V2_using_booleans

August 12, 2025

1 Activity: Using Booleans

1.1 Introduction

In this activ|ity, you will use booleans to complete the following questions. This activity includes: - Logical operators - Boolean expressions - Membership operators

Question 1 Use conditional operators to check if the variable `age` is greater than or equal to 18 and less than or equal to 25 then assign that value to a variable called `is_age_valid`.

[ ]:
```
age = 20
```

[5]:
```
age = 20
is_age_valid = age >= 18 and age <= 25
print(is_age_valid)
```

```
True
```

[6]:
```
# Question 1 Grading Checks

assert isinstance(is_age_valid, bool), "Make sure you are assigning a boolean␣
↪value to is_age_valid"
```

Question 2 Check if the variable `name` is in the list `names`. Assign the result to a variable called `is_name_valid`.

[ ]:
```
name = "John"
names = ["John", "Jane", "Jack"]
```

[7]:
```
name = "John"
names = ["John", "Jane", "Jack"]

is_name_valid = name in names
print(is_name_valid)
```

```
True
```

[9]:
```
# Question 2 Grading Checks

assert isinstance(is_name_valid, bool), "Make sure you are assigning a boolean␣
↪value to is_name_valid"
```

Question 3 Write a boolean expression that checks if the variable `whole_num` is not equal to `float_num`. Assign the result to a variable called `is_not_equal`.

[11]:
```
whole_num = 5
float_num = 5.0
```

[8]:
```
whole_num = 5
float_num = 5.0

is_not_equal = whole_num != float_num

print(is_not_equal)
```

```
False
```

[10]:
```
# Question 3 Grading Checks

assert isinstance(is_not_equal, bool), "Make sure you are assigning a boolean␣
↪value to is_not_equal"
```