

```
import random
import time

# Define the function to monitor temperature
def monitor_temperature(threshold_high, threshold_low):
    """
    Monitors the temperature, checks against defined thresholds,
    and provides alerts if necessary.
    """
    while True:
        # Simulate temperature reading (replace with actual sensor input in real-world applications)
        current_temperature = random.uniform(20.0, 40.0) # Simulating temperature between 20°C and 40°C
        print(f"Current Temperature: {current_temperature:.2f}°C")

        # Check if the temperature exceeds the high threshold
        if current_temperature > threshold_high:
            print("ALERT: Temperature is too high! Immediate action required.")

        # Check if the temperature is below the low threshold
        elif current_temperature < threshold_low:
            print("ALERT: Temperature is too low! Immediate action required.")

        # Optional: Provide a neutral message if within acceptable range
        else:
            print("Temperature is within acceptable range.")

        # Wait for 2 seconds before checking again (simulating continuous monitoring)
        time.sleep(2)

# Set the high and low temperature thresholds (in Celsius)
threshold_high = 35.0 # Threshold for high temperature (e.g., 35°C)
threshold_low = 25.0 # Threshold for low temperature (e.g., 25°C)

# Start monitoring the temperature
monitor_temperature(threshold_high, threshold_low)
```

↔ Current Temperature: 36.51°C
ALERT: Temperature is too high! Immediate action required.
Current Temperature: 35.50°C
ALERT: Temperature is too high! Immediate action required.
Current Temperature: 34.93°C
Temperature is within acceptable range.
Current Temperature: 35.82°C
ALERT: Temperature is too high! Immediate action required.
Current Temperature: 26.13°C
Temperature is within acceptable range.
Current Temperature: 23.14°C
ALERT: Temperature is too low! Immediate action required.
Current Temperature: 36.78°C
ALERT: Temperature is too high! Immediate action required.
Current Temperature: 28.79°C
Temperature is within acceptable range.
Current Temperature: 34.47°C
Temperature is within acceptable range.
Current Temperature: 31.68°C
Temperature is within acceptable range.
Current Temperature: 27.08°C
Temperature is within acceptable range.
Current Temperature: 22.21°C
ALERT: Temperature is too low! Immediate action required.
Current Temperature: 23.77°C
ALERT: Temperature is too low! Immediate action required.
Current Temperature: 36.77°C
ALERT: Temperature is too high! Immediate action required.
Current Temperature: 36.40°C
ALERT: Temperature is too high! Immediate action required.
Current Temperature: 31.26°C
Temperature is within acceptable range.
Current Temperature: 33.44°C
Temperature is within acceptable range.
Current Temperature: 31.48°C
Temperature is within acceptable range.
Current Temperature: 20.54°C
ALERT: Temperature is too low! Immediate action required.
Current Temperature: 26.81°C
Temperature is within acceptable range.
Current Temperature: 27.31°C
Temperature is within acceptable range.
Current Temperature: 26.89°C
Temperature is within acceptable range.
Current Temperature: 28.47°C
Temperature is within acceptable range.
Current Temperature: 36.94°C
ALERT: Temperature is too high! Immediate action required.
Current Temperature: 26.66°C
Temperature is within acceptable range.
Current Temperature: 35.61°C
ALERT: Temperature is too high! Immediate action required.
Current Temperature: 28.49°C
Temperature is within acceptable range.
Current Temperature: 32.57°C
Temperature is within acceptable range.
Current Temperature: 21.85°C
ALERT: Temperature is too low! Immediate action required.