

Introduction to Python Programming

3 – Selection using IF, ELIF and ELSE.

Learning Goals/Objectives

Be able to read, comprehend, trace, adapt and create Python code that:

- uses Boolean conditions
- uses selection using **IF**, **ELIF** and **ELSE** for more than two situations

Selection - Three Or More Outcomes

```
if weather == "rain":
```

```
    print("Take your umbrella")
```

```
else:
```

```
    print("No special advice for you")
```

If the condition is **false**
then skip to the **else** and do that instead.

What if we want to handle more weather conditions?

elif

Add elif with a condition **between if and else**.

You can add as many elifs as you need

Selection with 3 or more outcomes - **The algorithm**

1. Start with an **if**
→ set the first condition
2. Add as many **elifs** as you need
→ give each one a new condition
3. Finish with an **else**
→ no condition needed

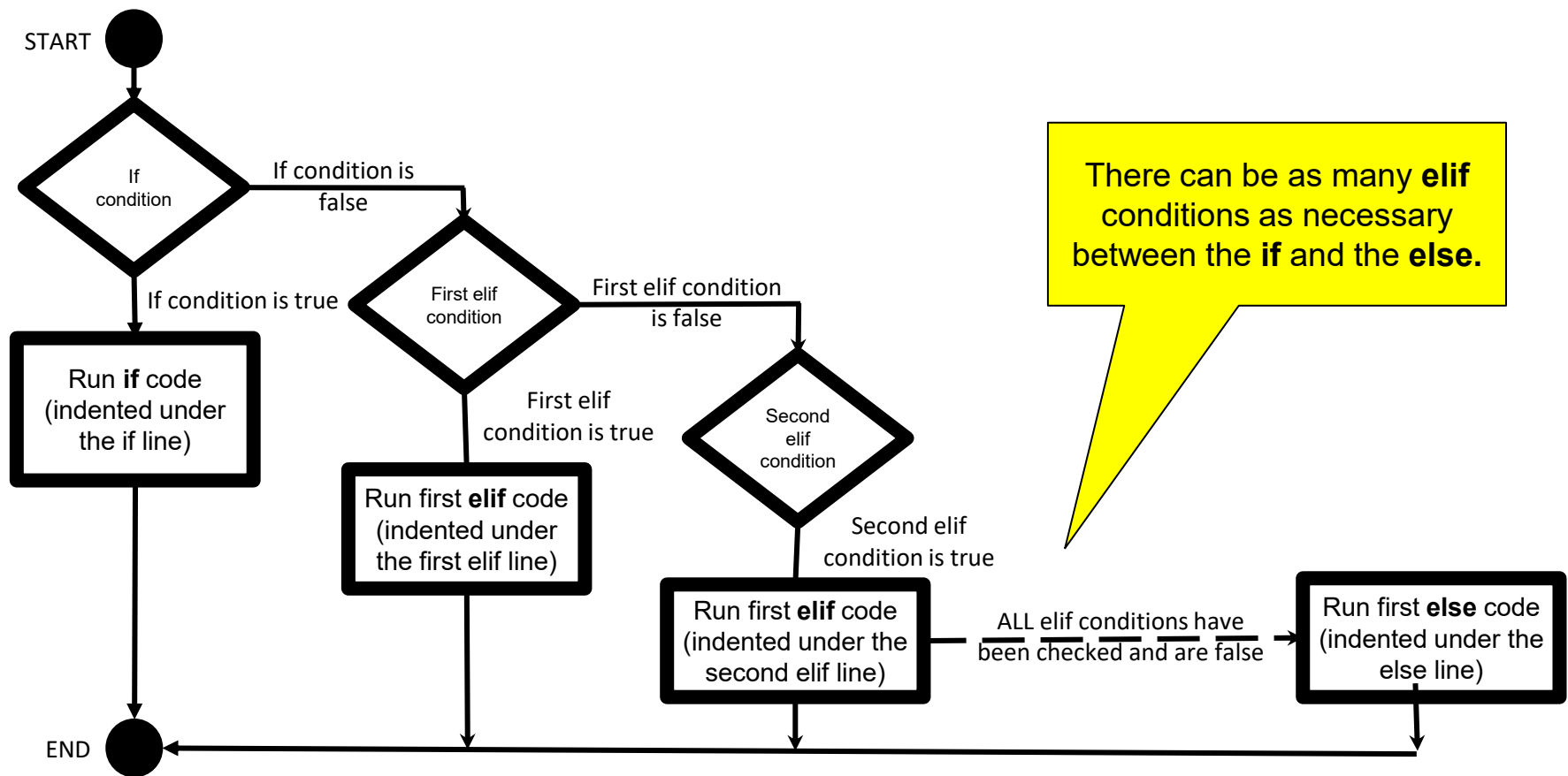
Selection - Three Or More Outcomes

```
if weather == "rain":  
    print("Take your umbrella")  
elif weather == "snow":  
    print("Take your scarf")  
else:  
    print("No special advice for you")
```

Selection - Three Or More Outcomes

```
if weather == "rain":  
    print("Take your umbrella")  
elif weather == "snow":  
    print("Take your scarf")  
elif weather == "sunny":  
    print("Take your sunglasses")  
else:  
    print("No special advice for you")
```

Selection With Three Or More Outcomes - Flowchart



Selection With Three or More Outcomes - Coding Tips

1. Start with
if.

2. Write a condition for your first
outcome.

3. DON'T FORGET THE COLON
after the condition.

4. Code that should run if the
condition is **true**.
DON'T FORGET TO INDENT (use
the **tab** key)

```
if num1 > num2:  
    print (str(num1) + " is bigger.")
```

```
elif num1 < num2:
```

5. Add an elif.
Write a condition to check for your second outcome.

```
    print (str(num2) + " is bigger")
```

```
else:
```

7. Add an else for your final outcome.
No condition needed.

```
    print("The numbers are the same")
```

6. Keep adding elifs with conditions
until there is only one condition left.

Selection With Three Or More Outcomes

Task - Which Room?

- Write a program that asks the user for their name and which subject they are studying.
- The program should output a message telling the student by name which room to go to for that class (make up the room numbers if you need to). You should include at least 3 subjects and have a message such as 'I don't know which room that class is in' for any you don't include.

Example: An input of 'Ben' and 'Computing' might get an output of 'Hi Ben, go to room 401 for Computing'

Extra Challenge - The INSULT-O-MATIC 5000!!!!

Write a program that:

- Asks for the user's name.
- Asks the user to input a number between 1 and 5.
- Outputs a personalised insult (that includes the user's name) depending on which number they picked.

Keep your insults clean!