TGSB – Case Study 1

# Description.

Generate a report that compares the badge and timesheet exports (provided along with this case study) and displays the users who indicated in the timesheet that they would be onsite on a specific date but did not show up.

This report relies on two exports, with the following details:

* Badge export which records each time a user swiped the badge to enter a floor on site.
* Timesheet export shows the user's days with onsite work (marked by decimal/whole numbers) and other events (***TW - Remote Work***; ***CM - Medical Leave***; ***EV - Special Event***; ***etc***.).

***Good to know***:

* The link between the two exports is made through the ***Date Occurrence*** column from the Badge export and the ***Day*** columns in the timesheet export.
* The Excel report should consider data for one month only (based on the user selection) and the Power BI report should consider all the available data.

# Excel VBA Report – 50 points.

The report should include the following features:

* (30 points) A macro that allows the user to select the two reports (individually - by using the FileDialog option) and save their location in dedicated named ranges (***Badge\_File\_Path*** and ***Timesheet\_File\_Path***), locations that will be later used dynamically in Power Query (use a variable to store these values) to import and analyse the data.
  + Create three tables in Power Query:
    - Badge (connection only).
    - Timesheet (connection only).
    - New Table (connection only – resulted by merging the above two tables – table that should only include users with no
* (15 points) A pivot table (in tabular form) that summarizes the data by day, department, team leader, and full name of the user (using the connection ***Query – New Table***).
* (5 points) A chart that visualizes the data and shows the trends per day (sorted ascending on day).

Bonus question (15 points) Does it make sense to use the ***Enable background refresh*** option on this report (from VBA perspective)? Please elaborate why.

# Power BI Report – 50 points.

The report includes the following features:

* (30 points) A data model that integrates all the exports for both Badge and Timesheet (by using the ***Folder*** connector).
  + Create three tables in Power Query:
    - Badge (connection only).
    - Timesheet (connection only).
    - New Table (connection only – resulted by merging the above two tables – table that should only include users with no badge entry for a specific day but marked as onsite in timesheet.).
* (10 points) A matrix element (in tabular form) that summarizes the data by day, department, team leader, and full name of the user.
* (5 points) Three slicers for:
  + Year
  + Month
  + Full name
* (5 points) A chart that visualizes the data and shows the trends per day (sorted ascending on day).

Bonus points (5 points) Create a measure the number of users without badge entry and use it as values in the matrix element.

Bonus points (5 points) What is the main benefit of using documents stored on SharePoint vs storing them locally, from a report publishing perspective?