A Project Report On

"QUIZ"

Submitted By:

P.Asrith Vatsal

School Roll No: 19

Class: XII B

CBSE Roll No:

Under the Guidance of

Mr. Anoop V S

PGT (Computer Science)

Department of Computer Science

SAINIK SCHOOL KALIKIRI

Department of Computer Science

SAINIK SCHOOL KALIKIRI

This is to certify that **Cdt. P.ASRITH VATSAL,** Roll No. 19 of Class XII has prepared the report on the Project entitled **"QUIZ"**. The report is the result of his efforts & endeavors. The report is found worthy of acceptance as final project report for the subject Computer Science of Class XII.

Signature

(Internal Examiner)

Signature

(External Examiner)

DECLARATION

I hereby declare that the project work entitled "**QUIZ**", submitted to Department of **Computer Science**, SAINIK SCHOOL KALIKIRI is **prepared by me**. All the **coding** is the result of my **personal efforts**.

Cdt. P.Asrith Vatsal
Roll No: 19
Class: XII B
SAINIK SCHOOL KALIKIRI

ACKNOWLEDGEMENT

I would like to express a deep sense of thanks & gratitude to my **project guide Mr. Anoop V S** Sir for guiding me immensely through the course of the project. He always evinced keen interest in my work. His constructive advice & **constant motivation** have been responsible for the **successful** completion of this project.

My sincere thanks go to **Lt Col Susheel Kumar Mahapatro SM ,** our **Offg Principal** sir, for his co-ordination in extending every **possible support** for the completion of this project.

I also thanks to my **parents** for their **motivation & support**. I must thanks to my **classmates** for their timely help & support for **compilation** of this **project**.

Last but not the least, I would like to thank all those who had helped directly or indirectly towards the completion of this project.

Cdt. P.Asrith Vatsal
Roll No: 19
Class: XII B
SAINIK SCHOOL KALIKIRI

CONTENTS

1. WORKING DESCRIPTION

The program has two main functions.

1. **TO OPEN AS ADMIN.**
   - **a.** Here we would update and delete the questions while we work as admin.

2. **THE QUIZ GAME.**
   - **a.** This option consists of two rounds with an assessment round to go to the last round that is the second round.
   - **b.** The two rounds are:
     - **i.** Rebuttal round
       It consists of questions where the system asks 5 Questions and user would also ask 5 questions.
     - **ii.** Assessment round
       It consists of a single question to go to the next round.
     - **iii.** Riddle round
       It consist 5 questions and user has to answer them.

2. Code of the Project

Note: There 2 python files in this project

main.py

```
import mysql.connector as sq
import random as r
from mysql.connector import Error as sqlerror
from os import system
from time import sleep
from getpass import getpass
from admin import main_admin_menu
user_points = 0
computer_points = 0
random_list = []
x = 1



def start_program():
    """The start of the program"""
    while True:
        system('cls')
        print("\n~~~~~~~~~~~~~ QUIZ INTERFACE ~~~~~~~~~~~~~~~")
        print("Press (0) to Log in as Admin")
        print("Press (1) to Play the Game")
        print("Press (2) to exit the program")

        user_input = input("Please Enter your choice : ")
        if user_input == '0':
            login_as_admin()
        elif user_input == '1':
            start_rebuttal()
        else:
            exit_program()

def exit_program():
    print("Thank You for using the program.")
    exit()

def login_as_admin():
    """This function handles the logging in of admin to the program"""
    conn = sq.connect(host='localhost', user='root',
                      password='student', database='quiz')
    cursor = conn.cursor()

    username_input = input('Please Enter your username : ')

    cursor.execute(f"select * from admin_user where username = '{username_input}'")
    data = cursor.fetchone()
    if data == ():
```

```
        print("The entered username does not exists in the database. Please contact
the developer")
        sleep(1)
        start_program()
    else:
        password_input = getpass('Please Enter your password : ')
        if password_input == data[2]:
            print('You have successfully logged in as admin')
            sleep(1.5)
            main_admin_menu()
        else:
            print(f"The entered password for the username <{username_input}> is
invalid. Please try Again")
            sleep(1.5)
            start_program()


def get_questions():

    conn = sq.connect(host='localhost', user='root',
                      password='student', database='quiz')
    cursor = conn.cursor()

    cursor.execute("SELECT * FROM questions")
    data = cursor.fetchall()
    conn.close()
    return data


def append_mistakes(question, given_answer, correct_answer):
    conn = sq.connect(host='localhost', user='root',
                      password='student', database='quiz')
    cursor = conn.cursor()

    cursor.execute(
        f"INSERT INTO mistakes VALUES
('{question}','{given_answer}','{correct_answer}')")
    conn.commit()
    conn.close()

    print(f"The question has been updated successfully. Thank you")


def start_rebuttal():
    system('cls')
    print(f"\n>>>>> ROUND 1 : REBUTALL QUIZ <<<<<\n")
    print(f"Rules :")
    print(f"1. This ROUND will consist of 10 questions")
    print(f"2. User and computer can ask questions one after another. Who get's the
higest points win's the game")
    print(f"3. You should not ask the same question twice")
    print(f"4. If the user qualifies ROUND 1. There will be a assessment question to
qualify for the FINAL ROUND")
```

```
    print(f"5. If you're score is less than the computer, you are not eligible for
assessment")
    global x, user_points, computer_points, username
    username = input("\nEnter your name to start the game: ")

    if username == '' or username == '\n':
        print(f"You have not entered your name. You are not eligible to play this
game")
        print("Please start the game again")
        exit()

    while x <= 10:
        print(f"Question {x}: ")
        if x % 2 != 0:
            computer_question()
        else:
            user_question()

        x += 1

    else:
        print(f"### ROUND 1 COMPLETED ###")
        show_points(user_points, computer_points)

        if user_points > computer_points:
            start_assessment()

        else:
            print(f"\nYou did not qualify the REBUTTAL ROUND. Better Luck Next Time")
            exit()


def start_assessment():
    print("The Riddle to get to the Final Round")

    conn = sq.connect(host='localhost', user='root',
                      password='student', database='quiz')
    cursor = conn.cursor()

    cursor.execute(f"SELECT * FROM assessment")
    data = cursor.fetchone()
    conn.close()

    print(f"\n*** ASSESSMENT QUESTION ***")
    print(f"\nQueston : {data[0]}")

    user_answer_input = input("Enter your answer : ")

    if user_answer_input.lower() == data[1].lower():
        print(f"\n#### CORRECT ANSWER ####")
        print("\nYou are qualified for the 'FINAL ROUND'")
        start_riddle()

    else:
```

```
        print(f"You didn't qualify the assessment. Better Luck Next Time")
        exit()


def start_riddle():
    print(f"\n>>>>> FINAL ROUND : Riddle Time <<<<<\n")
    print(f"Rules : ")
    print(f"1. This round will consit of 5 questions")
    print(f"2. Only the computer can ask questions and the user has to answer to the
question")

    r_list = []
    user_score = 0
    conn = sq.connect(host='localhost', user='root',
                      password='student', database='quiz')
    cursor = conn.cursor()

    cursor.execute(f"SELECT * FROM riddles")
    data = cursor.fetchall()

    conn.close()

    for i in range(5):

        random_number = r.randint(1, len(data) - 1)

        if random_number not in r_list:
            r_list.append(random_number)

            print(f"Riddle {i+1}")
            print(f"{data[random_number][0]}")

            user_answer = input("Enter you answer : ")

            if user_answer.lower() == data[random_number][1].lower():
                print("\nCORRECT ANSWER")
                user_score += 1
                print(f"{username} Score is {user_score}")

            else:
                print(f"The Correct Answer is {data[random_number][1]}")
                print(f"{username} Score is {user_score}")

        else:
            continue

    print(f"You have completed the FINAL ROUND")
    final_score = user_points + 1 + user_score
    print(f"Your final score is {final_score}")
    print(f"Thank you for joining the Program")
    print(f"Have a nice day!!")
    exit()
```

```
def show_points(user, comp):
    global username
    print(f"\n{username} obtained {user} points")
    print(f"Computer obtained {comp} points\n")


def computer_question():

    global user_points, computer_points, random_list
    data = get_questions()
    while True:

        random_number = r.randint(0, len(data) - 1)

        if random_number not in random_list:
            random_list.append(random_number)
            question = data[random_number][0]
            answer = data[random_number][1]
            print(f"\nComputer Turn to ask question\n")
            print(f"\nQuestion : {question}")
            user_answer = input("\nEnter the answer for the question : ")

            if user_answer.lower() == answer.lower():
                print(f"\nCorrect Answer")
                user_points += 1
                show_points(user_points, computer_points)
                return None
            else:
                computer_points += 1
                print(f"\nWrong Answer")
                print(f"The Correct Answer is {answer}")

                user_conf = input("Is the given answer correct (Y / N) : ")

                if user_conf in ['y', 'Y']:
                    print(f"Thank you for your confirmation.")

                else:
                    print(f"You said that the given answer is wrong")
                    correct_input = input("Please Enter the correct answer : ")
                    append_mistakes(question, answer, correct_input)
                    show_points(user_points, computer_points)
                return None

        else:
            continue


def user_question():
    global username, user_points, computer_points, random_list
    print(f"{username} Turn to ask question\n")

    question_input = input("Enter your question : ")
    answer = get_user_answer(question_input)
```

```
    if answer:
        print(f"The answer to the question is {answer}")
        computer_points += 1

    else:
        print(f"Couldn't find the answer to the question")
        user_points += 1
        answer_input = input(
            f"Enter the correct answer for the question asked : ")
        add_question(question_input, answer_input)

    show_points(user_points, computer_points)


def get_user_answer(user_question):
    data = get_questions()

    for question, answer in data:
        if question.lower() == user_question.lower():
            return answer

    else:
        return None


def add_question(question, answer):
    conn = sq.connect(host='localhost', user='root',
                      password='student', database='quiz')
    cursor = conn.cursor()

    if question == '' or question == '\n':
        pass

    else:
        try:
            cursor.execute(
                f"INSERT INTO questions VALUES ('{question}','{answer}')")
            conn.commit()
            print(f"\nThank you for the new question. I got some knowledge")
            conn.close()

        except sqlerror:
            print(f"\nAn error occurred couldn't add the question to the database")
            conn.close()


if __name__ == '__main__':
    start_program()
```

admin.py

```
import mysql.connector as sq
import random as r
from prettytable import PrettyTable
from mysql.connector import Error as sqlerror
from os import system
from time import sleep
from getpass import getpass

def print_mistakes_table():
    """This function prints the mistakes table"""
    conn = sq.connect(host='localhost', user='root',
                      password='student', database='quiz')
    cursor = conn.cursor()

    cursor.execute("select * from mistakes")
    data = cursor.fetchall()

    table = PrettyTable()
    table.field_names = ['Question', 'Given Answer','User Given Answer']
    for row in data:
        table.add_row(row)
    conn.close()

    return table

def return_questions_data():
    """Returns the prettytable of questions along with questions in dictionary
format"""
    conn = sq.connect(host='localhost', user='root',
                      password='student', database='quiz')
    cursor = conn.cursor()

    cursor.execute("select * from questions")
    data = cursor.fetchall()

    table = PrettyTable()
    table.field_names = ['Question', 'Answer']
    questions = {}
    for q,a in data:
        table.add_row([q,a])
        questions[q] = a
    conn.close()

    return table, questions

def correct_append_mistakes():
    conn = sq.connect(host='localhost', user='root',
                      password='student', database='quiz')
    cursor = conn.cursor()

    print("-- Mistakes table --")
    mistakes_table = print_mistakes_table()
```

```
    print(mistakes_table)
    print('\n')
    sleep(1.5)
    print("-- Questions table --")
    table, questions_dict = return_questions_data()
    print(table)

    question_input = input("Enter the question to update it : ").lower()

    if question_input not in questions_dict:
        print("Please enter the complete question as in the table.")
        return None
    else:
        print('Press (1) to change the question')
        print('Press (2) to change the answer')

        change_input = input("Please enter you choice : ")
        if change_input not in ['1','2']:
            print("You have entered an invalid choice. Please Try Again.")

        elif change_input == '1':
            print("You chose to change the question.")

            new_question_input = input("Plese Enter the new question : ")
            confirm = input("Are you sure you want to update (Y / N) : ")
            if confirm in ['y','Y']:
                cursor.execute(f"update questions set question =
'{new_question_input}' where question = '{question_input}'")
                conn.commit()
                print("YOU HAVE SUCCESSFULLY UPDATED THE QUESTION")
            else:
                print("You chose not to update the question.")
                return None

        elif change_input == '2':
            print("You chose to change the answer for a question")

            new_answer_input = input("Please Enter the new answer : ")
            confirm = input("Are you sure you want to update (Y / N) : ")
            if confirm in ['y','Y']:
                cursor.execute(f"update questions set answer = '{new_answer_input}'
where question = '{question_input}'")
                conn.commit()
                print("YOU HAVE SUCCESSFULLY UPDATED THE ANSWER FOR THE QUESTION")
            else:
                print("You chose not to update the answer of the questions.")
                return None

        else:
            pass

def delete_question():
    """This function allows the admin user to delete the question from the questions
table"""
```

```
    conn = sq.connect(host='localhost', user='root',
                      password='student', database='quiz')
    cursor = conn.cursor()

    table, questions = return_questions_data()
    print(table)
    sleep(1.5)

    question_input = input("Enter the question to delete : ")
    if question_input in questions:
        confirm_input = input("Are you sure you want to delete the question (Y / N) :
")
        if confirm_input.lower() == 'y':
            cursor.execute(f"delete from questions where question =
'{question_input}'")
            conn.commit()
            print("\nThe question has been deleted successfully.")
            conn.close()
        else:
            print("You chose not to delete the question.")
            conn.close()
            return None

    else:
        print("The question was not found in the database. Please enter the question
as in the table")
        conn.close()
        return None


def clear_mistakes_table():
    """This function lets the admin user clears the mistakes table"""
    conn = sq.connect(host='localhost', user='root',
                      password='student', database='quiz')
    cursor = conn.cursor()
    table = print_mistakes_table()
    print(table)
    sleep(1.5)
    confirm_input = input("Are you sure you want to delete the mistakes table (Y / N)
: ")
    if confirm_input.lower() == 'y':
        cursor.execute("delete from mistakes")
        conn.commit()
        print("\n")
        print("Mistakes table has been successfully cleared.\n")
    else:
        print("You chose not to clear the mistakes table")
        conn.close()
        return None


def exit_program():
    print("Thank You for using the program.")
    exit()
```

```
def main_admin_menu():
    """This function prints the admin menu and takes input from the user"""
    system('cls')
    while True:
        print("----- ADMIN MENU -----")
        print("Press (1) to append the mistakes in questions of ROUND 1")
        print("Press (2) to delete a question from questions table")
        print("Press (3) to clear the mistakes table")
        print("Press (4) to go the main menu")
        print("Press (5) to exit the program")

        admin_user_dict = {'1' : correct_append_mistakes,
                           '2' : delete_question,
                           '3' : clear_mistakes_table,
                           '5' : exit_program}
        admin_user_input = input("Enter you choice : ")

        if admin_user_input in admin_user_dict:
            admin_user_dict[admin_user_input]()

        elif admin_user_input == '4':
            return None

        else:
            print("You have entered an invalid option. Please Try Again")
            continue
```

3. Output Screens

Starting screen

```
~~~~~~~~~~~~~~ QUIZ INTERFACE ~~~~~~~~~~~~~~~~
Press (0) to Log in as Admin
Press (1) to Play the Game
Press (2) to exit the program
Please Enter your choice :
```

Logging in as Admin

```
Please Enter your choice : 0
Please Enter your username : asrith
Please Enter your password :
You have successfully logged in as admin
```

Admin Menu

```
----- ADMIN MENU -----
Press (1) to append the mistakes in questions of ROUND 1
Press (2) to delete a question from questions table
Press (3) to clear the mistakes table
Press (4) to go the main menu
Press (5) to exit the program
Enter you choice :
```

Option 1: To append the mistakes in questions of ROUND 1

```
Enter the question to update it : who is the founder of linux
Press (1) to change the question
Press (2) to change the answer
Please enter you choice : 2
You chose to change the answer for a question
Please Enter the new answer : linus trovalds
Are you sure you want to update (Y / N) : Y
YOU HAVE SUCCESSFULLY UPDATED THE ANSWER FOR THE QUESTION
```

Option 2: To delete a question from questions table

```
Enter you choice : 2
+-------------------------------------------------------------+-----------------------------+
|                          Question                           |           Answer            |
+-------------------------------------------------------------+-----------------------------+
|                             b                               |              b              |
|                             i                               |              i              |
|       in which year sainik school kalikiri was founded      |             2014            |
|                             j                               |              j              |
|                             o                               |              o              |
|                             q                               |              q              |
|                             r                               |              r              |
|                             u                               |              u              |
|              what is the nearest star to earth              |             sun             |
|                       who invented git                      |       linus trovalds        |
|                    who invented python                      |      guido van rossum       |
|            who is  naval chief of staff of India            |   admiral karambir singh    |
|              who is the chief justice of india              | justice sharad arvind bodbe |
|        who is the current indian cricket team skipper       |         virat kohli         |
|                who is the first CDS of india                |       gen bipin rawat       |
| who is the first indian women to join indian navy as a pilot |       sub lt shivangi       |
|         who is the lt. governer of jammu and kashmir        |          g c murmu          |
|              who is the lt. governer of ladakh              |          r k mathur         |
|                             y                               |              y              |
|                             z                               |              z              |
+-------------------------------------------------------------+-----------------------------+
Enter the question to delete : b
Are you sure you want to delete the question (Y / N) : Y

The question has been deleted successfully.
```

Option 3: To clear the mistakes table

```
Enter you choice : 3
+---------------------+---------------+--------------------+
|       Question      |  Given Answer | User Given Answer  |
+---------------------+---------------+--------------------+
| who invented python | denis ritchie |  guido van rossum  |
+---------------------+---------------+--------------------+
Are you sure you want to delete the mistakes table (Y / N) : Y


Mistakes table has been successfully cleared.
```

Option 1 in Main Menu (To play the game)

Round one

```
>>>>> ROUND 1 : REBUTALL QUIZ <<<<<

Rules :
1. This ROUND will consist of 10 questions
2. User and computer can ask questions one after another. Who get's the higest points win's the game
3. You should not ask the same question twice
4. If the user qualifies ROUND 1. There will be a assessment question to qualify for the FINAL ROUND
5. If you're score is less than the computer, you are not eligible for assessment

Enter your name to start the game: roashan
```

```
Enter your name to start the game: roashan
Question 1:

Computer Turn to ask question


Question : who invented git

Enter the answer for the question : linus trovalds

Correct Answer

roashan obtained 1 points
Computer obtained 0 points

Question 2:
roashan Turn to ask question

Enter your question : g
Couldn't find the answer to the question
Enter the correct answer for the question asked : g

Thank you for the new question. I got some knowledge

roashan obtained 2 points
Computer obtained 0 points

Question 3:
```

```
### ROUND 1 COMPLETED ###

roashan obtained 8 points
Computer obtained 2 points
```

If you don’t qualify round one you can’t attend round two

Assessment round

```
The Riddle to get to the Final Round

*** ASSESSMENT QUESTION ***

Queston : Which kind of fruit must have a large wedding ceremony with lots of people in attendance?
Enter your answer : can't elope

#### CORRECT ANSWER ####

You are qualified for the 'FINAL ROUND'
```

If you fail to answer the question your quiz will be completed.

Final round(riddle round)

```
Riddle 1
Born in an instant, I tell all stories. I can be lost, but I never die. What am I?
Enter you answer : memories

CORRECT ANSWER
roashan Score is 1
Riddle 2
What word in the English language does the following: the first two letters signify a male, the first three letters signify a female, the first four letters signify
 greatness, while the entire world signifies a great woman.
Enter you answer : heroine
```

```
CORRECT ANSWER
roashan Score is 3
You have completed the FINAL ROUND
Your final score is 12
Thank you for joining the Program
Have a nice day!!
```

4. BIBLIOGRAPHY

1. Computer Science with Python [Textbook XII] by Sumita Arora
2. https://ptable.readthedocs.io/en/latest/
3. https://docs.python.org/3/library/getpass.html