COMP 110

CL02 - Memory Diagrams + Conditionals Practice

Conditionals Practice

```
 1  x: int =
 2  y: int = 9
 3
 4  if x % 2 == 0:
 5      print("A")
 6      if x == 2:
 7          print("B")
 8  else:
 9      if x < y:
10          print("C")
11  if x ** 2 == y:
12      print("D")
```

Choose a value of x (if possible) to give the following outputs:
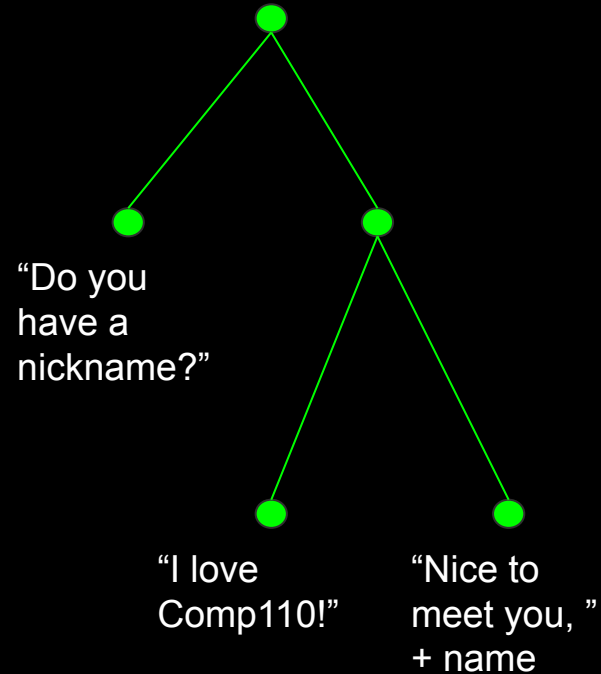
1.
```
A
B
```

2.
```
A
```

3.
```
C
```

4.
```
D
```

5.
```
C
D
```

6.
```
A
D
```

```python
name: str = input("Name? ")

if len(name) > 6:
    print("Do you have a nickname?")
else:
    if name == "Alyssa":
        print("I love Comp110!")
    else:
        print("Nice to meet you, " + name)
```


"Do you have a nickname?"

"I love Comp110!"

"Nice to meet you, " + name

```python
name: str = input("Name? ")

if len(name) > 6:
    print("Do you have a nickname?")
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```
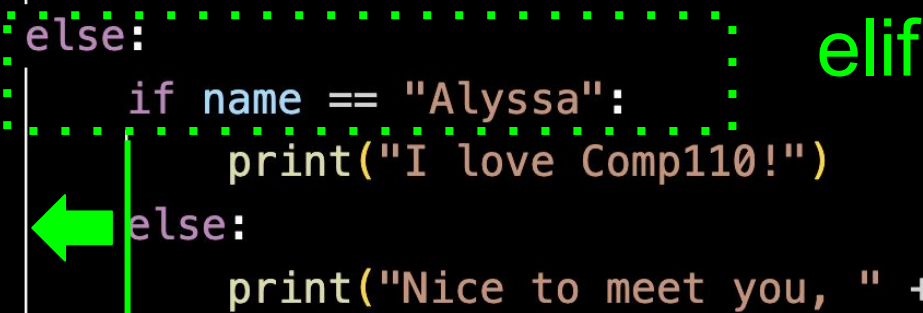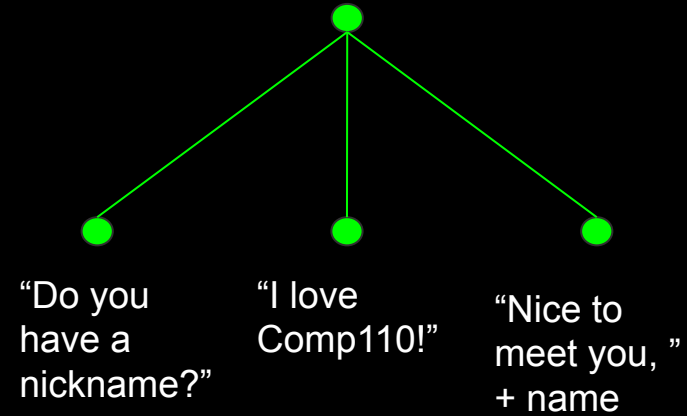
elif

```
1  name: str = input("Name? ")
2
3  if len(name) > 6:
4  │    print("Do you have a nickname?")
5  else:
6  │    if name == "Alyssa":
7  │        print("I love Comp110!")
8  ← else:
9  │        print("Nice to meet you, " + name)
```

elif

```
1  name: str = input("Name? ")
2
3  if len(name) > 6:
4  |    print("Do you have a nickname?")
5  else:
6  |    if name == "Alyssa":
7  |        print("I love Comp110!")
8  ← else:
9  |        print("Nice to meet you, " + name)
```

elif

"Do you have a nickname?"

"I love Comp110!"

"Nice to meet you, " + name

```python
name: str = input("Name? ")

if len(name) > 6:
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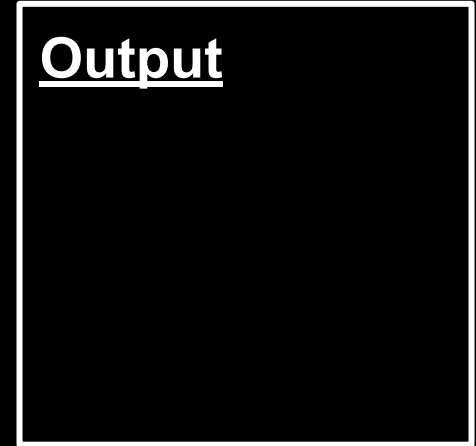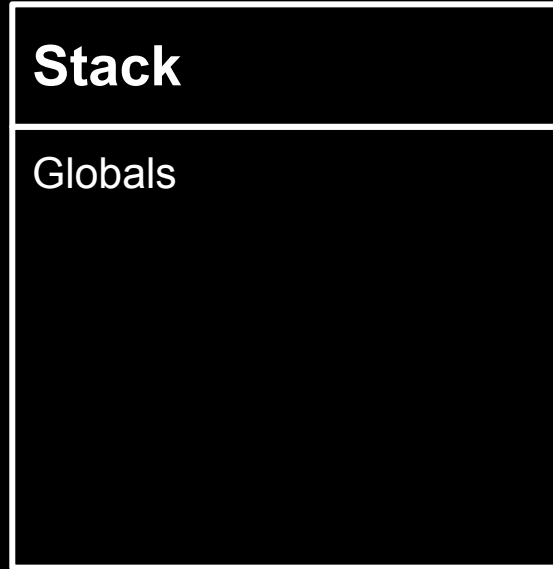
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name: str = input("Name? ")

if len(name) > 6:
    print("Do you have a nickname?")
elif name == "Alyssa":
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else:
    print("Nice to meet you, " + name)
```

Memory Diagram

```
1  a: int = 2
2  b: int = 6
3  if a > b:
4  |     print(a-b)
5  elif b < 10:
6  |     print(b/a)
7  else:
8  |     print(a+b)
9  print(b)
```

Stack

Globals

Output

Memory Diagram

```
1  x: str = "Hello"
2  y: int = len(x)
3  if y % 4 == 1:
4  |    y *= 2
5  y -= 6
6  print(y)
7  print(x[y])
```

Stack

Globals

Output