QUIZ GAME

Project submitted to the

SRM University – AP, Andhra Pradesh

for the partial fulfillment of the requirements to award the degree of

Bachelor of Technology

In

Computer Science and Engineering

School of Engineering and Sciences

Submitted by

Candidate Name

Dhulipalla Yaswanth | AP21110010023

Rithika Nampally | AP21110010030

Purna Jear Kesavapatnam | AP21110010035

Ponvitha Nerusu | AP21110010065

Under the Guidance of

(KAVITHA RANI KARNENA)

SRM University–AP

Neerukonda, Mangalagiri, Guntur

Andhra Pradesh – 522 240

[December, 2022]

Certificate

Date: 13-Dec-22

This is to certify that the work present in this Project entitled "**QUIZ GAME**" has been carried out by **[DHULIPALLA YASWANTH]** under my/our supervision. The work is genuine, original, and suitable for submission to the SRM University – AP for the award of Bachelor of Technology/Master of Technology in **School of Engineering and Sciences**.

Supervisor

(Signature)

Prof. / Dr.Kavitha Rani Karnena

Certificate

Date: 13-Dec-22

This is to certify that the work present in this Project entitled "**QUIZ GAME**" has been carried out by **[RITHIKA NAMPALLY]** under my/our supervision. The work is genuine, original, and suitable for submission to the SRM University – AP for the award of Bachelor of Technology/Master of Technology in **School of Engineering and Sciences**.

Supervisor

(Signature)

Prof. / Dr. Kavitha Rani Karnena

Certificate

Date: 13-Dec-22

This is to certify that the work present in this Project entitled "**QUIZ GAME**" has been carried out by **[KESAVAPATMAM PURNA JEAR]** under my/our supervision. The work is genuine, original, and suitable for submission to the SRM University – AP for the award of Bachelor of Technology/Master of Technology in **School of Engineering and Sciences**.

Supervisor

(Signature)

Prof. / Dr. Kavitha Rani Karnena

Certificate

Date: 13-Dec-22

This is to certify that the work present in this Project entitled "**QUIZ GAME**" has been carried out by **[PONVITHA NERUSU]** under my/our supervision. The work is genuine, original, and suitable for submission to the SRM University – AP for the award of Bachelor of Technology/Master of Technology in **School of Engineering and Sciences**.

Supervisor

(Signature)

Prof. / Dr. Kavitha Rani Karnena

Acknowledgements

I would like to thank my teacher Kavitha Rani Karnena who gave me the opportunity to work on this project. I got to learn a lot from this project about the function and various module.I am very grateful to her for her support and guidance in completing this project. Finally, I want to thank all my teammates as well for beingpart of the team and for helping me complete this project.

Group12

CSE-A

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Abstract

Quiz Game is user friendly and reduces the manual effort.In past days Quiz was conducted manually but nowadays by using technology we are able to generate automatic scores. In this project we have developed a Quiz Game.The concept of quizzes is very popular among educated circles as well as in some entertainment shows.Quizzes contribute to growth of the knowledge of an individual and they are a popular source of entertainment.

This quiz game will be user friendly with which user can gain some knowledge and can also get entertainment.This game has multiple questions and it also calculates the scores of each correct answer.It is good for students of every age group it helps in increasing General knowledge about world,Sports,Computer etc.No need to register, simply give your user name and you can login with the same user name.It helps user to increase his/her knowledge. As a part of Internal Assessments many colleges have been conducting Quizzes.

Statement of Contributions:

Dhulipalla Yaswanth- coding and analysis

Rithika Nampally-Implementation and presentation

Purna Jear Kesavaparnam- Implementation and presentation

Ponvitha Nerusu- Implementation and report

1) Introduction:

The quiz games can be conducted for different age groups and over varying cultures Quizzes improve or expand one’s knowledge of things, either general or in specific areas Quizzes are designed to promote, a fun way to study and in the process help improve one’s general knowledge. And mainly our aim is to develop and conduct Online quizzes which makes people think in a more technical way.

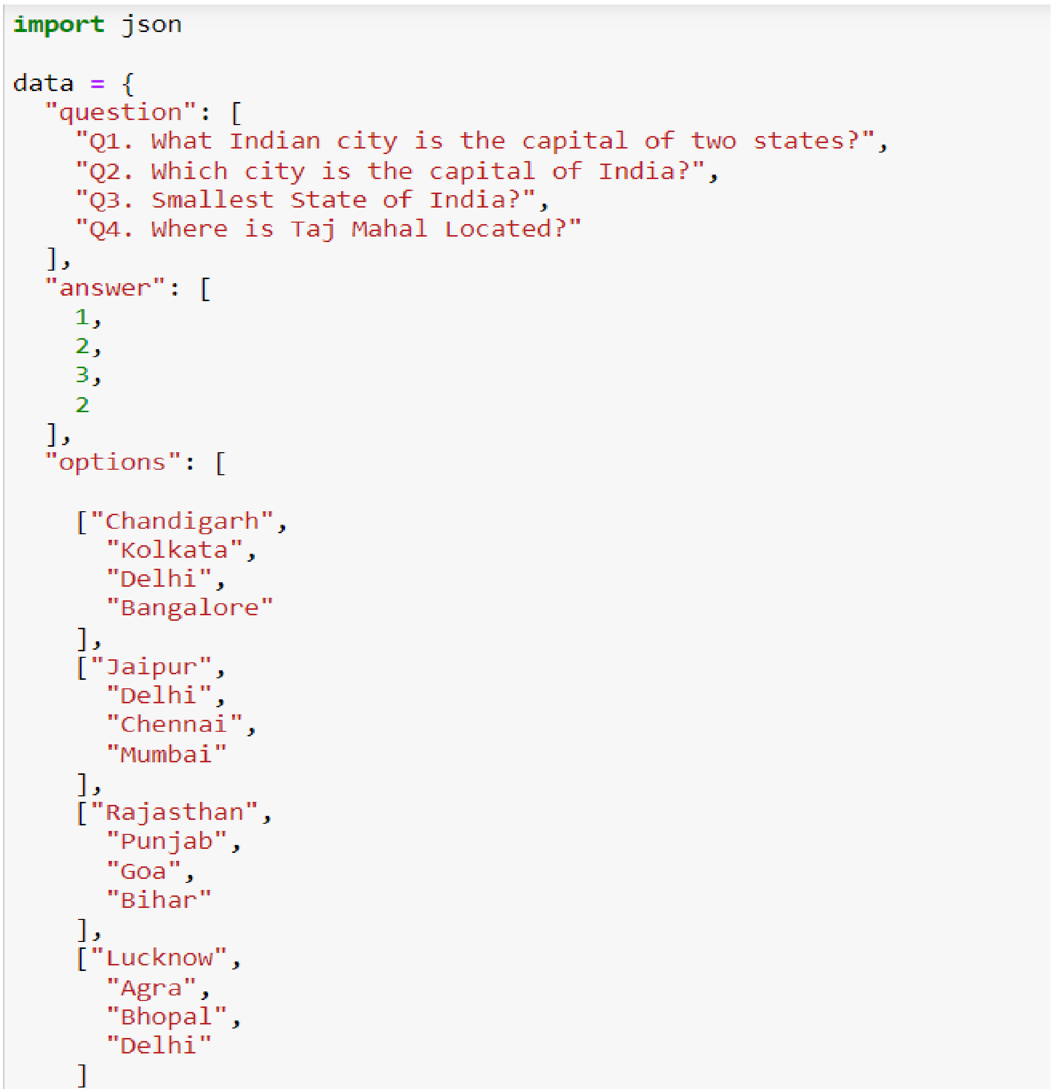
Quiz game is accessed by entering your name which is added to the records. Before the start of the quiz,The rules and regulations will be displayed .Our quiz game will offer the player questions to which the player must respond with the answer. Each question will have four choices, in which the player should choose the correct choice.

If the player does not correctly answer the question then the player will earn no points and the correct answer is printed. However, if the player correctly answers the question, he will get a score according to his performance. The total score is displayed, along with the score we also display the correct options and options entered by the player. If the player wants to skip the current question, the player should enter “skip” and if the player wants to submit the test he should enter “submit”.Finally in this project we store the previous records so we can see the previous data.

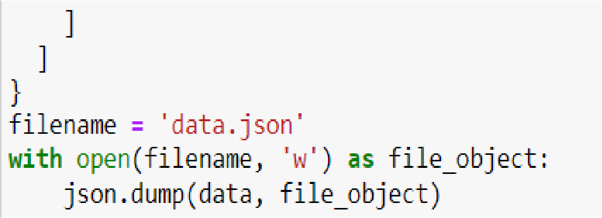
2) Methodology

2.1 DESIGNING A DATASET:

. To Create a data set first we imported JSON this JSON will create a file in which we named it as data.json and by using file concept we are dumping the data from file by using data.dump and this data is used in the code.

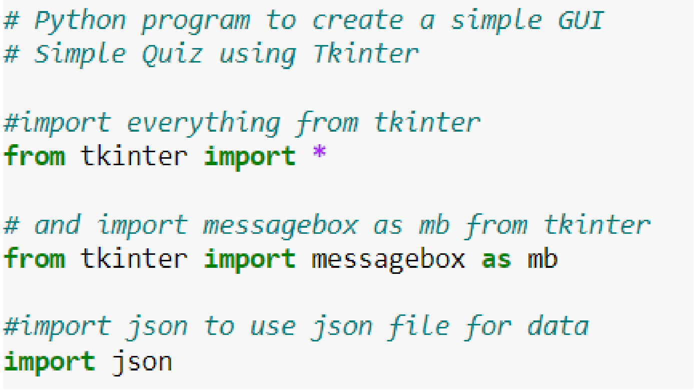


```
import json

data = {
  "question": [
    "Q1. What Indian city is the capital of two states?",
    "Q2. Which city is the capital of India?",
    "Q3. Smallest State of India?",
    "Q4. Where is Taj Mahal Located?"
  ],
  "answer": [
    1,
    2,
    3,
    2
  ],
  "options": [

    ["Chandigarh",
      "Kolkata",
      "Delhi",
      "Bangalore"
    ],
    ["Jaipur",
      "Delhi",
      "Chennai",
      "Mumbai"
    ],
    ["Rajasthan",
      "Punjab",
      "Goa",
      "Bihar"
    ],
    ["Lucknow",
      "Agra",
      "Bhopal",
      "Delhi"
    ]
```



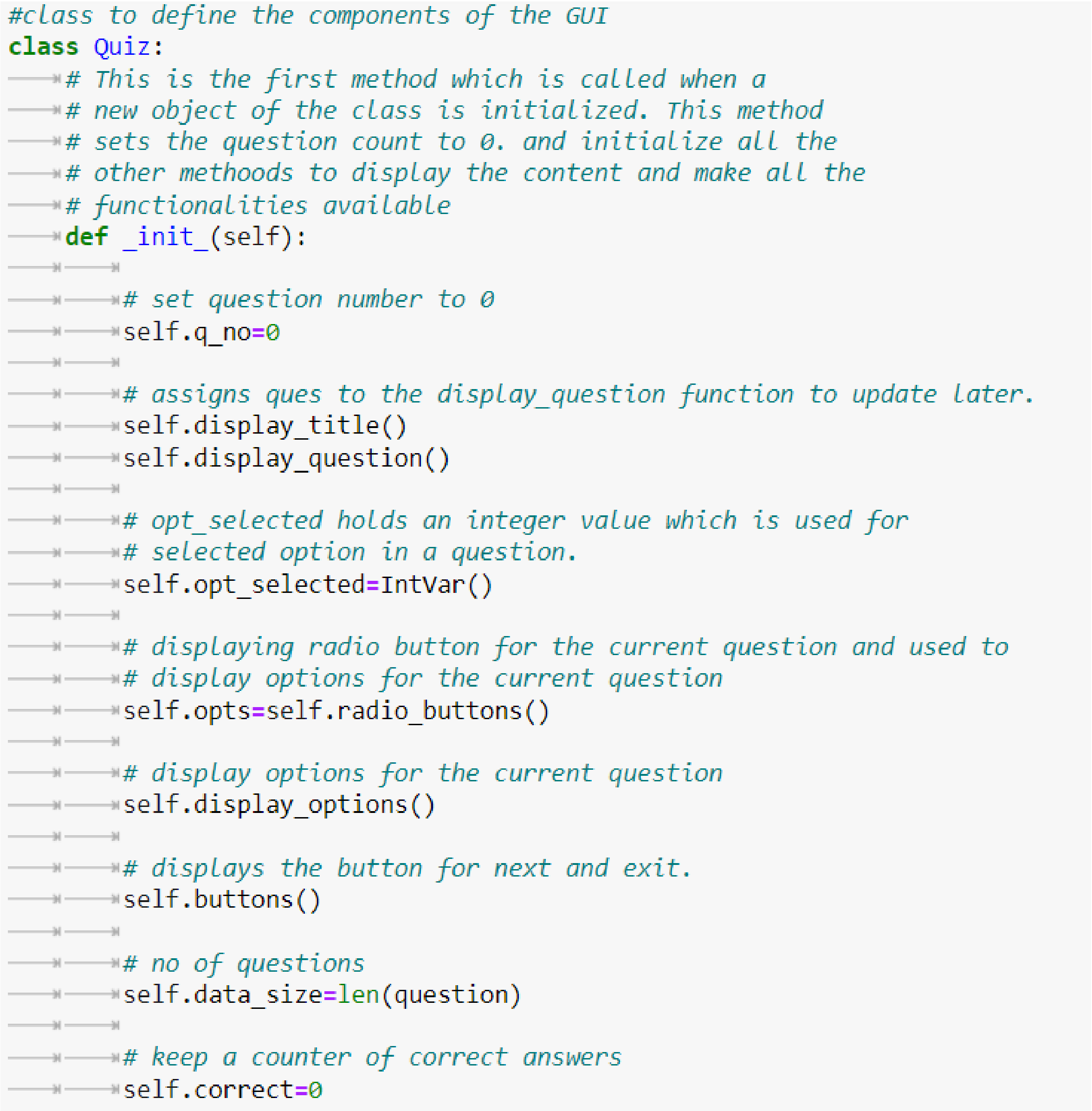
```
    ]
  ]
}
filename = 'data.json'
with open(filename, 'w') as file_object:
    json.dump(data, file_object)
```

2.2 Importing GUI:



```
# Python program to create a simple GUI
# Simple Quiz using Tkinter

#import everything from tkinter
from tkinter import *

# and import messagebox as mb from tkinter
from tkinter import messagebox as mb

#import json to use json file for data
import json
```

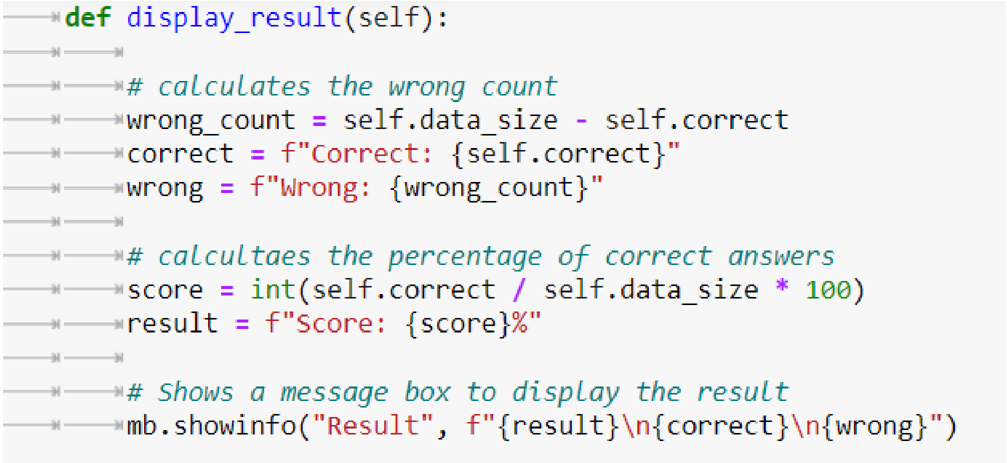
2.3 Creating a Class:



```
#class to define the components of the GUI
class Quiz:
    # This is the first method which is called when a
    # new object of the class is initialized. This method
    # sets the question count to 0. and initialize all the
    # other methoods to display the content and make all the
    # functionalities available
    def _init_(self):
        
        # set question number to 0
        self.q_no=0
        
        # assigns ques to the display_question function to update later.
        self.display_title()
        self.display_question()
        
        # opt_selected holds an integer value which is used for
        # selected option in a question.
        self.opt_selected=IntVar()
        
        # displaying radio button for the current question and used to
        # display options for the current question
        self.opts=self.radio_buttons()
        
        # display options for the current question
        self.display_options()
        
        # displays the button for next and exit.
        self.buttons()
        
        # no of questions
        self.data_size=len(question)
        
        # keep a counter of correct answers
        self.correct=0
```

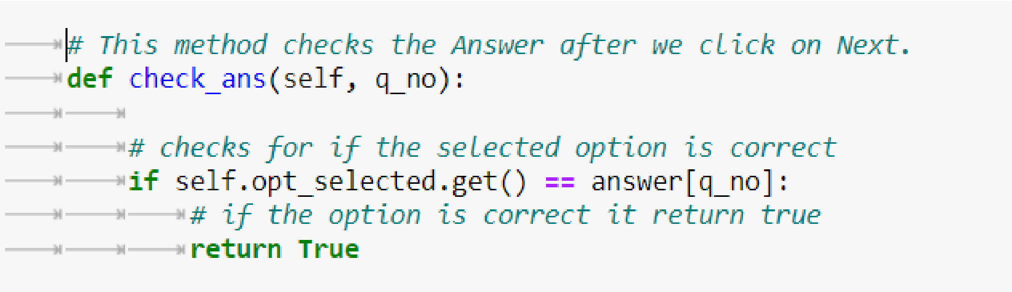
2.4 Displaying the result:

. This method is used to display the result It counts the number of correct and wrong answers and then display them at the end as a message Box



```
    def display_result(self):
        
        # calculates the wrong count
        wrong_count = self.data_size - self.correct
        correct = f"Correct: {self.correct}"
        wrong = f"Wrong: {wrong_count}"
        
        # calcultaes the percentage of correct answers
        score = int(self.correct / self.data_size * 100)
        result = f"Score: {score}%"
        
        # Shows a message box to display the result
        mb.showinfo("Result", f"{result}\n{correct}\n{wrong}")
```

2.5 Verifying the Answers:



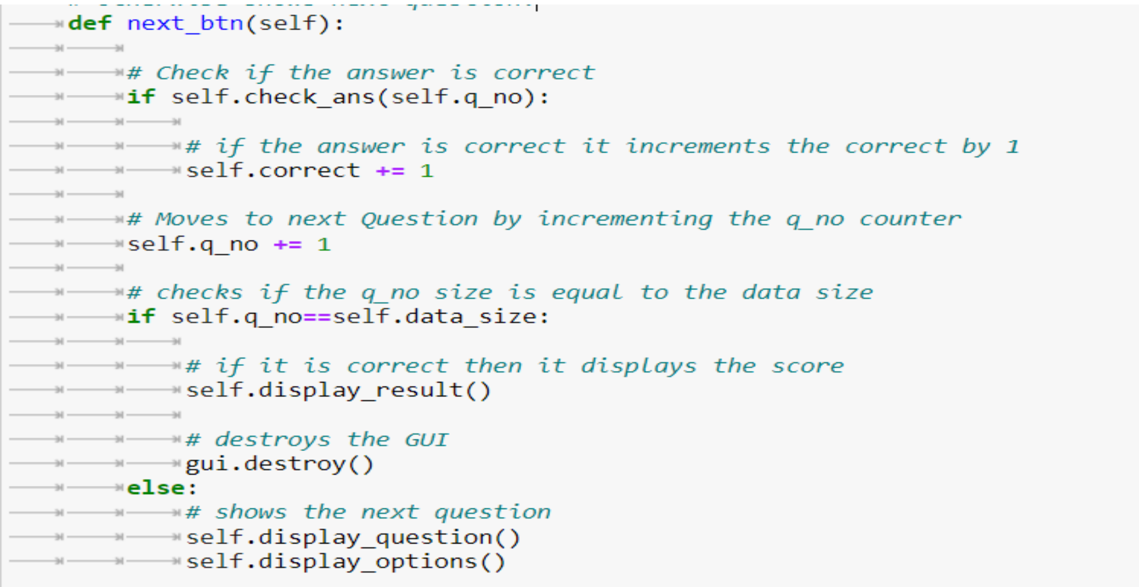
```
    # This method checks the Answer after we click on Next.
    def check_ans(self, q_no):
        
        # checks for if the selected option is correct
        if self.opt_selected.get() == answer[q_no]:
            # if the option is correct it return true
            return True
```

2.6 Creating Next Button:

This method is used to check the answer of the current question by calling the check answer and question no.

If the question is correct it increases the count by 1 and then increase the question number by 1. If it is last question then it calls display result to show the message box.

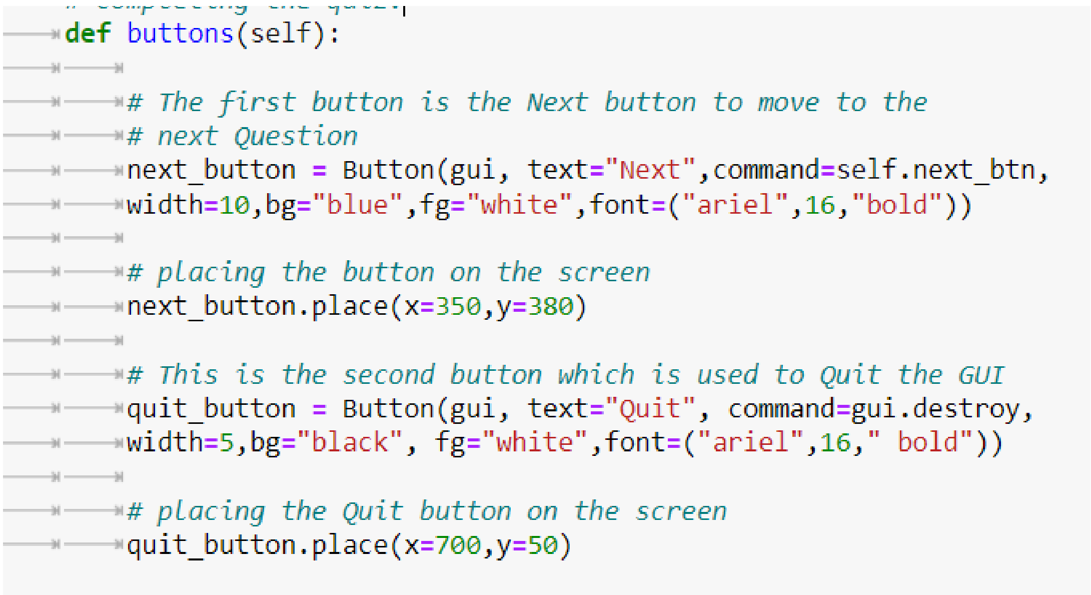
Otherwise shows next question.



```
    def next_btn(self):
        
        # Check if the answer is correct
        if self.check_ans(self.q_no):
            
            # if the answer is correct it increments the correct by 1
            self.correct += 1
        
        # Moves to next Question by incrementing the q_no counter
        self.q_no += 1
        
        # checks if the q_no size is equal to the data size
        if self.q_no==self.data_size:
            
            # if it is correct then it displays the score
            self.display_result()
            
            # destroys the GUI
            gui.destroy()
        else:
            # shows the next question
            self.display_question()
            self.display_options()
```

2.7 Giving Location for Buttons:

This method shows the two buttons on the screen.
The first one is the next button which moves to next question .
It has properties like what text it shows the functionality, size, color, and property of text displayed on button. Then it mentions where to place the button on the screen. The second button is the exit button which is used to close the GUI without completing the quiz.

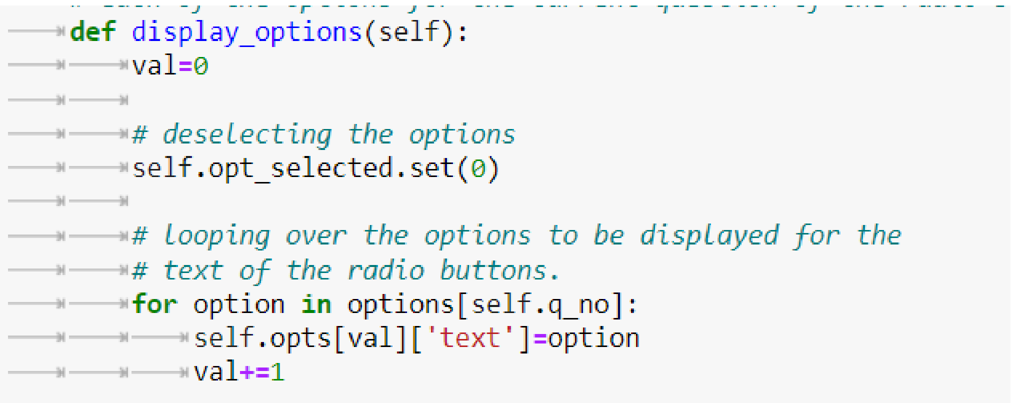


```
    def buttons(self):
        
        # The first button is the Next button to move to the
        # next Question
        next_button = Button(gui, text="Next",command=self.next_btn,
        width=10,bg="blue",fg="white",font=("ariel",16,"bold"))
        
        # placing the button on the screen
        next_button.place(x=350,y=380)
        
        # This is the second button which is used to Quit the GUI
        quit_button = Button(gui, text="Quit", command=gui.destroy,
        width=5,bg="black", fg="white",font=("ariel",16," bold"))
        
        # placing the Quit button on the screen
        quit_button.place(x=700,y=50)
```

2.8 Giving Location and Displaying Options, Questions, Title:

2.8.1 OPTIONS:

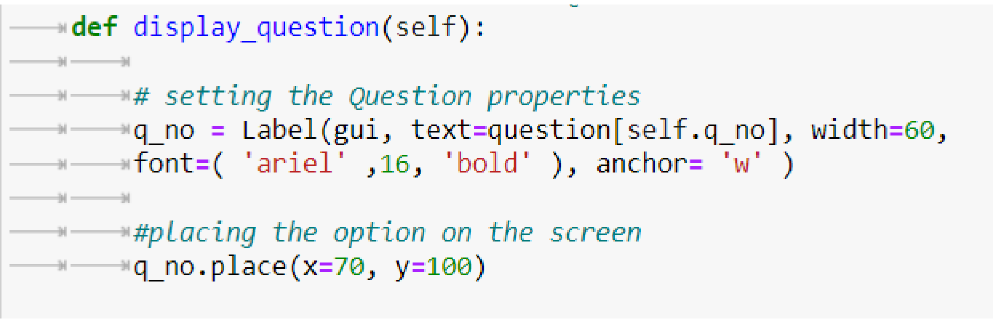
This method deselect the radio button on the screen
Then it is used to display the options available for the current question which we obtain through the question number and Updates each of the options for the current question of the radio button**.**



```
    def display_options(self):
        val=0

        # deselecting the options
        self.opt_selected.set(0)

        # looping over the options to be displayed for the
        # text of the radio buttons.
        for option in options[self.q_no]:
            self.opts[val]['text']=option
            val+=1
```

2.8.2 QUESTIONS:

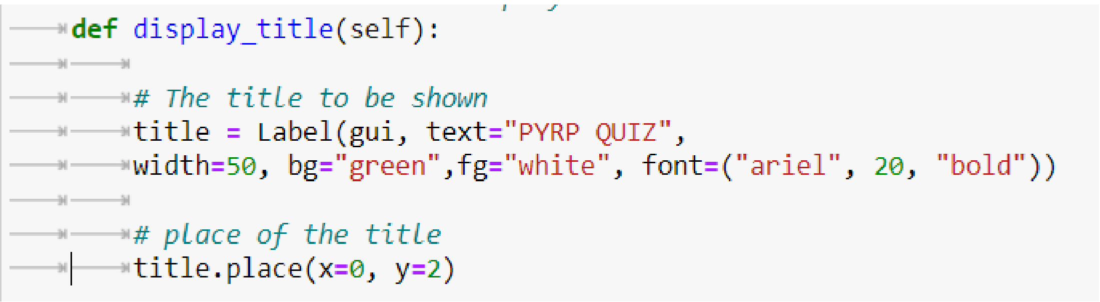
This method shows the current Question on the screen



```
    def display_question(self):

        # setting the Question properties
        q_no = Label(gui, text=question[self.q_no], width=60,
        font=( 'ariel' ,16, 'bold' ), anchor= 'w' )

        #placing the option on the screen
        q_no.place(x=70, y=100)
```

2.8.3 TITLE:

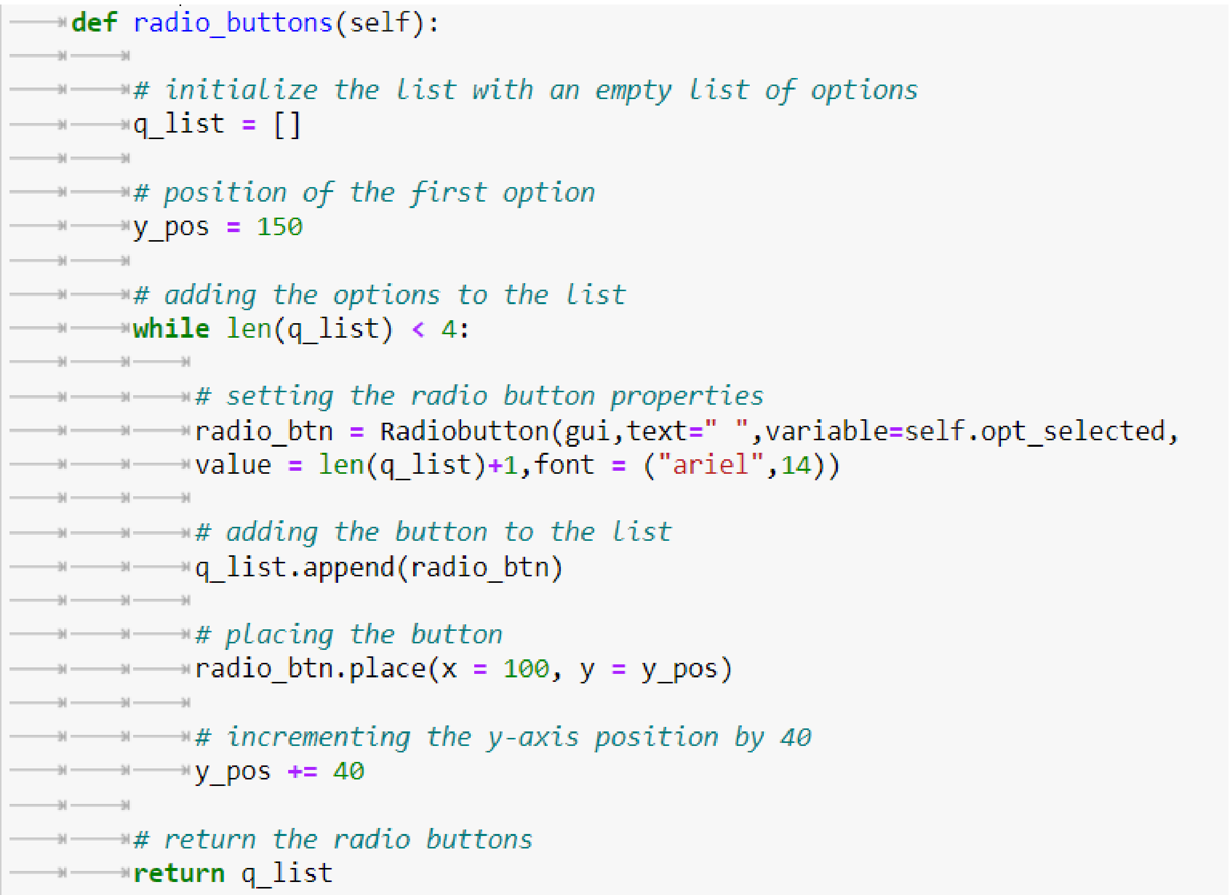
This method is used to Display Title



```
    def display_title(self):

        # The title to be shown
        title = Label(gui, text="PYRP QUIZ",
        width=50, bg="green",fg="white", font=("ariel", 20, "bold"))

        # place of the title
        title.place(x=0, y=2)
```

2.9 Creating Radio Buttons:

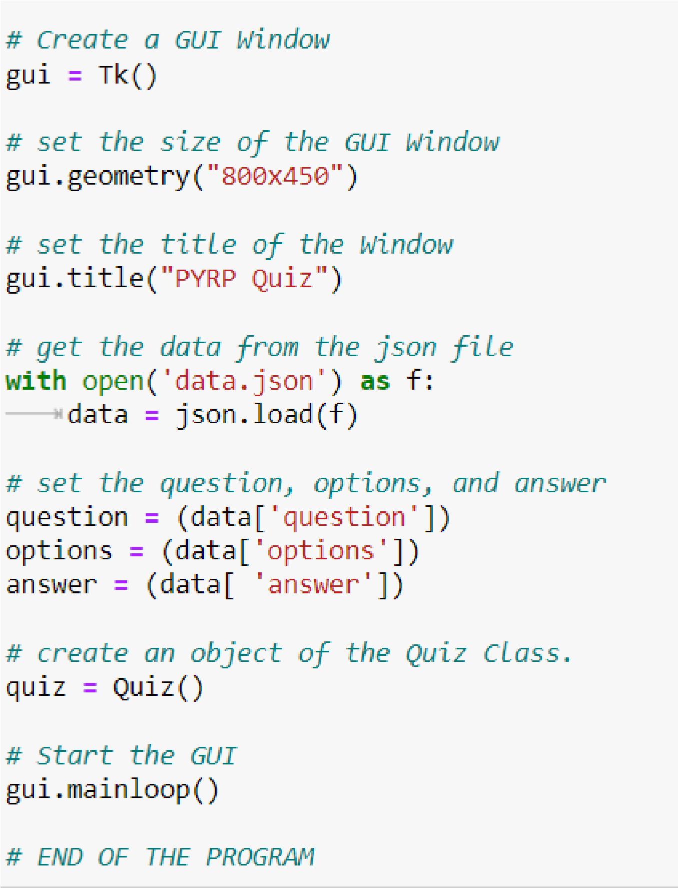
This method shows the radio buttons to select the Question on the screen at the specified position. It also returns a list of radio button which are later used to add the options to them.



```
    def radio_buttons(self):

        # initialize the list with an empty list of options
        q_list = []

        # position of the first option
        y_pos = 150

        # adding the options to the list
        while len(q_list) < 4:

            # setting the radio button properties
            radio_btn = Radiobutton(gui,text=" ",variable=self.opt_selected,
            value = len(q_list)+1,font = ("ariel",14))

            # adding the button to the list
            q_list.append(radio_btn)

            # placing the button
            radio_btn.place(x = 100, y = y_pos)

            # incrementing the y-axis position by 40
            y_pos += 40

        # return the radio buttons
        return q_list
```

3.0 Creating a GUI Window and all the functions:

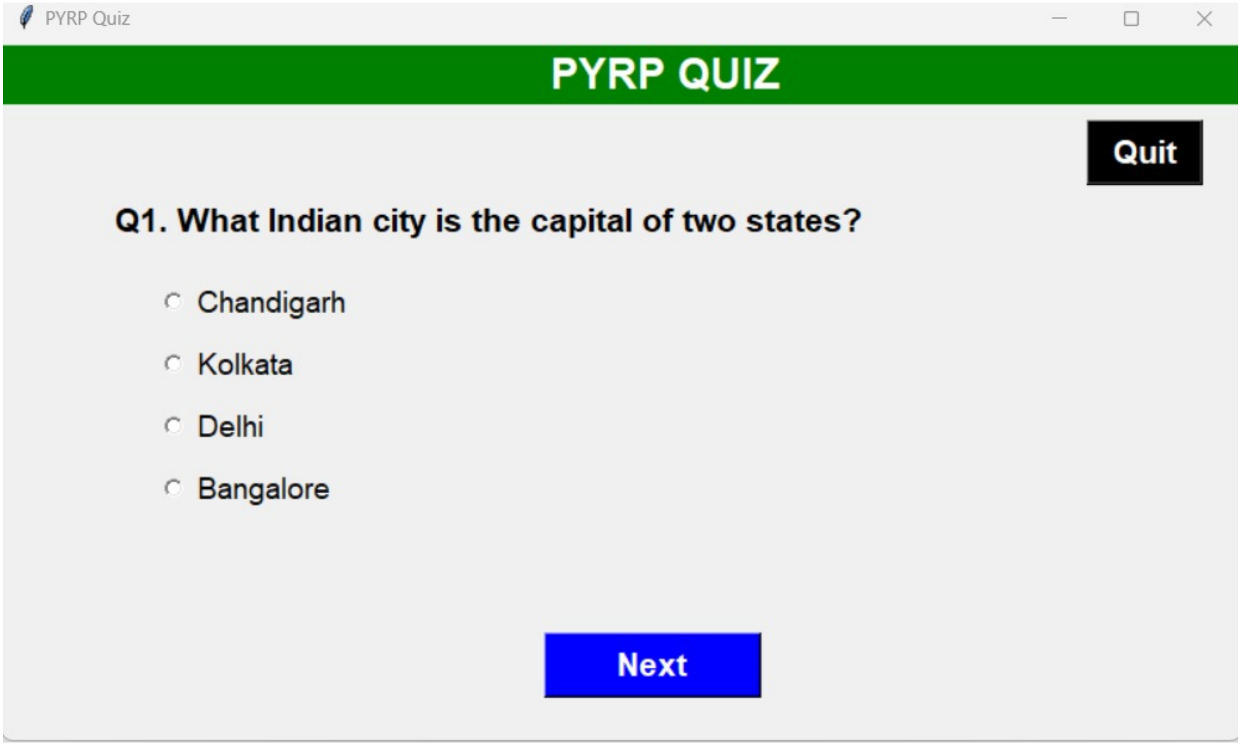
In this part we are creating a msg box or a window where it gives a locations for all buttons, questions, etc.. and it will display all the details in this message box or window by calling all the functions which we created before and we will end the program by pressing any key will be out of the program.



```
# Create a GUI Window
gui = Tk()

# set the size of the GUI Window
gui.geometry("800x450")

# set the title of the Window
gui.title("PYRP Quiz")

# get the data from the json file
with open('data.json') as f:
    data = json.load(f)

# set the question, options, and answer
question = (data['question'])
options = (data['options'])
answer = (data[ 'answer'])

# create an object of the Quiz Class.
quiz = Quiz()

# Start the GUI
gui.mainloop()

# END OF THE PROGRAM
```

3) Results:

OUTPUT:



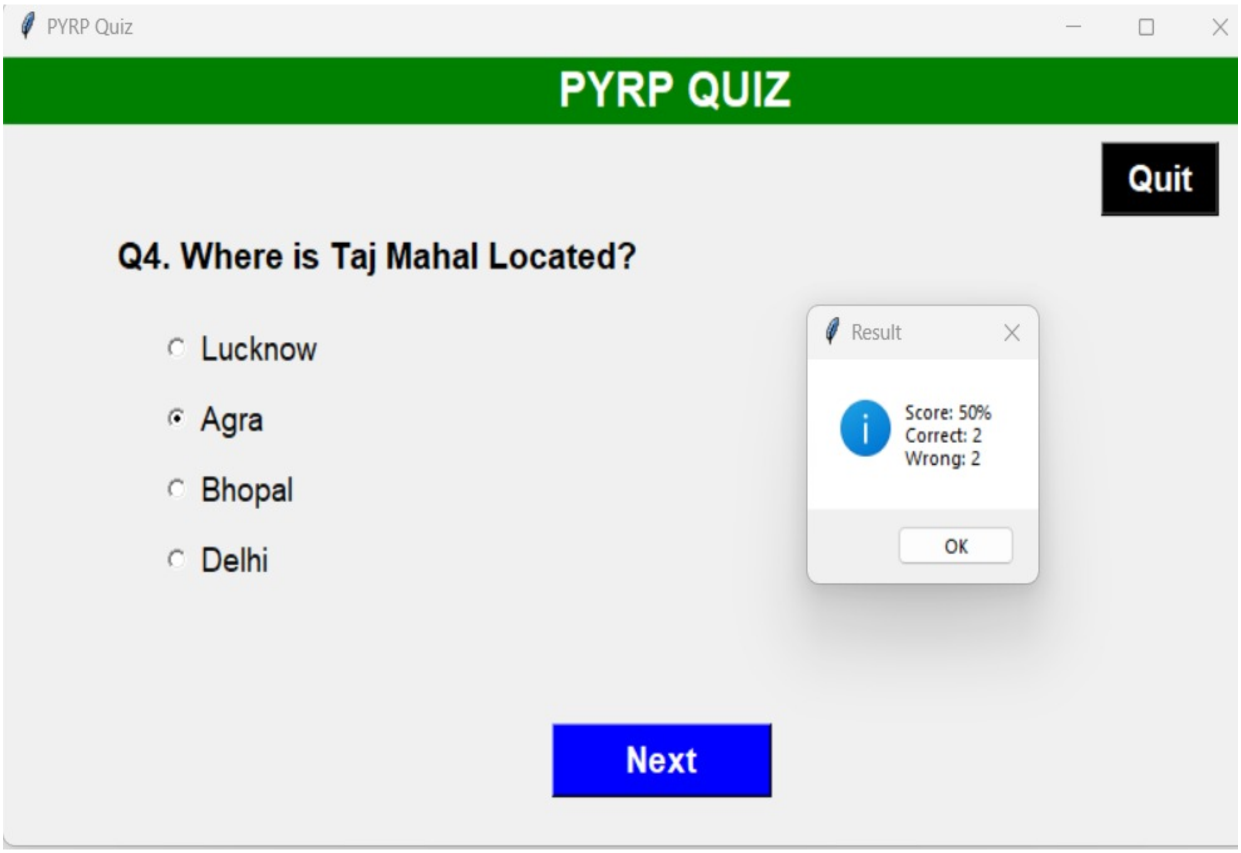
Q1. What Indian city is the capital of two states?

○ Chandigarh

○ Kolkata

○ Delhi

○ Bangalore



Q4. Where is Taj Mahal Located?

○ Lucknow

● Agra

○ Bhopal

○ Delhi

```
Score: 50%
Correct: 2
Wrong: 2
```

4) Conclusion:

In this process of making this project, we have understood the concepts of python and how to implement them. We created a user-friendly Quiz Game which gives both knowledge and entertainment.

-------------------------------- END---------------------------------