Control Statement in Python

October 21, 2024

[8]:
```
# Exercise 1

# MonthNames.py

month_number = int(input("Enter the month (1-12): "))

if 1 <= month_number <= 12:
    months = ["January", "February", "March", "April", "May", "June", "July",␣
 ↪"August", "September", "October", "November", "December"]
    print(f"Month {month_number} is {months[month_number - 1]}")
else:
    print("Invalid month number. Please enter a value between 1 and 12.")
```

```
Enter the month (1-12):  3
```

```
Month 3 is March
```

[3]:
```
# Exercise 2

age = int(input("Enter your age: "))
ticket_price = 6

if age < 16:
    ticket_price /= 2  # half price
elif age >= 60:
    ticket_price /= 3  # one-third price

print(f"Your ticket costs Âč{ticket_price:.2f}")
```

```
Enter your age:  28
```

```
Your ticket costs Âč6.00
```

[5]:
```
# Exercise 3

# BodyMassIndex.py

weight = float(input("Enter your weight in kg: "))
height = float(input("Enter your height in m: "))
```

```
bmi = weight / (height ** 2)

print(f"Your BMI is: {bmi:.2f}")

if bmi < 18.5:
    print("You are in the 'Underweight' range.")
elif 18.5 <= bmi <= 24.9:
    print("You are in the 'Normal' range.")
elif 25 <= bmi <= 29.9:
    print("You are in the 'Overweight' range.")
else:
    print("You are in the 'Obese' range.")
```

```
Enter your weight in kg:  75
Enter your height in m:  1.70
```

```
Your BMI is: 25.95
You are in the 'Overweight' range.
```

[10]:
```
# Exercise 4

num1 = float(input("Enter first number: "))
num2 = float(input("Enter second number: "))
num3 = float(input("Enter third number: "))

greatest = max(num1, num2, num3)

print(f"The greatest number is: {greatest}")
```

```
Enter first number:  3
Enter second number:  15
Enter third number:  1
```

```
The greatest number is: 15.0
```

[12]:
```
# Exercise 5

number = int(input("Enter a number: "))
factorial = 1

for i in range(1, number + 1):
    factorial *= i

print(f"The factorial of {number} is {factorial}")
```

```
Enter a number:  9
```

```
The factorial of 9 is 362880
```

[14]:
```python
# Exercise 6

number = int(input("Enter a number to reverse: "))
reversed_number = 0

while number > 0:
    digit = number % 10
    reversed_number = reversed_number * 10 + digit
    number //= 10

print(f"Reversed number: {reversed_number}")
```

```
Enter a number to reverse:  12

Reversed number: 21
```

[16]:
```python
# Exercise 7

number = int(input("Enter a number: "))
limit = int(input("Enter the limit: "))

for i in range(1, limit + 1):
    print(f"{number} x {i} = {number * i}")
```

```
Enter a number:  8
Enter the limit:  2

8 x 1 = 8
8 x 2 = 16
```

[18]:
```python
# Exercise 8

while True:
    value = input(":")
    if value.lower() == 'done':
        print("Done")
        break
    print(value)
```

```
: hello there

hello there

: finished

finished

: done

Done
```

[20]:
```python
# Exercise 9

for i in range(1, 11):
    if i % 3 == 0 and i % 5 == 0:
        print("FizzBuzz")
    elif i % 3 == 0:
        print("Fizz")
    elif i % 5 == 0:
        print("Buzz")
    else:
        print(i)
```

```
1
2
Fizz
4
Buzz
Fizz
7
8
Fizz
Buzz
```

[22]:
```python
# Exercise 10

for i in range(5, 0, -1):
    for j in range(i, 0, -1):
        print(j, end=" ")
    print()
```

```
5 4 3 2 1
4 3 2 1
3 2 1
2 1
1
```

[ ]:
```python

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