CASE STUDY 3: Temperature Monitor

```
import random

def monitor_temperature(temp, low, high, alert):
    if temp < low or temp > high:
        alert(temp, low, high)

def alert(temp, low, high):
    print(f"ALERT: Temperature {temp:.2f} is {'below' if temp < low else 'above'} limit {low if temp < low else high:.2f}!")

def random_temp(low=20, high=40):
    return random.uniform(low, high)

low, high = 25.0, 35.0
for _ in range(10):
    monitor_temperature(random_temp(), low, high, alert)
```

```
ALERT: Temperature 21.91 is below limit 25.00!
ALERT: Temperature 21.03 is below limit 25.00!
ALERT: Temperature 36.04 is above limit 35.00!
ALERT: Temperature 35.49 is above limit 35.00!
ALERT: Temperature 36.63 is above limit 35.00!
ALERT: Temperature 36.49 is above limit 35.00!
ALERT: Temperature 20.81 is below limit 25.00!
```