OEL PROJECT
DATA STRUCTURES AND ALGORITHM

SYEDA RIDA FATIMA(CS-19055)

UMME HANI(CS-19054)

SYEDA BAREEHA ALI(CS-19021)

SUBMITTED TO
MADAM DR UROOJ AINUDDIN

INTRODUCTION:

The project is Python Quiz Game. The project is GUI based and provides a user-friendly environment throughout the program execution. The data Structure we used in this game is **List**. It is a mutable data structure and store elements easily. This game is a scrambled word game where the user can opt a specific domain according to his own interest and then play the game. After every rightly guessed word, the scores are increased.

DATA STRUCTURE:

The data structure used is list because of its mutable data structure. It provides convenience while retrieving the data. It defines a sequential set of elements to which we can add new elements and remove or change existing ones.

FLOW CHART AND FUNCTIONS DESCRIPTION:
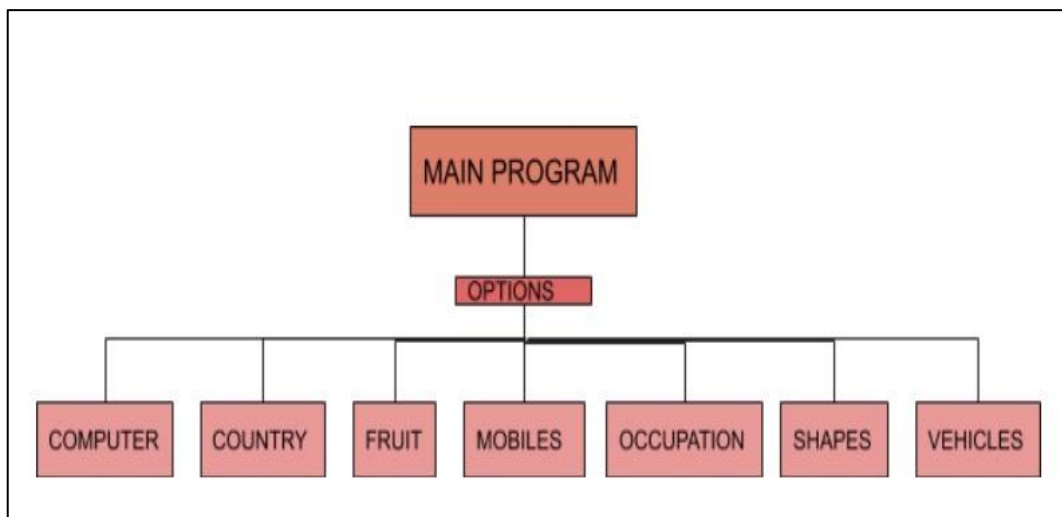
MAIN PROGRAM (MAIN_START.PY):

MAIN_START:

START_MAIN_PAGE: it is the main function of this file that contains three nested functions.

OPTION: In this function of "options",GUI is being controlled where 7 buttons are displayed. For the front screen an image is also set through this option function. The button will call the function "start_game" and the option will be set to the button which has been selected by the player accordingly.

SHOW_OPTION: It keeps track of which window to be displayed. Also, it sets the button "start" and "back" in a game in this function.

START_GAME:

The nested function, named "start_game", contains seven conditions in it as the user choose the option, that particular file will be called through this function.

As shown in this figure:

```python
def start_main_page():
    def start_game(args):
        main_window.destroy()
        if args == 1:
            from Options import Country
            Country.main()
        elif args == 2:
            from Options import Occupation
            Occupation.main()
        elif args == 3:
            from Options import Mobiles
            Mobiles.main()
        elif args == 4:
            from Options import Fruit
            Fruit.main()
        elif args == 5:
            from Options import Shapes
            Shapes.main()
        elif args == 6:
            from Options import Computer
            Computer.main()
        elif args == 7:
            from Options import Vehicles
            Vehicles.main()
```

FILE "OPTIONS":

We have used list data structure and all the data will be stored in the form of list. If we import any option so in that option we will have a program. In that program, for using random option from the list we have used an object. Our program contains four functions i.e. back, change, check, and show_answer.

BACK: This function will change the current window to main window.

CHANGE: This function will change the displayed word with some other word from the particular list of domain. (Computer, Country, Vehicles, Occupations, Mobiles, Fruit and Shapes)

CHECK: If the answer is correct or incorrect, a message box will be displayed with the message that either your answer is correct or incorrect.

SHOW_ANSWER: The last function will be called. If the user wants to know the point/score. It will help to update the score of user accordingly.

OUTPUTS: