

## ASSIGNMENT-5(Case Study)

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```
def questions():
```

```
    questions = {
```

```
        1: {"question": "What data type is used to store a sequence of characters in Python?",
            "options": {"A": "int", "B": "float", "C": "str", "D": "bool"}, "answer": "C"},
```

```
        2: {"question": "Which keyword is used to define a function in Python?", "options":
            {"A": "func", "B": "define", "C": "def", "D": "function"}, "answer": "C"},
```

```
        3: {"question": "What will be the output of print(2 ** 3)?", "options": {"A": "5", "B":
            "6", "C": "8", "D": "9"}, "answer": "C"},
```

```
        4: {"question": "Which of the following is used to take user input in Python?",
            "options": {"A": "input()", "B": "scan()", "C": "read()", "D": "get()"}, "answer": "A"},
```

```
        5: {"question": "What is the correct way to start a comment in Python?", "options":
            {"A": "///", "B": "/*", "C": "--", "D": "#"}, "answer": "D"}
```

```
    }
```

```
    return questions
```

```
def run_quiz():
```

```
    quest = questions()
```

```
    score = 0
```

```
    for i, q in quest.items():
```

```
        print(f"\nQuestion {i}: {q['question']}")
```

```
        for key, value in q['options'].items():
```

```
            print(f"{key}) {value}")
```

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

```
    while user_answer not in ["A", "B", "C", "D"]:
```

```
        user_answer = input("Invalid input! Please enter A, B, C, or D: ").strip().upper()
```

```
if user_answer == q['answer']:
    print("Correct!")
    score += 1
else:
    print(f"Wrong! The correct answer was {q['answer']}")
```

```
final_score = (score / len(quest)) * 100
print(f"\nFinal Score: {final_score:.2f}%")
if final_score >= 80:
    print("Excellent")
elif final_score >= 50:
    print("Good")
else:
    print("You need to improve")
```

```
retry = input("Would you like to restart the quiz? (yes/no): ").strip().lower()
if retry == "yes":
    run_quiz()
else:
    print("Thanks for playing!")
```

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

## OUTPUT

Question 1: What data type is used to store a sequence of characters in Python?

- A) int
- B) float
- C) str
- D) bool

Enter your answer (A/B/C/D): a

Wrong! The correct answer was C.

Question 2: Which keyword is used to define a function in Python?

- A) func
- B) define
- C) def
- D) function

Enter your answer (A/B/C/D): c

Correct!

Question 3: What will be the output of `print(2 ** 3)`?

- A) 5
- B) 6
- C) 8
- D) 9

Enter your answer (A/B/C/D): c

Correct!

Question 4: Which of the following is used to take user input in Python?

- A) `input()`
- B) `scan()`
- C) `read()`
- D) `get()`

Enter your answer (A/B/C/D): a

Correct!

Question 5: What is the correct way to start a comment in Python?

A) //

B) /\*

C) --

D) #

Enter your answer (A/B/C/D): b

Wrong! The correct answer was D.

Final Score: 60.00%

Good

Would you like to restart the quiz? (yes/no): no

Thanks for playing!