AI Python for Beginners

Module 2: Automating Tasks with Python

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Lesson 1:
Completing a Task List with AI

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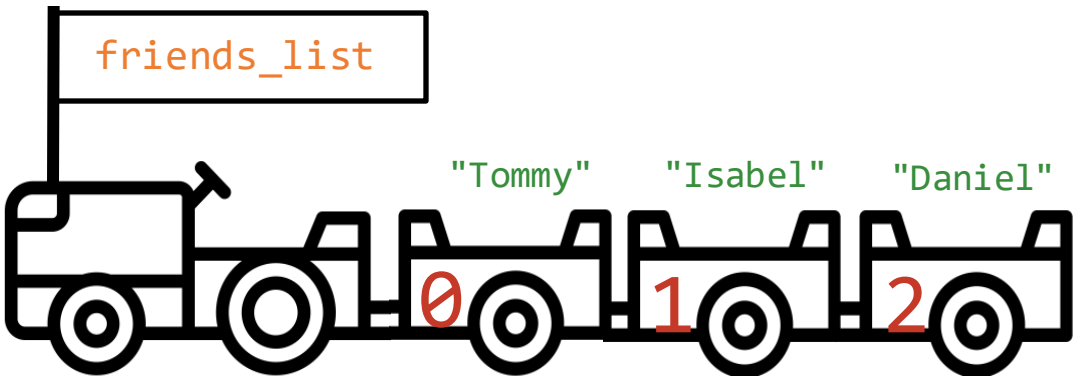
Lists

Lists allow you to store multiple pieces of data.

```
friends_list = ["Tommy", "Isabel", "Daniel"]
```



Python starts counting at zero (`0`)

Lists allow you to:

- Add new elements
- Delete specific elements
- Retrieve elements
- Edit elements

Lists

Lists allow you to store multiple pieces of data.

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Lesson 2: Repeating Tasks with for Loops

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Repeating actions for multiple elements

For loops let you repeat a set of commands for each element in a list

```
for task in list_of_tasks:

    print_llm_response(task)
```

Repeating actions for multiple elements

For loops let you repeat a set of commands for each element in a list

```
for task in list_of_tasks:

    print_llm_response(task)
```

In plain English:

For each task in the list of tasks, **print the llm response to the** task

Repeating actions for multiple elements

For loops let you avoid repetitive code

```
for task in list_of_tasks:

    print_llm_response(task)
```

Equivalent code

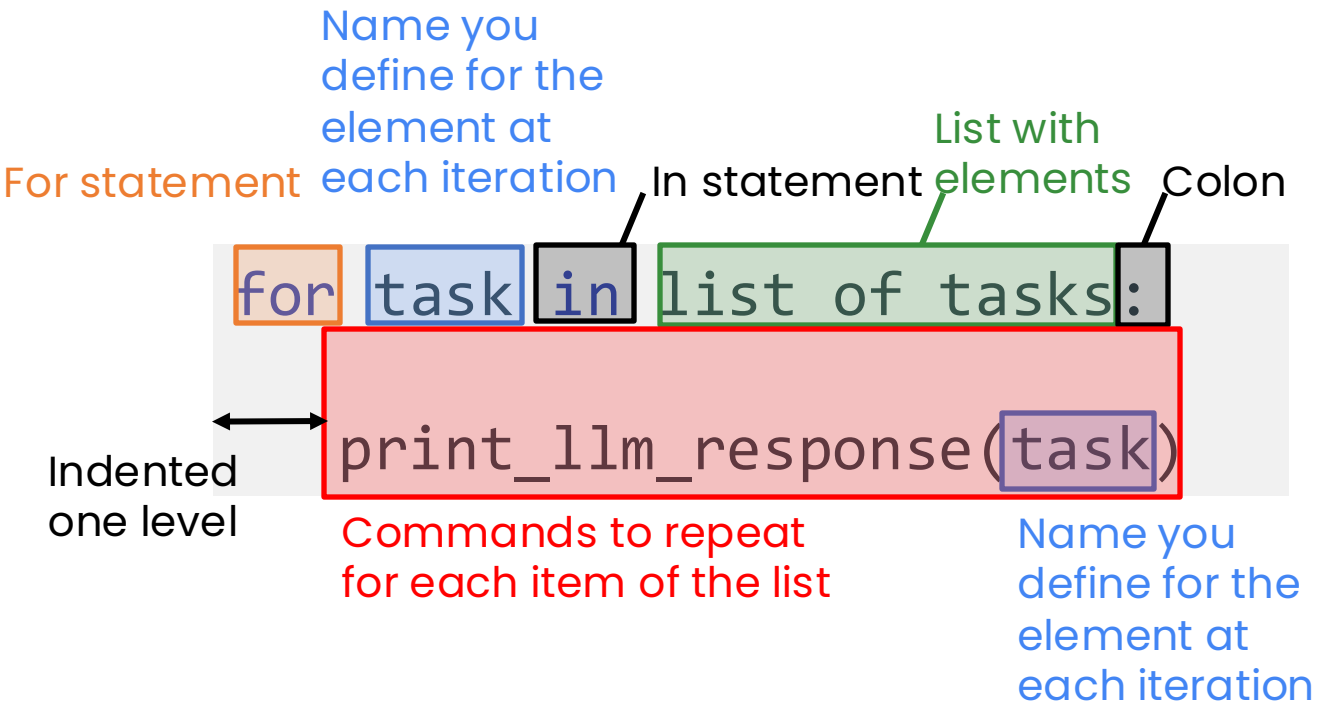
```
print_llm_response(list_of_tasks[0])
print_llm_response(list_of_tasks[1])
print_llm_response(list_of_tasks[2])
```

Repeating actions for multiple elements

```
for task in list_of_tasks:

    print_llm_response(task)
```

Repeating actions for multiple elements



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Lesson 3: Prioritizing Tasks with Dictionaries and AI

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Dictionaries in Python

As a hardcover dictionary has words/concepts and definitions,

Aardvark	A nocturnal mammal with long ears. Aardvarks are native to Africa.
Apple	The round fruit of a tree of the rose family, which typically has thin red or green skin and crisp flesh.

Dictionaries in Python

As a hardcover dictionary has words/concepts and definitions, a dictionary in Python has keys and values.

Aardvark

A nocturnal mammal with long ears. Aardvarks are native to Africa.

Apple

The round fruit of a tree of the rose family, which typically has thin red or green skin and crisp flesh.

```
ice_cream_flavors = {
    "Mint Chocolate Chip": "Refreshing mint ice cream studded
                           with decadent chocolate chips.",
    "Cookie Dough": "Vanilla ice cream loaded with chunks of
                    chocolate chip cookie dough.",
}
```

How to define a dictionary

Key : value pairs are separated by commas

```
ice_cream_flavors = {
    'Mint Chocolate Chip': "Refreshing mint ice cream studded
     with decadent chocolate chips.",
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     chocolate chip cookie dough.",
}
```

How to define a dictionary

Key : value pairs are separated by commas

Dict. name

Assignment

Curly braces

```
ice_cream_flavors = {
    'Mint Chocolate Chip": "Refreshing mint ice cream studded
                           with decadent chocolate chips.",
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}
```

Curly braces

Colon between keys and values

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Lesson 4: Customizing Recipes with Lists, Dictionaries and AI

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Lesson 5: Comparing Data in Python

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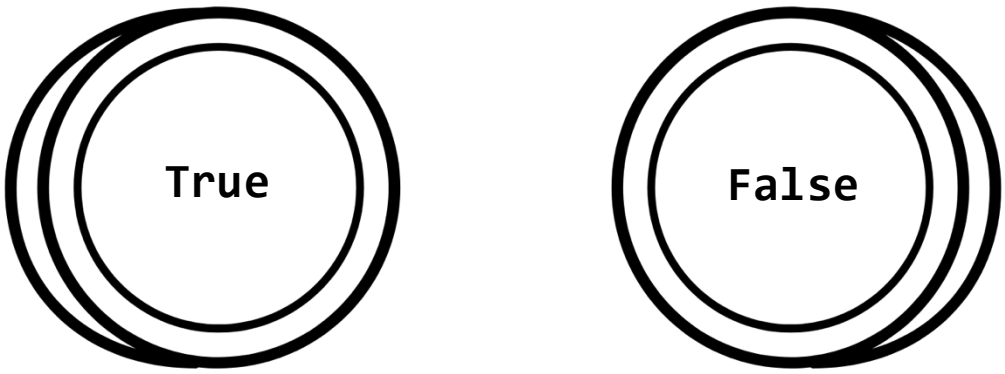
Boolean: True or False

Booleans are a data type that can only take two values, like the outcomes from a coin toss!



You can think of booleans as answering yes (True) or no (False) questions

```
is_tommy_my_friend = True
```

Making comparisons

In python you can compare values, the result from comparing two values is a Boolean

Python	English
>	Greater than
<	Less than
>=	Greater than or equal
<=	Less or equal
==	Equal

Is Isabel's age greater than or equal to Tommy's?

```
age_isabel >= age_tommy
```

Logical operators

Operations with booleans use logic

Python	Returns True if
and	Both are True
or	At least one is True
not	Statement is False

With two booleans using `and`:

and	True	False
True	True	False
False	False	False

```
is_tommy_my_friend = True
is_isabel_my_friend = True
print(is_isabel_my_friend and is_tommy_my_friend)
```

```
True
```

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Lesson 6: Helping AI Make Decisions

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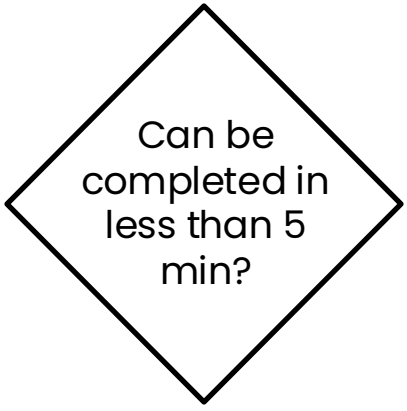
Control what path to follow

Control statements let you define ways to react to conditions.

if statement:

```
if task["time_to_complete"] <= 5:
    print_llm_response(task["task"])
```



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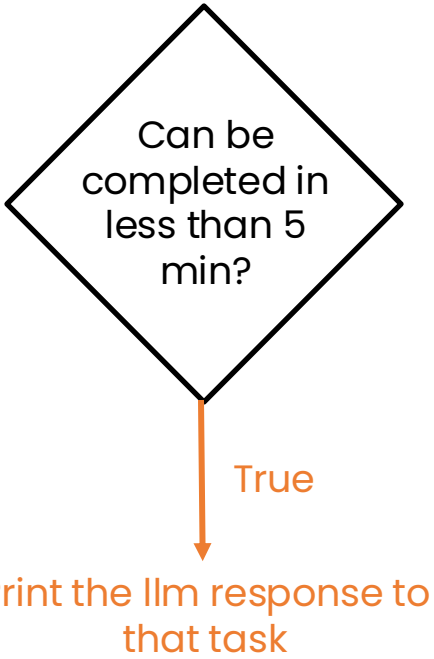

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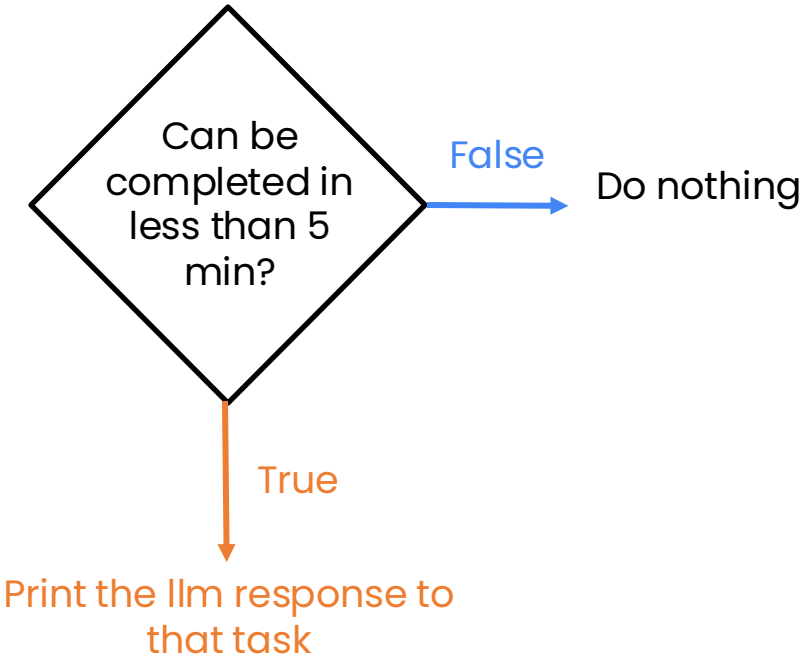
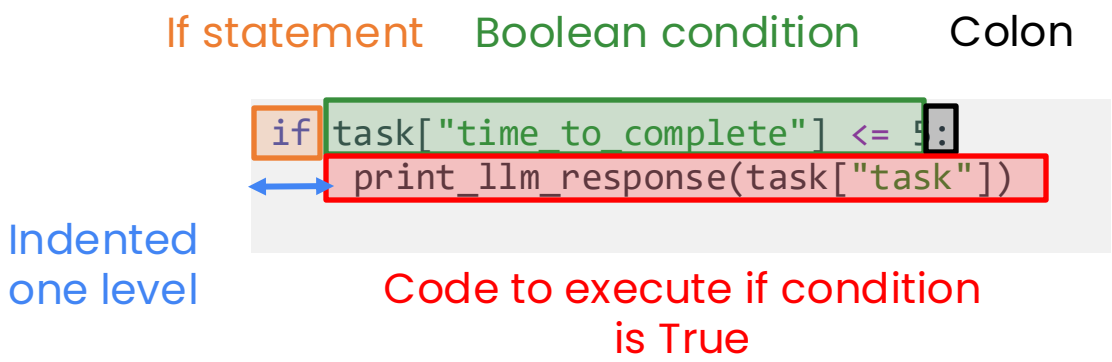


If statement



More conditional blocks

```
if task["time_to_complete"] <= 5:
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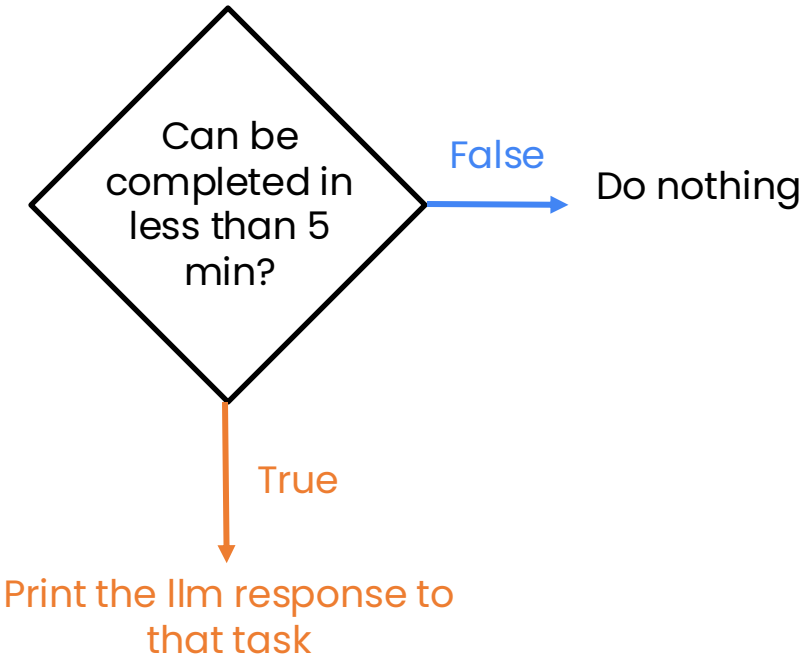

More conditional blocks

```
if task["time_to_complete"] <= 5:
    print_llm_response(task["task"])
else:
    print("To complete tomorrow or after")
```