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Batch:19

ID:BPP2419-14

Ans:

```
# Define the questions, options and correct answer
questions = [
  {
    "question": "What is the output of print(type(5)) in Python?",
    "options": ["A. int", "B. str", "C. float", "D. None"],
    "answer": "A"
  },
  {
    "question": "What is the output of print('Hello' + 'World') in Python?",
    "options": ["A. HelloWorld", "B. Hello World", "C. TypeError", "D. Hello+World"],
    "answer": "A"
  },
  {
    "question": "Which of the following is used to comment a single linein Python?",
    "options": ["A. //", "B. #", "C. /*", "D. <!--"],
    "answer": "B"
```

```
},
{
    "question": "What is the output of print(2 ** 3) in Python?",
    "options": ["A. 7", "B. 8", "C. 10", "D. 27"],
    "answer": "B"
},
{
    "question": "Which keyword is used to define a function in Python?",
    "options": ["A. func", "B. define", "C. def", "D. function"],
    "answer": "C"
},
{
    "question": "What is the output of print(len('Python')) in Python?",
    "options": ["A. 9", "B. 6", "C. 4", "D. TypeError"],
    "answer": "B"
},
{
    "question": "Which of the following is a valid Python variable name?",
    "options": ["A. 1var", "B. var-name", "C. _var", "D. var#1"],
    "answer": "C"
},
{
```

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    "question": "What is the output of print(10 / 2) in Python?",
    "options": ["A. 5", "B. 5.0", "C. 2", "D. 2.0"],
    "answer": "B"
  },
  {
    "question": "Which of the following is used to create a list in Python?",
    "options": ["A. {}", "B. []", "C. ()", "D. <>"],
    "answer": "B"
  },
  {
    "question": "What is the output of print('Python'[1:3]) in Python?",
    "options": ["A. Py", "B. yt", "C. th", "D. yth"],
    "answer": "B"
  },
  {
    "question": "Which of the following is used to add an element to the end of a list in Python?",
    "options": ["A. append()", "B. add()", "C. insert()", "D. push()"],
    "answer": "A"
  },
  {
    "question": "What is the output of print(3 * 'a') in Python?",
```

```
    "options": ["A. 'aaa'", "B. '3a'", "C. type error", "D. 'none'"],
    "answer": "A"
  },
  {
    "question": "What is the output of print(10 == '10') in Python?",
    "options": ["A. True", "B. False", "C. TypeError", "D. None"],
    "answer": "B"
  },
  {
    "question": "What is the output of print(list(range(3))) in Python?",
    "options": ["A. [0, 1, 2]", "B. [1, 2, 3]", "C. [0, 1, 2, 3]", "D. [1, 2]"],
    "answer": "A"
  },
  {
    "question": "What is the output of print('Python'.upper()) in Python?",
    "options": ["A. PYTHON", "B. python", "C. Python", "D. TypeError"],
    "answer": "A"
  },
  {
    "question": "Which of the following is used to handle exceptions in Python?",
```

"options": ["A. try-except", "B. try-catch", "C. exception-handle", "D. error-handle"],

"answer": "A"

},

{

"question": "Which of the following is the correct way to import the math module in Python?",

"options": ["A. import math", "B. import Math", "C.import math module", "D. from math import"],

"answer": "A"

},

{

"question":"How can you convert a string to lowercase in Python?",

"options": ["A. str.lower()", "B. str.toLowerCase()", "C.lower(str)", "D. str.lowercase()"],

"answer": "A"

},

{

"question":"Which of the following data types is immutable in Python?",

"options": ["A. list", "B. set", "C. tuple", "D. dict"],

"answer": "C"

},

{

"question": "Which of the following is the correct syntax for a while loop in Python?",

"options": ["A. while x > 5 {}", "B.while(x > 5)", "C. while x > 5:", "D. while x > 5 then"],

"answer": "C"

},

{

"question": " How do you create a variable with the value of 10 in Python?",

"options": ["A. x = 10", "B.let x = 10", "C. var x = 10", "D. dim x = 10"],

"answer": "A"

},

{

"question": " How can you add an element to a set in Python? ",

"options": ["A. set.add()", "B. set.append()", "C. set.insert()", "D. set.appendTo()"],

"answer": "A"

},

{

"question": "Which operator is used to find the remainder of a division in Python?",

"options": ["A) /", "B) // ", "C) %", "D) **"],

"answer": "C"

},

{

"question":"Which of the following is the correct way to access the last element of a list?",

"options": ["A. list[-1]", "B. list[0]", "C. list[last]", "D. list.end()"],

"answer": "A"

},

{

"question":" What does x != y mean in Python?",

"options": ["A. x is equal to y", "B. x is not equal to y", "C. x is greater than y", "D. x is less than y"],

"answer":"B"

},

{

"question":"Which class allows for mutation of a DNA sequence in Biopython?",

"options":["A. MutableString","B. Seq", "C. MutableSeq", "D. StringIO"],

"answer":"A"

},

{

"question":"Which of the following is used to stop the execution of a loop in Python?",

"options": ["A. stop", "B. exit", "C. break", "D. return"],

"answer":"C"

```
    },
    {
        "question":" Which Biopython function is used to get the GC content of a DNA sequence?",
        "options": ["A. gc_content()", "B. GCCount()", "C. gc_fraction()", "D.GC()"],
        "answer": "C"
    },
    {
        "question": "What module is used to read FASTA files in Biopython?",
        "options": ["A. Bio.SeqFile", "B. SeqReader", "C. Bio.FastaIO", "D.Bio.SeqIO"],
        "answer":"D"
    },
    {
        "question":" What is the output of gc_fraction(DNA) * 100?",
        "options":["A. GC count", "B. GC percentage", "C. DNA length", "D. RNA transcription"],
        "answer":"B"
    },
]


# Start Quiz
score = 0
```

```
print("Welcome to the Subject-Based MCQ Quiz!\n")


for idx, q in enumerate(questions):
    print(f"Q{idx + 1}: {q['question']}")
    for i, option in enumerate(q['options']):
        print(f"  {i + 1}. {option}")

    # Get user input and validate
    while True:
        try:
            choice = int(input("Enter your choice (1-4): ")) - 1
            if choice in range(4):
                break
            else:
                print("Please enter a valid option (1-4).")
        except ValueError:
            print("Please enter a number.")

    # Convert correct answer (e.g., "A") to index
    correct_index = ord(q["answer"]) - ord('A')
    if choice == correct_index:
```

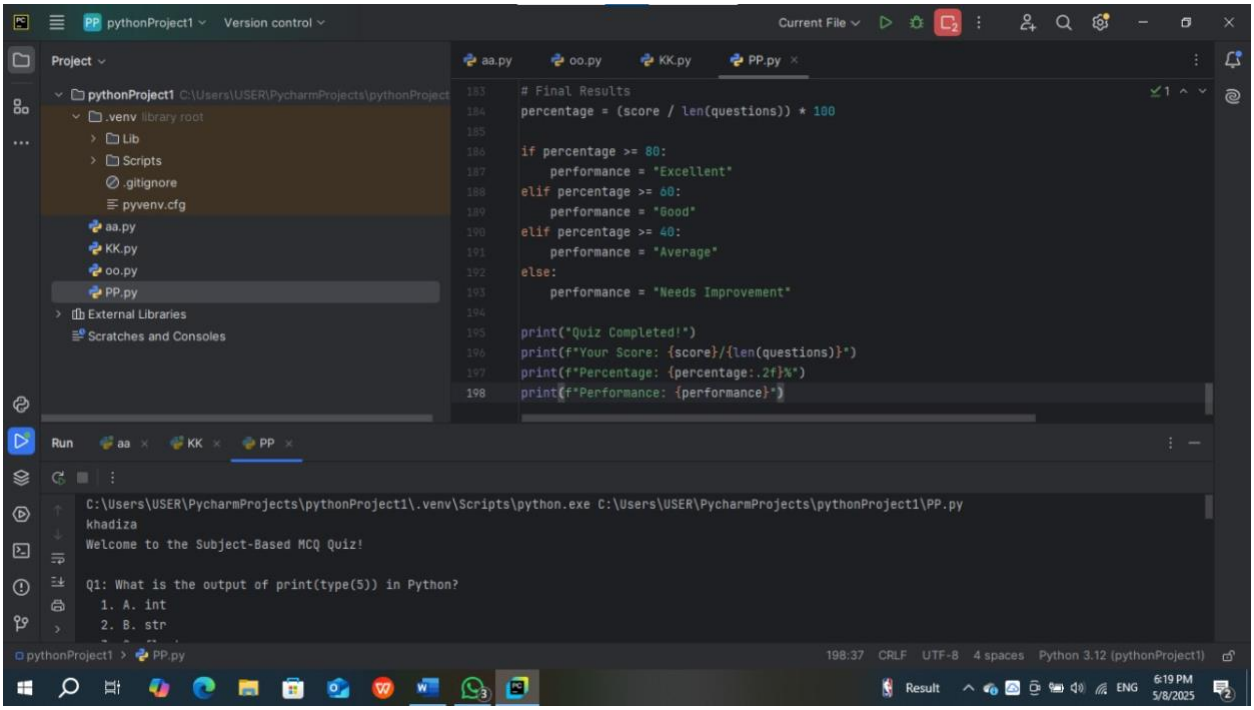
```
        score += 1
    print()

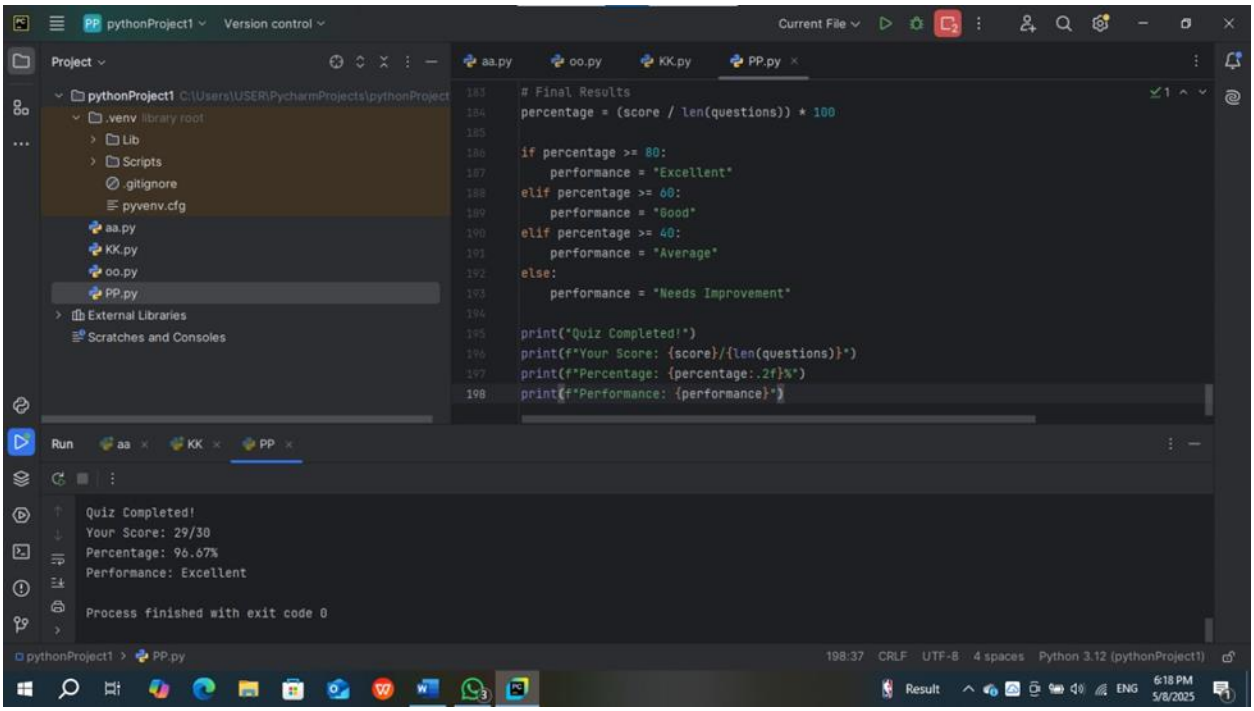
# Final Results
percentage = (score / len(questions)) * 100

if percentage >= 80:
    performance = "Excellent"
elif percentage >= 60:
    performance = "Good"
elif percentage >= 40:
    performance = "Average"
else:
    performance = "Needs Improvement"

print("Quiz Completed!")
print(f"Your Score: {score}/{len(questions)}")
print(f"Percentage: {percentage:.2f}%")
print(f"Performance: {performance}")
```

Output:


pythonProject1
Version control
Current File
Project
aa.py
oo.py
KK.py
PP.py
# Final Results
percentage = (score / len(questions)) * 100
if percentage >= 80:
performance = "Excellent"
elif percentage >= 60:
performance = "Good"
elif percentage >= 40:
performance = "Average"
else:
performance = "Needs Improvement"
print("Quiz Completed!")
print(f"Your Score: {score}/{len(questions)}")
print(f"Percentage: {percentage:.2f}%")
print(f"Performance: {performance}")
Run
aa
KK
PP
C:\Users\USER\PycharmProjects\pythonProject1\.venv\Scripts\python.exe C:\Users\USER\PycharmProjects\pythonProject1\PP.py
khadiza
Welcome to the Subject-Based MCQ Quiz!
Q1: What is the output of print(type(5)) in Python?
1. A. int
2. B. str
pythonProject1
.venv
Lib
Scripts
.gitignore
pyvenv.cfg
External Libraries
Scratches and Consoles
198:37
CRLF
UTF-8
4 spaces
Python 3.12 (pythonProject1)
Result
ENG
6:19 PM
5/8/2025


pythonProject1
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Current File
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aa.py
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elif percentage >= 40:
performance = "Average"
else:
performance = "Needs Improvement"
print("Quiz Completed!")
print(f"Your Score: {score}/{len(questions)}")
print(f"Percentage: {percentage:.2f}%")
print(f"Performance: {performance}")
Run
aa
KK
PP
Quiz Completed!
Your Score: 29/30
Percentage: 96.67%
Performance: Excellent
Process finished with exit code 0
pythonProject1
.venv
Lib
Scripts
.gitignore
pyvenv.cfg
External Libraries
Scratches and Consoles
198:37
CRLF
UTF-8
4 spaces
Python 3.12 (pythonProject1)
Result
ENG
6:18 PM
5/8/2025