TEAM LEAD VERSION (BackEnd-1)

Meeting Agenda

▶ Icebreaking

▶ Questions

▶ Interview Questions

▶ Coding Challenge

▶ Video of the week

▶ Retro meeting

▶ Case study / project

Teamwork Schedule

Ice-breaking   5m

- Personal Questions (Stay at home & Corona, Study Environment, Kids etc.)
- Any challenges (Classes, Coding, studying, etc.)
- Ask how they're studying, give personal advice.
- Remind that practice makes perfect.

Team work   5m

- Ask what exactly each student does for the team, if they know each other, if they care for each other, if they follow and talk with each other etc.

Ask Questions   15m

1. In which programming language is Django written??

A. C++
B. Java
C. Python
D. Ruby

Answer: C

2. Which of the following are valid ways to specify the string literal foo'bar in Python?

A. """foo'bar"""
B. 'foo\'bar'
C. 'foo'bar'
D. 'foo''bar'
E. "foo'bar"

Answer: A, B, E

3. What is the output of the following code snippet in Python?

```python
if 'bar' in {'foo': 1, 'bar': 2, 'baz': 3}:
    print(1)
    print(2)
    if 'a' in 'qux':
        print(3)
print(4)
```

A.

```
1
2
4
```

B.

```
1
2
3
4
```

C. It doesn't generate any output.

D. 4

Answer: A

4. What is the expression involving x that accesses the value 30 in Python?

```python
x = [
    'a',
    'b',
    {
        'foo': 1,
        'bar':
        {
            'x' : 10,
            'y' : 20,
            'z' : 30
        },
        'baz': 3
    },
    'c',
    'd'
]
```

*Answer:

```
x[2]["bar"]["z"]
```

5. Consider again this nested list above, is the following statement True or False?

```
'z' in x[2]
```

A. True
B. False

Answer: False

6. What is the correct way to instantiate this Dog class in Python?

```python
class Dog:
    def __init__(self, name, age):
        self.name = name
        self.age = age
```

A. Dog()
B. Dog.create("Rufus", 3)
C. Dog.__init__("Rufus", 3)
D. Dog("Rufus", 3)

Answer: D

7. In Python, what is a function within a class definition?

A. Operation
B. Method
C. Callable
D. Class function

Answer: B

8. What's the output of the following code snippet?

```python
class Dog:
    def walk(self):
        return "*walking*"

    def speak(self):
        return "Woof!"

class JackRussellTerrier(Dog):
    def talk(self):
        return super().speak()

bobo = JackRussellTerrier()

bobo.talk()
```

A. Woof!

B. *walking*

C. CanineError: Tail curvature exceeded

Answer: A

9. Which SQL keyword is used to sort the result-set?

A. SORT

B. ORDER

C. SORT BY

D. ORDER BY

Answer: D

10. With SQL, how do you select all the records from a table named "Persons" where the value of the column "FirstName" is "Peter"?

A. SELECT * FROM Persons WHERE FirstName='Peter'

B. SELECT * FROM Persons WHERE FirstName<>'Peter'

C. SELECT [all] FROM Persons WHERE FirstName='Peter'

D. SELECT [all] FROM Persons WHERE FirstName LIKE 'Peter'

Answer: A

Interview Questions   15m

1. What is PEP 8 and why is it important in Python?

Answer:

PEP stands for Python Enhancement Proposal. A PEP is an official design document providing information to the Python Community, or describing a new feature for Python or its processes. PEP 8 is especially important since it documents the style guidelines for Python Code. Apparently contributing in the Python open-source community requires you to follow these style guidelines sincerely and strictly.

2. What are decorators in Python?

Answer:

Decorators in Python are essentially functions that add functionality to an existing function in Python without changing the structure of the function itself. They are represented by the @decorator_name in Python and are called in bottom-up fashion.

The beauty of the decorators lies in the fact that besides adding functionality to the output of the method, they can even accept arguments for functions and can further modify those arguments before passing it to the function itself. The inner nested function, i.e. 'wrapper' function, plays a significant role here. It is implemented to enforce encapsulation and thus, keep itself hidden from the global scope.

3. What is 'pass' statement in Python?

Answer:

The pass keyword represents a null operation in Python. It is generally used for the purpose of filling up empty blocks of code which may execute during runtime but has yet to be written. Without the pass statement in the following code, we may run into some errors during code execution.

4. What is a Foreign Key in SQL?

Answer:

A Foreign Key comprises of single or collection of fields in a table that essentially refer to the Primary Key in another table. Foreign key constraint ensures referential integrity in the relation between two tables.

The table with the foreign key constraint is labelled as the child table, and the table containing the candidate key is labelled as the referenced or parent table.

5. When you've disagreed with coworkers, how did you handle it??

Answer:

This is another question about communication, but in this case your goal is to describe a situation where a compromise was found. After all, people working in teams always bring different points of view to the table and the success of teams depends on employees being able to talk out these differences and reach compromises. Think about your own experiences working in teams and the times you've resolved any potential conflict.

Keep in mind that the compromise itself doesn't need to have come about through formal or public channels. If you and the coworker discussed the situation and arrived at a solution over lunch, that might be proof of the tact and diplomacy you bring to solving problems.

Coding Challenge   20m

- Pyhon Coding Challenge

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Coffee Break   10m

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Video of the Week   10m

- What You Need to Know to be a Backend Developer

Retro Meeting on a personal and team level   5m

Ask the questions below:

- What went well?
- What went wrong?
- What is the improvement areas?

Case study/Project   15m

First App - Welcome to BackEnd

- Create your first Django app!

Closing   5m

-Next week's plan

-QA Session