

COMP  
110

CL08 - elif, Local Variables,  
and conditionals practice

# Variables

## Declaration of a variable

`<name>: <type> = <value>`

`students: int = 300`

`message: str = "Howdy!"`

## Update a variable

`<name> = <new value>`

`students = 325`

`message = "See ya!"`

# Diagram

```
1 def number_info(num: int) -> None:
2     if num < 10:
3         print("Small number.")
4     else:
5         if num % 2 == 0:
6             print("Even number.")
7         else:
8             print("Odd number.")
9
10
11 number_info(num=11)
12 print(number_info(num=4))
```

# What if...

```
1 def number_info(num: int) -> None:
2     if num < 10:
3         print("Small number.")
4     else:
5         if num % 2 == 0:
6             print("Even number.")
7         else:
8             print("Odd number.")
```

# What if...

```
1 def number_info(num: int) -> None:
2     if num < 10:
3         print("Small number.")
4     else:
5         if num % 2 == 0:
6             print("Even number.")
7         else:
8             print("Odd number.")
```

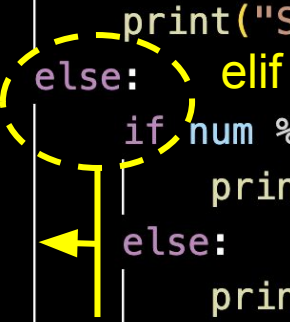
# What if...

```
1 def number_info(num: int) -> None:
2     if num < 10:
3         print("Small number.")
4     else:
5         if num % 2 == 0:
6             print("Even number.")
7         else:
8             print("Odd number.")
```

```
1 def number_info(num: int) -> None:
2     if num < 10:
3         print("Small number.")
4     elif num % 2 == 0:
5         print("Even number.")
6     else:
7         print("Odd number.")
```

# What if...

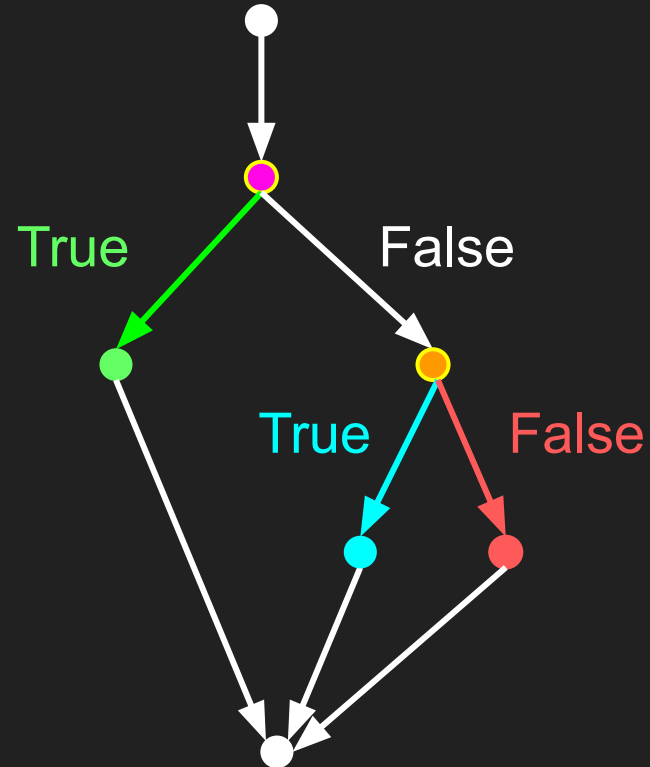
```
1 def number_info(num: int) -> None:
2     if num < 10:
3         print("Small number.")
4     else: elif
5         if num % 2 == 0:
6             print("Even number.")
7         else:
8             print("Odd number.")
```



```
1 def number_info(num: int) -> None:
2     if num < 10:
3         print("Small number.")
4     elif num % 2 == 0:
5         print("Even number.")
6     else:
7         print("Odd number.")
```

# Previous Control Flow

```
if <condition>:  
    <do something>  
else:  
    if <other condition>:  
        <do something else>  
    else:  
        <do third thing>  
<rest of program>
```





# New Control Flow

if <condition>:

<do something>

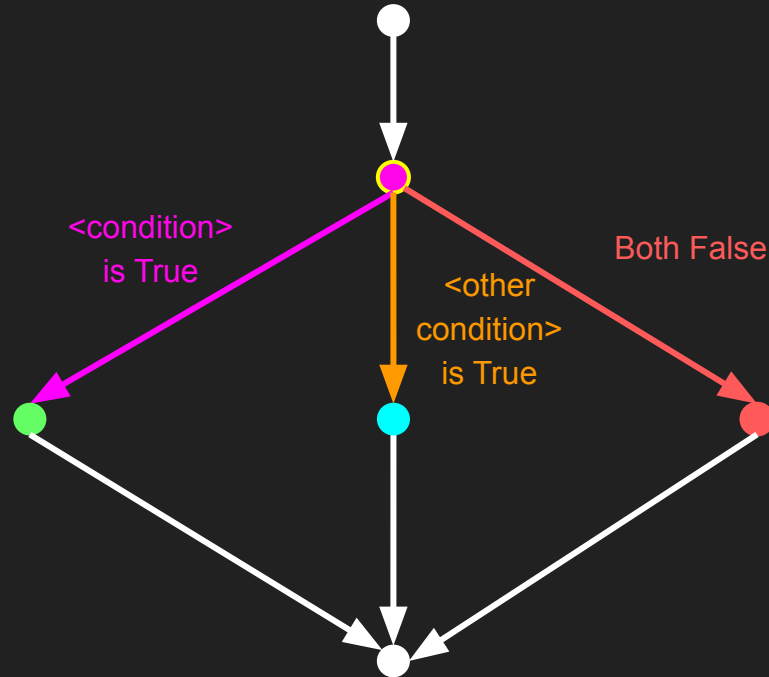
elif <other condition>:

<do something else>

else:

<do third thing>

<rest of program>



# Practice

- Write a function called `get_weather_report` that takes no inputs and returns a `str`
- It should use the `input` function to ask the user "What is the weather?" and save that as the local variable `weather`
- If `weather` is "rainy" or "cold", it should print "Bring a jacket!"
- If `weather` is "hot", it should print "Keep cool out there!"
- Otherwise, it should print "I don't recognize this weather."
- `return` the `weather` variable

```
1 def get_weather_report() -> str:
2     """Prompts user for the weather, prints recommendation
3     based on user's input, and returns user's input"""
4     weather: str = input("What is the weather?")
5     if (weather == "rainy") or (weather == "cold"):
6         print("Bring a jacket!")
7     elif weather == "hot":
8         print("Keep cool out there!")
9     else:
10        print("I don't recognize this weather.")
11    return weather
12
13
14 get_weather_report()
15
```