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qcm_nm.py > ...
8
9 # Function to detect defect
10 def detect_defect(temperature, vibration):
11     if temperature > 80 or vibration > 7:
12         return True
13     else:
14         return False
15
16 # Simple chatbot function
17 def chatbot_response(question):
18     if "temperature" in question.lower():
19         return "The ideal temperature should be below 80°C."
20     elif "defect" in question.lower():
21         return "Defects are usually detected when temperature or vibration is too high."
22     else:
23         return "I'm here to help with quality control."
24
25 # Main program
26 temperature, vibration = get_sensor_data()
27 print("Sensor Reading:")
28 print("Temperature:", temperature, "°C")
29 print("Vibration:", vibration)
30
31 if detect_defect(temperature, vibration):
32     print("Defect Detected!")
33 else:
34     print("No Defect Detected.")
35
36 # Simulate chatbot question
37 user_question = "What is the ideal temperature?"
38 print("\nUser:", user_question)
39 print("Chatbot:", chatbot_response(user_question))

```

OUTPUT

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PS C:\Users\Vishveswar\vsc> & C:/Users/Vishveswar/AppData/Local/Programs/Python/Python313/python.exe
Sensor Reading:
Temperature: 65 °C
Vibration: 8
Defect Detected!

User: What is the ideal temperature?
Chatbot: The ideal temperature should be below 80°C.

```