<u>Mini Project Synopsis</u>

TITLE: EXCEL DATA MANAGEMENT SYSTEM

Problem Statement:

➢ To develop a application with a graphical user interface (GUI) to manage data from an Excel file which allows users to view, add, update, and delete data records stored in an Excel file, as well as visualize selected data through graphs.

Description:

➢ The Excel Data Management System will use a GUI built with widgets such as Buttons for operations (e.g., adding, updating, deleting records), Labels for displaying instructions, and Treeview for showing data in a table format.

➢ The application will interact with an Excel file to load, edit, and save data entries, ensuring updates are reflected in the file.

➢ It will also include options to generate graphical visualizations (e.g., line or bar charts) based on the data, providing insights through visualization.

Expected Outcomes:

➢ Display data from an Excel file in a table format using Treeview.

➢ Add, update, or delete records directly through the GUI, with real-time updates visible in the Treeview widget.

➢ Save data changes back to the Excel file.

➢ Visualize data by generating a graph, which can be shown within the application.

Technologies and Tools:

➢ Python: The main programming language for the application.

➢ Tkinter: For creating the GUI, with widgets such as Buttons, Labels, and Treeview.

➢ Treeview: It is a UI component that displays hierarchical data in a tree structure, allowing users to expand or collapse nodes to navigate through the levels.

➢ Pandas: For reading from and writing to Excel files, as well as handling data manipulations.

➢ Matplotlib: For data visualization, plotting graphs based on selected data.

Team Details:

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Signature of the Guide with date   **Signature of the Coordinator with date**