In [1]:
```python
import numpy as np
import matplotlib.pyplot as plt
```
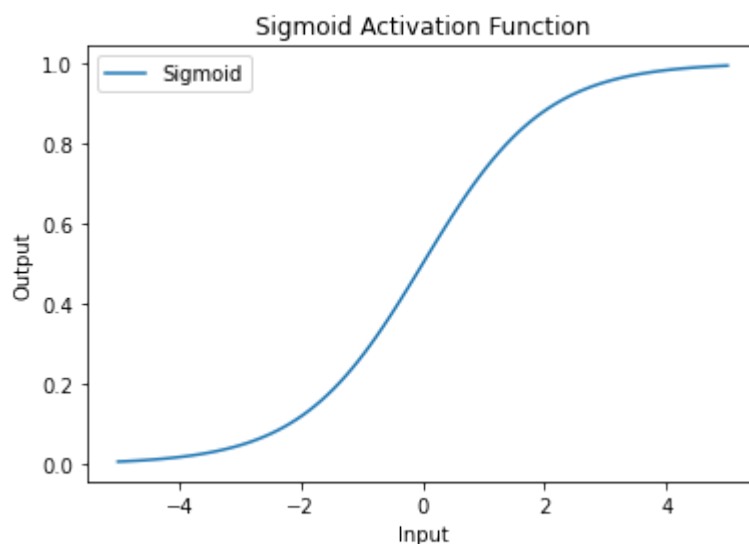
In [2]:
```python
# Define the input range
x = np.linspace(-5, 5, 100)
```

## SIGMOID ACTIVATION FUNCTION

In [3]:
```python
y_sigmoid =  1 / (1 + np.exp(-x))
```

In [4]:
```python
# Sigmoid plot
plt.figure()
plt.plot(x, y_sigmoid, label='Sigmoid')
plt.title('Sigmoid Activation Function')
plt.xlabel('Input')
plt.ylabel('Output')
plt.legend()
plt.show()
```



## RELU ACTIVATION FUNCTION

In [5]:
```python
y_relu = np.maximum(0, x)
```

In [6]:
```python
# ReLU plot
plt.figure()
plt.plot(x, y_relu, label='ReLU', color='orange')
plt.title('ReLU Activation Function')
plt.xlabel('Input')
plt.ylabel('Output')
plt.legend()
plt.show()
```
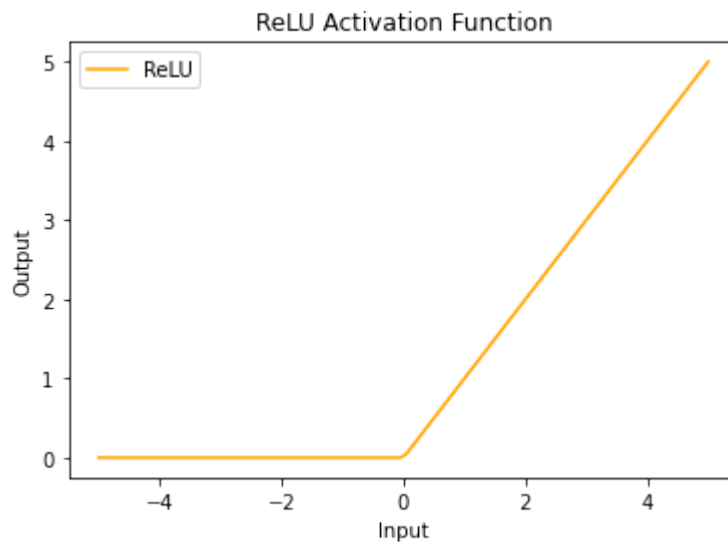


## TANH ACTIVATION FUNCTION

In [7]:
```python
y_tanh = np.tanh(x)
```

In [8]:
```python
# Tanh plot
plt.figure()
plt.plot(x, y_tanh, label='Tanh', color='green')
plt.title('Tanh Activation Function')
plt.xlabel('Input')
plt.ylabel('Output')
plt.legend()
plt.show()
```