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'''AIM: WAP TO CREATE KBC QUIZ
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def load_questions(filename):  # Takes the file path (filename) as input
    questions = []  # Initialize an empty list to store questions
    with open(filename, 'r') as file:  # Open the text file for reading
        lines = file.readlines()  # Read all lines from the file

        i = 0
        while i < len(lines):
            question = lines[i].strip()  # The question text
            options = {
                'A': lines[i+1].strip().split('. ')[1],  # Option A
                'B': lines[i+2].strip().split('. ')[1],  # Option B
                'C': lines[i+3].strip().split('. ')[1],  # Option C
                'D': lines[i+4].strip().split('. ')[1]  # Option D
            }
            correct_answer = lines[i+5].strip().split(': ')[1]  # Correct answer

            # Add the question data (question, options, correct answer) to the list
            questions.append({
                'question': question,
                'options': options,
                'correct_answer': correct_answer
            })

            # Move to the next question block (next set of 6 lines)
            i += 6
    return questions
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def play_game(questions):
    score = 0
    for q in questions:
        print(f"{q['question']}")
        for option, answer in q['options'].items():
            print(f"{option}. {answer}")

        player_answer = input("Enter your answer (A/B/C/D): ").upper()

        if player_answer == q['correct_answer']:
            score += 1
            print("Correct!\n")
        else:
            print(f"Incorrect! The correct answer was {q['correct_answer']}.\n")
            break  # End the game if the player answers incorrectly

    print(f"Game Over! Your final score is: {score}/{len(questions)}")


def main():
    filename = 'questions.txt'  # The file that contains the quiz questions
    questions = load_questions(filename)  # Pass the filename here (not 'questions')
    print("Welcome to the KBC Quiz Game!\n")
    play_game(questions)


if __name__ == "__main__":
    main()
```

```
Welcome to the KBC Quiz Game!

What is the capital of France?
A. Berlin
B. Madrid
C. Paris
D. Rome
Enter your answer (A/B/C/D): C
Correct!

What is 5 + 7?
A. 11
B. 12
C. 13
D. 14
Enter your answer (A/B/C/D): B
Correct!

Who wrote "Romeo and Juliet"?
A. Charles Dickens
B. William Shakespeare
C. Jane Austen
D. Mark Twain
Enter your answer (A/B/C/D): A
Incorrect! The correct answer was B.

Game Over! Your final score is: 2/3
```

'''AIM: WAP TO CALCULATE TO CALCULATE THE AREA AND PERIMETER OF SQUARE RECTANGLE AND CIRCLE

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import math

def rectangle():
    length = float(input("Enter the length of the rectangle: "))
    width = float(input("Enter the width of the rectangle: "))
    area = length * width
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    perimeter = 2 * (length + width)
    print(f"Area of the rectangle: {area}")
    print(f"Perimeter of the rectangle: {perimeter}\n")
def square():
    side = float(input("Enter the side length of the square: "))
    area = side * side
    perimeter = 4 * side
    print(f"Area of the square: {area}")
    print(f"Perimeter of the square: {perimeter}\n")
def circle():
    radius = float(input("Enter the radius of the circle: "))
    area = math.pi * radius ** 2
    circumference = 2 * math.pi * radius
    print(f"Area of the circle: {area}")
    print(f"Circumference of the circle: {circumference}\n")

# Main function to drive the program
def main():
    while True:
        # Asking the user to choose a shape
        print("Choose a shape to calculate:")
        print("1. Rectangle")
        print("2. Square")
        print("3. Circle")
        print("4. Exit")

        choice = input("Enter your choice (1/2/3/4): ")

        # Perform the appropriate calculation based on user's choice
        if choice == '1':
            rectangle()
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    elif choice == '2':
        square()
    elif choice == '3':
        circle()
    elif choice == '4':
        print("Exiting the program. Goodbye!")
        break
    else:
        print("Invalid choice, please try again.\n")

# Running the main function
if __name__ == "__main__":
    main()
```

```
Choose a shape to calculate:
1. Rectangle
2. Square
3. Circle
4. Exit
Enter your choice (1/2/3/4): 2
Enter the side length of the square: 4
Area of the square: 16.0
Perimeter of the square: 16.0
```

```
Choose a shape to calculate:
1. Rectangle
2. Square
3. Circle
4. Exit
Enter your choice (1/2/3/4): 3
Enter the radius of the circle: 7
Area of the circle: 153.93804002589985
Circumference of the circle: 43.982297150257104
```

```
Choose a shape to calculate:
1. Rectangle
2. Square
3. Circle
4. Exit
Enter your choice (1/2/3/4): 1
Enter the length of the rectangle: 5
Enter the width of the rectangle: 3
Area of the rectangle: 15.0
Perimeter of the rectangle: 16.0
```

```
Choose a shape to calculate:
1. Rectangle
2. Square
3. Circle
4. Exit
Enter your choice (1/2/3/4): 4
Exiting the program. Goodbye!
```