Modules and RegEx

October 21, 2024

[1]:
```python
# Exercise 1

import math

def calculate_square_root(number):
    return math.sqrt(number)

num = 16
print(f"The square root of {num} is {calculate_square_root(num)}")
```

```
The square root of 16 is 4.0
```

[3]:
```python
# Exercise 2

import random

def generate_random_number():
    return random.randint(1, 10)

print(f"Random number between 1 and 10: {generate_random_number()}")
```

```
Random number between 1 and 10: 10
```

[5]:
```python
# Exercise 3

import math

def calculate_factorial(number):
    return math.factorial(number)

num = 5
print(f"The factorial of {num} is {calculate_factorial(num)}")
```

```
The factorial of 5 is 120
```

[1]:
```python
# Exercise 4

import math
```

```
def calculate_rectangle_area(length, width):
    return length * width

# Example usage:
length = float(input("Enter length of rectangle: "))
width = float(input("Enter width of rectangle: "))
print(f"Area of rectangle: {calculate_rectangle_area(length, width)}")
```

```
Enter length of rectangle:  50
Enter width of rectangle:  40
```

```
Area of rectangle: 2000.0
```

[7]:
```
# Exercise 5

# Temperature in celsius degree
celsius = 47

# Converting the temperature to
# fehrenheit using the formula
fahrenheit = (celsius * 1.8) + 32

# printing the result
print('%.2f Celsius is equivalent to: %.2f Fahrenheit'
      % (celsius, fahrenheit))
```

```
47.00 Celsius is equivalent to: 116.60 Fahrenheit
```

[ ]:
```

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