**PROJECT-1**

**Pandas & Python based Data Handling Project**

Develop a Grade Report project for a teacher and his students where:

1. The user enters via a login and password.
2. The program consists of multiple functions including the following:
   1. Adding student names and classes to text files.
   2. Calculating percentage and grade of all students giving test scores of 5 subjects:
      1. Percentage>75 then grade A
      2. Percentage 60-75 then grade B
      3. Percentage 40-59 then grade C
      4. Others grade D (Fail)
   3. Using Pandas to read/write to an excel database that holds the student classes and grades for those classes.
3. Use Matplotlib to:
4. Create a histogram of the numerical scores of the students.
5. Produce a bar plot of the grade counts for ex. Number of students getting grades A, B and C in represented bars.

**PROJECT-2**

**Tic Tac Toe Game**

Tic Tac Toe is one of the most played games. The game is played by two individuals. First, we draw a board with a 3×3 square grid. The first player chooses ‘X’ and draws it on any of the square grid, then it’s the chance of the second player to draw ‘O’ on the available spaces. Like this, the players draw ‘X’ and ‘O’ alternatively on the empty spaces until a player succeeds in drawing 3 consecutive marks either in the horizontal, vertical or diagonal way. Then the player wins the game otherwise the game draws when all spots are filled. This project will be build using the pygame library. Pygame is a python library that will allow user to create the window and draw images and shapes on the window. This way you will capture mouse coordinates and identify the block where user need to mark ‘X’ or ‘O’. Then you will check if the user wins the game or not.

**PROJECT-3**

**Typing Speed Calculator**

Python project to build your own game of typing speed testing. In this Python project idea, user can check and even improve your typing speed. For a graphical user interface, you must use the pygame library which is used for working with graphics. In this project create a sentences.txt file in which you have to add multiple sentences separated by a new line. A sentence will be displayed on screen to user who has to type that sentence in the given text area. The output will display the time taken by user to type the text and the accuracy of typing.