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#Develop a function to monitor temperature and perform alert
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 appl
        current_temperature = random.uniform(20.0, 40.0)  # Simulating temperature between
        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: 29.21°C
Temperature is within acceptable range.
Current Temperature: 38.57°C
ALERT: Temperature is too high! Immediate action required.
Current Temperature: 31.44°C
Temperature is within acceptable range.
Current Temperature: 36.13°C
ALERT: Temperature is too high! Immediate action required.
Current Temperature: 25.41°C
Temperature is within acceptable range.
Current Temperature: 33.09°C
Temperature is within acceptable range.
Current Temperature: 24.74°C
ALERT: Temperature is too low! Immediate action required.
Current Temperature: 33.94°C
Temperature is within acceptable range.
Current Temperature: 25.04°C
Temperature is within acceptable range.
Current Temperature: 38.25°C
ALERT: Temperature is too high! Immediate action required.
---------------------------------------------------------------------------
KeyboardInterrupt                         Traceback (most recent call last)
<ipython-input-2-751342af4795> in <cell line: 0>()
     34
     35 # Start monitoring the temperature
---> 36 monitor_temperature(threshold_high, threshold_low)

<ipython-input-2-751342af4795> in monitor_temperature(threshold_high,
threshold_low)
     27
     28         # Wait for 2 seconds before checking again (simulating
continuous monitoring)
---> 29         time.sleep(2)
     30
     31 # Set the high and low temperature thresholds (in Celsius)

KeyboardInterrupt:
```