Your Task is to implement the FP-Growth algorithm using any of the following languages (C#, C++, python, or Java). You will be asked to :

1. Read the transactions table from an Excel file.
2. Use horizontal data format like the data in section
3. Represent the FP-tree for your data
4. Generate all the frequent item sets.
5. Represent the frequent items in the form of association rules.
6. Extract the strong rules.
7. Calculate the dependencies between the items (lift).
8. Run your algorithm using different minimum support and confidence values.
9. Generate all the possible frequent item sets (L1, L2, ….LK).

Attached here is a sample of the horizontal data format.

Kindly note the following:

1. Your delivery will be the week starting 26/11/2024, the schedule will be announced soon.
2. Your projects will be checked for plagiarism, in case of cheating all the teams will be graded **Zero**.
3. A maximum of two students will attend the delivery on behalf of the team.