Data Warehouse Project

General Guidelines:

- The team consists of 4-6 students
- 2 parts to implement in the project:
  - Using Alteryx
  - Using SQL SERVER Integration Services (SSIS)
- Every team member will be asked in the project discussion

Project Description

Main topics: Each team should:

- Extract data from Dataset
- Make Transformation
- Load data in destination
- Construct Star schema
- Make analysis on star schema using Power BI
- Write a documentation

Detailed Requirements:

- Each team should get a dataset (source) to work on from the Internet.
- Each team will be assigned a category to get a dataset from.
- The dataset could be in any format (excel, flat file etc.)
- Use **Alteryx** to split dataset records into half and load them in two different destinations. (do not use total number of records in your solution)
    - First and second halves destinations will be in excel format
- For the first half you will use **Alteryx** and for the second half you will use **SSIS**
- Each team should do the same transformation on the two halves but each on its tool (Alteryx - SSIS)
- Transformations to use:
    - 1: filter records on specific condition (custom condition)

    - 2: choose any string column and uppercase the first character only
    - Third: split any column into many columns (Ex: date)
    - Fourth: replace any white spaces with underscore for any string column
- Depending on first point (1) in transformation, each half will be divided again in two parts.
    - First Half (part 1 and part 2)
    - Second half (part 1 and part 2)
- You will have 2 destinations.
    - Load part 1 from first and second halves in destination 1.
    - Load part 2 from first and second halves in destination 2.
- The two destinations will be in SQL Server.
- Design Star schema with 2 dimensions and load data from any destination into it.
- Use Power BI to generate charts from the star schema (at least 3 charts).
- Make documentation which includes:
    - Short paragraph describing dataset and its columns
    - Which components used in the 2 tools (Alteryx and SSIS)
    - Screenshots from each component used
    - What decisions should be taken depending on charts results

Best Wishes