REPORT FOR QUIZ MODULE

Project work for Course

PYTHON PROGRAMMING (INT213)

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Program: B.Tech (CSE)

Semester: Third

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TEAM MEMBERS

Team Leader

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Contributions: -

1. The program is coded in VS code all by me with some references to YouTube videos.
2. I have created the report also by myself, with some minor editing.

USED COMPONENTS

I have used the below components in my code to run this project to its maximum efficiency.

1. Array in 3d and 2d: the array helps in storing the data.

2. Buttons: The buttons help in navigating the user throughout the quiz.

3. Labels: This widget is used to implement text and image to the program.

4. Radio buttons: Helps the user select the option and save the key.

5. Entry: This is used to implement the single line text to accept values from user (Credentials0.

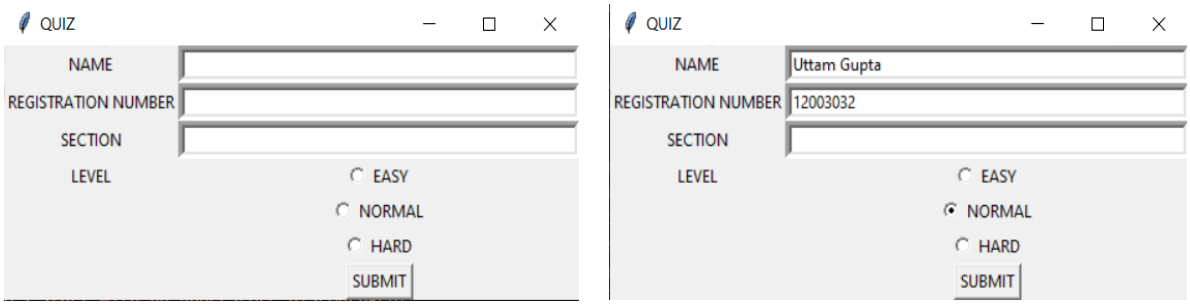
6. Frame: Used to organize group of widgets.

WHAT IS QUIZ ABOUT AND HOW DOES IT WORK?

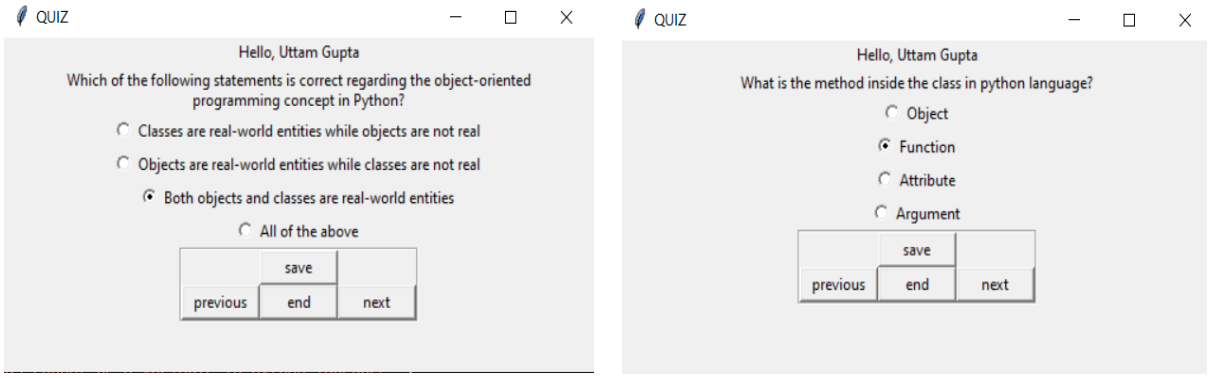
Quiz is real time user interface program where the user is asked questions on the basis the difficulty level they choose. They are required to mark the answers and save them.

Array is used for storing the questions, the options to each question, answer key and the answer saved/input by user. Function onclick is used to withdraw the first window and then show the following question pages. Function Select is used to save user input according to the question number. Function change was used to change questions and their respective option on clicking next. Else If conditions are used to either navigate through whole set of questions or to save your progress and show your answers without declaring your result. The condition is also used to end the quiz wherever you want and show the result scored by the user.

SCREENSHOTS OF THE OUTPUT



1. Output window where user is asked to input his credentials



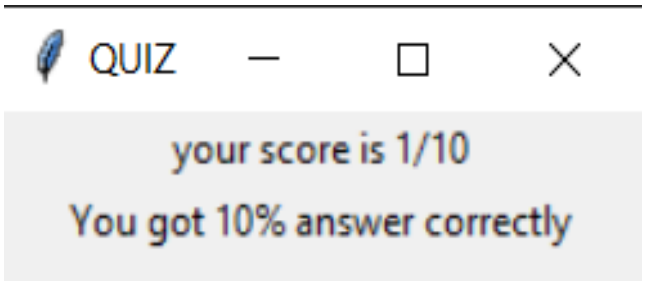
2. Based on the level of quiz selected, user is asked questions and need to mark the appropriate answer. They should save it to move forward.

```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\govin\OneDrive\Desktop\QUIZ-main> & C:/Users/govin/AppData/Local/Programs/Python/Python39/python.exe c:/Users/govin/OneDrive/Desktop/QUIZ-main/code.
py
['c', None, None, None, None, None, None, None, None, None]
['c', 'b', None, None, None, None, None, None, None, None]
['b', 'a', None, None, None, None, None, None, None, None]
['b', 'a', 'c', None, None, None, None, None, None, None]
```

3. We can see above that as the user saves their answer, the correspond key is saved in backend of the program (terminal window).



4. After the user ends the test, their respective score matching the key is shown.

PROGRAM SCREENSHOT

code.py > ...

```python
from tkinter import *
root=Tk()
root.title("QUIZ")
que=[
  ["What is the maximum possible length of an identifier?",
    "Who developed the Python language?",
    "In which year was the Python language developed?",
    "In which language is Python written?",
    "Which one of the following is the correct extension of the Python file?",
    "In which year was the Python 3.0 version developed?",
    "What do we use to define a block of code in Python language?",
    "Which character is used in Python to make a single line comment?",
    "Which of the following is not a keyword in Python language?",
    "Which one of the following has the highest precedence in the expression?",],
  ["Which of the following statements is correct regarding the object-oriented programming concept in Python?",
    "What is the method inside the class in python language?",
    "Which of the following declarations is incorrect?",
    "Why does the name of local variables start with an underscore discouraged?",
    "Which of the following statements is correct for variable names in Python language?",
    "Which of the following declarations is incorrect in python language?",
    "Which of the following words cannot be a variable in python language?",
    "Which of the following operators is the correct option for power(ab)?",
    "Which of the following option is not a core data type in the python language?",
    "MANGO = APPLE  ",],
  ["Which of the following precedence order is correct in Python?",
    "Which one of the following has the same precedence level?",
    "Which one of the following syntaxes is the correct syntax to read from a simple text file stored in ''d:\java.txt''?",
    "The output to execute string.ascii_letters can also be obtained from:?",
    "What happens when '2' == 2 is executed?",
    "Which of the following is a feature of Python DocString?",
    "What is the maximum possible length of an identifier in Python?",
    "Which of the following statements is used to create an empty set in Python?",
    "Which module in the python standard library parses options received from the command line?",
    "Which one of the following is not a keyword in Python language?",
    ],
]

answ=[
    [
        ['16','32','64','None of these above',],
        ['Zim Den','Guido van Rossum','Niene Stom','Wick van Rossum',],
        ['1995','1972','1981','1989',],
        ['English','PHP','C','All of the above',],
        ['.py','.python','.p','None of these',],
        ['2008','2000','2010','2005',],
        ['Key','Brackets','Indentation','None of these',],
        ['/','//','#','!',],
        ['val','raise','try','with',],
        ['Division','Subtraction','Power','Parentheses',],
    ],
    [
        ['Classes are real-world entities while objects are not real','Objects are real-world entities while classes are not real','Both objects and classes are real-worl
        ['Object','Function','Attribute','Argument',],
        ['_x = 2','__x = 3','__xyz__ = 5','None of these',],
        ['To identify the variable','It confuses the interpreter','It indicates a private variable of a class','None of these',],
        ['All variable names must begin with an underscore.','Unlimited length','The variable name length is a maximum of 2.','All of the above',],
        ['xyzp = 5,000,000','x y z p = 5000 6000 7000 8000','x,y,z,p = 5000, 6000, 7000, 8000','x_y_z_p = 5,000,000',],
        ['_val','val','try','_try_',],
        ['a ^ b','a**b','a ^ ^ b','a ^ * b',],
        ['Dictionary','Lists','Class','All of the above',],
        ['NameError','SyntaxError','TypeError','ValueError',],
    ],
    [
        ['Parentheses, Exponential, Multiplication, Division, Addition, Subtraction','Multiplication, Division, Addition, Subtraction, Parentheses, Exponential','Division
        ['Division, Power, Multiplication, Addition and Subtraction','Division and Multiplication','Subtraction and Division','Power and Division',],
        ['Infile = open(''d:\\java.txt'', ''r'')','Infile = open(file=''d:\\\java.txt'', ''r'')','Infile = open(''d:\java.txt'',''r'')','Infile = open.file(''d:\\java.txt
        ['character','ascii_lowercase_string.digits','lowercase_string.upercase','ascii_lowercase+string.ascii_upercase',],
        ['False','Ture','ValueError occurs','TypeError occurs',],
        ['In Python all functions should have a docstring','Docstrings can be accessed by the __doc__ attribute on objects','It provides a convenient way of associating d
        ['79 characters','31 characters','63 characters','none of the mentioned',],
        ['( )','[ ]','{ }','set()',],
        ['getarg','getopt','main','os',],
        ['pass','eval','assert','nonlocal',],
    ],
]
```

```
key=[
  ["d","d","d","c","a","a","c","c","a","d",],
  ["b","b","d","c","b","b","c","b","c","a",],
  ["a","b","a","d","a","d","d","d","b","b",],
]
global g,lblque,r1,r2,r3,r4
g=IntVar()
g.set("0")
def onclick(value):
    root.withdraw()
    screen=Tk()
    screen.title("QUIZ")
    screen.geometry("500x250")
    userans=[None]*10
    s=[0,1,2,3,4,5,6,7,8,9,]
    def select(r):
        global g
        userans[g.get()]=r
    g=0
    def change(c):
        global g,lblque,r1,r2,r3,r4
        if c=="pre":
            g.set(g.get()-1)
            lblque.config(text=que[value][s[g.get()]])
            r1['text']=answ[value][s[g.get()]][0]
            r2['text']=answ[value][s[g.get()]][1]
            r3['text']=answ[value][s[g.get()]][2]
            r4['text']=answ[value][s[g.get()]][3]
        elif c=="next":
            g.set(g.get()+1)
            if g.get()==10:
                change('end')
            else:
                lblque.config(text=que[value][s[g.get()]])
                r1['text']=answ[value][s[g.get()]][0]
                r2['text']=answ[value][s[g.get()]][1]
                r3['text']=answ[value][s[g.get()]][2]
                r4['text']=answ[value][s[g.get()]][3]
        elif c=="end":
```

```
        elif c=="end":
            screen.withdraw()
            tree=Tk()
            tree.title("QUIZ")
            tree.geometry("200x50")
            sum=0
            for i in range(10):
                if userans[i]==key[value][i]:
                    sum+=1

            Label(tree,text="your score is "+str(sum)+"/10").pack()
            Label(tree,text="You got "+str(sum)+"0"+"%"+" answer correctly").pack()
        elif c=="save":
            print(userans)
    global lblque,r1,r2,r3,r4
    intr=Label(screen,text="Hello, "+name.get())
    intr.pack()
    lblque=Label(screen,text=que[value][s[0]],justify="center",wraplength=400)
    lblque.pack()
    r=IntVar()
    r.set('-1')
    r1=Radiobutton(screen,text=answ[value][s[g]][0],variable=r,value=0,command=lambda:select("a"))
    r1.pack()
    r2=Radiobutton(screen,text=answ[value][s[g]][1],variable=r,value=1,command=lambda:select("b"))
    r2.pack()
    r3=Radiobutton(screen,text=answ[value][s[g]][2],variable=r,value=2,command=lambda:select("c"))
    r3.pack()
    r4=Radiobutton(screen,text=answ[value][s[g]][3],variable=r,value=3,command=lambda:select("d"))
    r4.pack()
    screeno=LabelFrame(screen)
    screeno.pack()
    screeno.config(width=10)
    save=Button(screeno,text="save", command=lambda:change("save"),height=1,width=8)
    save.pack(side= TOP)
    pre=Button(screeno,text="previous",command=lambda:change("pre"),height=1,width=8)
    pre.pack(side=LEFT)
    next=Button(screeno,text="next",command=lambda:change("next"),height=1,width=8)
```

```
    next.pack(side=RIGHT)
    end=Button(screeno,text="end",command=lambda:change("end"),height=1,width=8)
    end.pack(side=BOTTOM)
Label(root, text="NAME").grid(row=0,column=0)
Label(root, text="REGISTRATION NUMBER").grid(row=1,column=0)
Label(root, text="SECTION").grid(row=2,column=0)
Label(root, text="LEVEL",).grid(row=3,column=0)
name=Entry(root, width=50, border=5)
name.grid(row=0,column=1)
Entry(root, width=50, border=5).grid(row=1,column=1)
Entry(root, width=50, border=5).grid(row=2,column=1)
v=IntVar()
v.set("-1")
v1=Radiobutton(root, text="EASY",value=0,variable=v,).grid(row=3,column=1)
v2=Radiobutton(root, text="NORMAL",value=1,variable=v,).grid(row=4,column=1)
v3=Radiobutton(root, text="HARD",value=2,variable=v,).grid(row=5,column=1)
Button(root, text="SUBMIT",command=lambda: onclick(v.get())).grid(row=6,column=1)
root.mainloop()

```

CONCLUSION

In conclusion, the quiz project has been very exciting, and I got so much to learn and explore. I know there is much that can be done in this project to make the program look much more user friendly and cool. I look forward to learning all of that and more in my upcoming time in college and classes.

References:

1. The code is developed and run in Visual Studio Code.
2. For further I help, I watched videos from CODEMY.COM, (https://www.youtube.com/channel/UCFB0dxMudkws1q8w5NJEAmw)
3. GitHub link: https://github.com/UTTAMGUPTA2712/QUIZ
4. Questions taken from: https://www.sanfoundry.com/1000-python-questions-answers/
5. Navigation help: https://stackoverflow.com/questions/14817210/using-buttons-in-tkinter-to-navigate-to-different-pages-of-the-application
6. Destroying windows: https://stackoverflow.com/questions/68396293/destroy-one-window-and-open-another-in-tkinter-python
7. Tkinter: https://www.javatpoint.com/python-tkinter
8. Python help: https://www.learnpython.org/