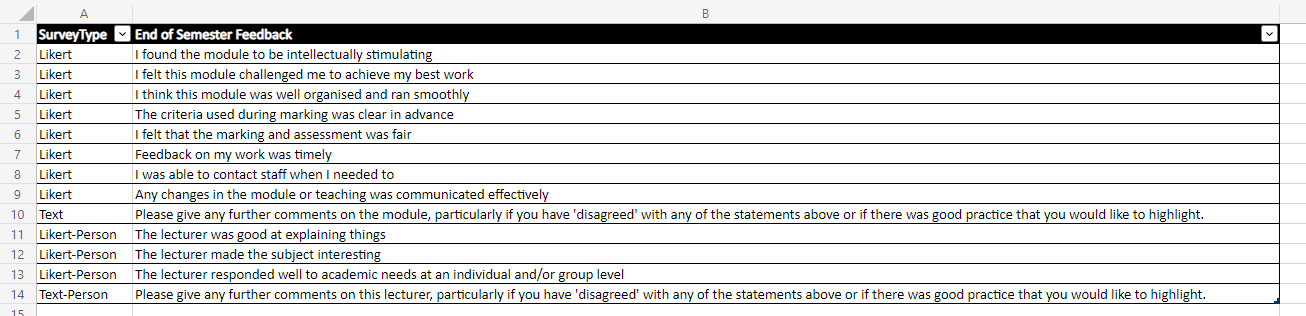
*(CMP) Survey Specification.xlsx – Module Criteria*



*(CMP) Survey Specification.xlsx – Mid Module Specification*

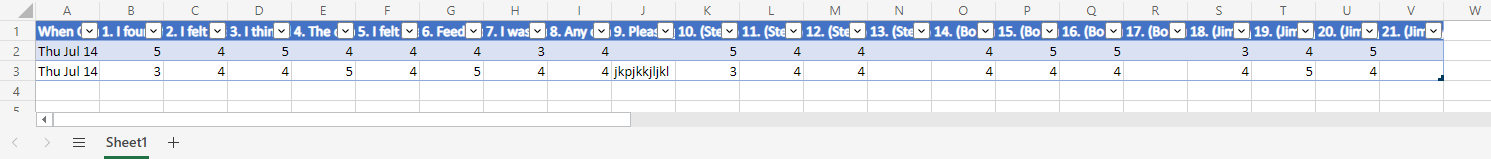


*(CMP) Survey Specification.xlsx – End Module Specification*



**Results**

*/End/CMP6006A.xlsx – Sheet1*



*/End/CMP6006A.xlsx – Results*

