

AI ASSISTED CODING

LAB EXAM-1

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Q1. Zero-shot Prompting in Healthcare

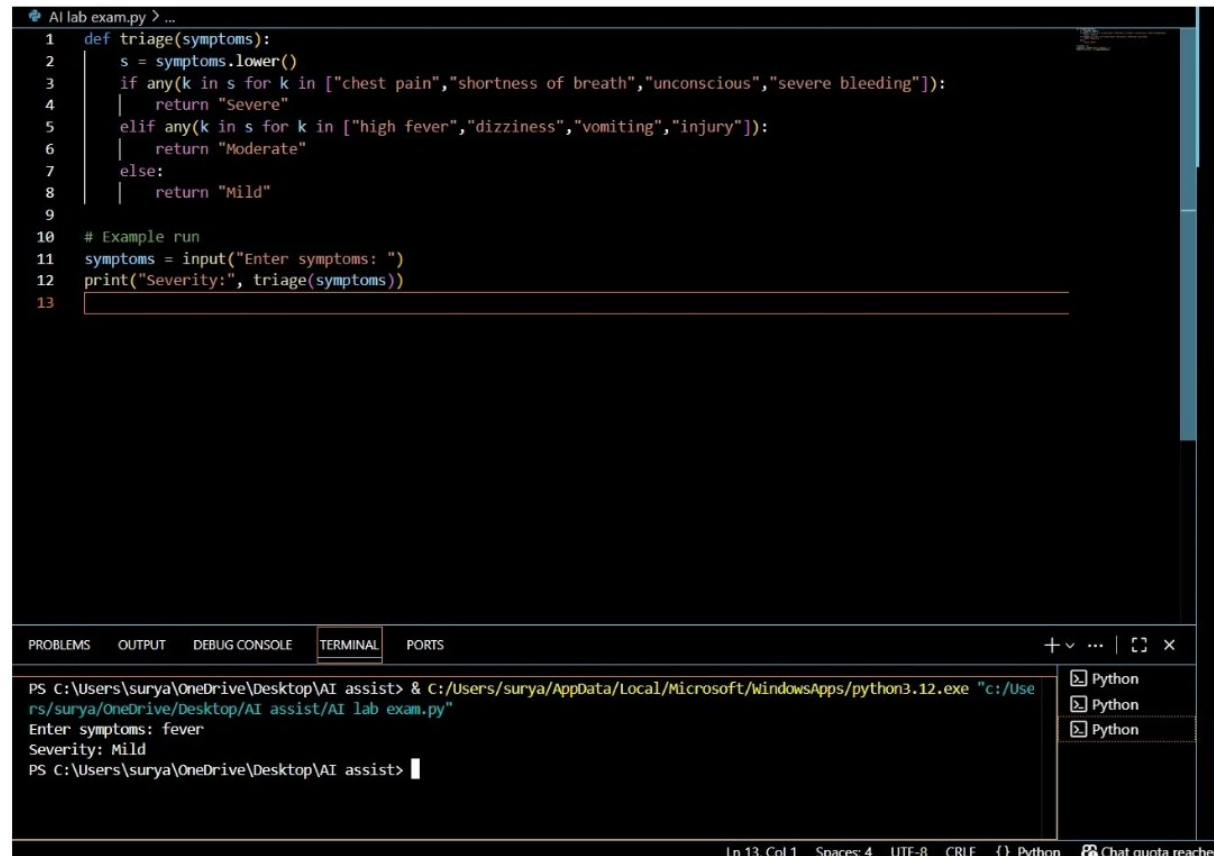
• **Task 1:** Write a zero-shot prompt that classifies the severity of symptoms without giving any examples

Prompt:

"You are a medical triage assistant. Given a patient's described symptoms, classify the severity of the condition into one of three categories: Mild, Moderate, or Severe.

Provide only the classification without explanation".

CODE :



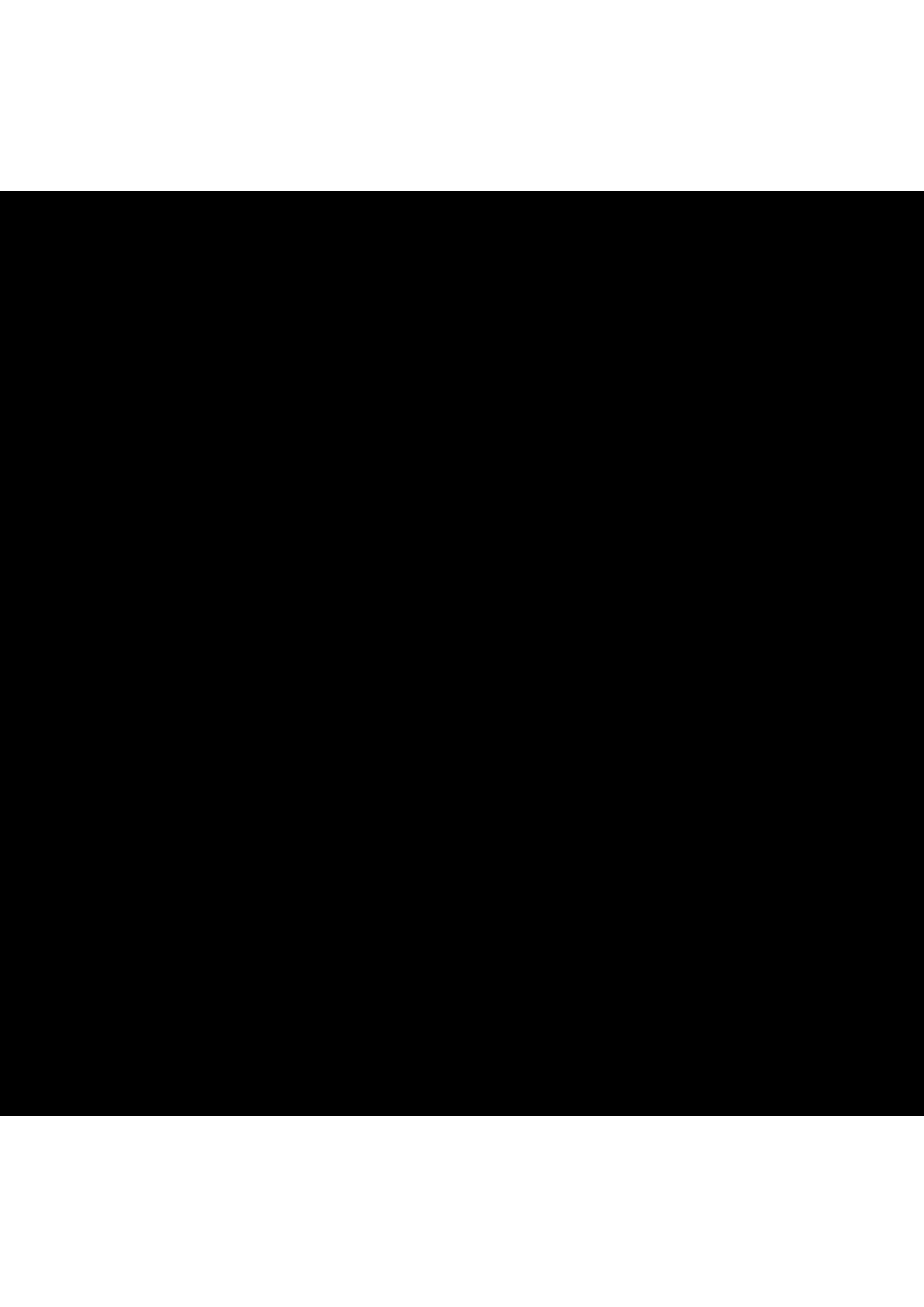
```
1 def triage(symptoms):
2     s = symptoms.lower()
3     if any(k in s for k in ["chest pain", "shortness of breath", "unconscious", "severe bleeding"]):
4         return "Severe"
5     elif any(k in s for k in ["high fever", "dizziness", "vomiting", "injury"]):
6         return "Moderate"
7     else:
8         return "Mild"
9
10 # Example run
11 symptoms = input("Enter symptoms: ")
12 print("Severity:", triage(symptoms))
13
```

PS C:\Users\surya\OneDrive\Desktop\AI assist> & C:/Users/surya/AppData/Local/Microsoft/WindowsApps/python3.12.exe "c:/Users/surya/OneDrive/Desktop/AI assist/AI lab exam.py"

Enter symptoms: fever

Severity: Mild

PS C:\Users\surya\OneDrive\Desktop\AI assist>



Observation:

The code gives a quick diet plan. Without context, it suggests a general healthy diet, and with context (e.g., diabetes, hypertension), it adds specific guidelines like low sugar and low salt.

Q2. One-shot vs Few-shot for Customer Support

•Task 1: Write:

oA one-shot prompt with 1 example of classification.

oA few-shot prompt with 3–4 examples.

Prompt : One-shot Prompt

Classify emails as Refund, Order Status, or Technical Issue.

Example:

Email: 'I want my money back for these shoes.' → Refund

Email: 'My package is delayed, any update?'

Prompt : Few-shot

Classify emails as Refund, Order Status, or Technical Issue.

Email: 'I want my money back.' → Refund

Email: 'Where is my order?' → Order Status

Email: 'The website checkout isn't working.' → Technical Issue

Email: 'I got the wrong size, need a refund.' → Refund

Email: 'I can't track my order with the link.'

CODE :

The screenshot shows a VS Code editor with a file named 'AI lab exam.py'. The code defines a function 'classify_email(email)' that classifies support emails based on keywords. The keywords are grouped into three categories: 'Refund' (refund, return, money back, send it back, wrong size), 'Order Status' (order, package, tracking, shipped, arrive), and 'Technical Issue' (error, issue, problem, not working, bug, checkout). If no keywords are found, the email is categorized as 'Uncategorized'. Below the function definition, there are three example calls to the function with their corresponding outputs: 'I want my money back for these shoes' returns 'Refund', 'My package hasn't arrived yet, any update?' returns 'Order Status', and 'The payment page keeps showing an error' returns 'Technical Issue'.

```
1 def classify_email(email):
2     e = email.lower()
3     if any(k in e for k in ["refund", "return", "money back", "send it back", "wrong size"]):
4         return "Refund"
5     elif any(k in e for k in ["order", "package", "tracking", "shipped", "arrive"]):
6         return "Order Status"
7     elif any(k in e for k in ["error", "issue", "problem", "not working", "bug", "checkout"]):
8         return "Technical Issue"
9     else:
10        return "Uncategorized"
11
12 # Examples
13 print(classify_email("I want my money back for these shoes"))
14 print(classify_email("My package hasn't arrived yet, any update?"))
15 print(classify_email("The payment page keeps showing an error"))
16
```

The terminal output shows the results of running the script:

```
Order Status
Technical Issue
PS C:\Users\surya\OneDrive\Desktop\AI assist> & C:\Users\surya\AppData\Local\Microsoft\WindowsApps\python3.12.exe "c:/Users/surya/OneDrive
/Desktop/AI assist/AI lab exam.py"
Refund
Order Status
Technical Issue
PS C:\Users\surya\OneDrive\Desktop\AI assist>
```

Observation:

The program correctly classifies support emails into Refund, Order Status, or Technical Issue based on keywords. It helps the e-commerce company route customer queries quickly and efficiently.

•Task 2 : Use the same incoming email text for both prompts. Compare how the outputs differ and explain why.

Prompt : One-shot

"Classify emails as Refund, Order Status, or Technical Issue.

Example: Email: 'I want my money back for these shoes.' → Refund

Email: 'I can't track my order, the link isn't working.'"

Likely Output: Order Status

Prompt : Few-shot

"Classify emails as Refund, Order Status, or Technical Issue.

Email: 'I want my money back.' → Refund

Email: 'Where is my order?' → Order Status

Email: 'The website checkout isn't working.' → Technical Issue

Email: 'I got the wrong size, need a refund.' → Refund

Email: 'I can't track my order, the link isn't working.'"

Likely Output: Technical Issue

CODE:

```
lab6.4.py AI lab exam.py X
AI lab exam.py > ...
1 email = "I can't track my order, the link isn't working."
2
3 # One-shot (less context)
4 if "refund" in email.lower():
5     one_shot = "Refund"
6 else:
7     one_shot = "Order Status"
8
9 # Few-shot (more context)
10 if any(w in email.lower() for w in ["refund", "money back", "return"]):
11     few_shot = "Refund"
12 elif any(w in email.lower() for w in ["error", "not working", "problem"]):
13     few_shot = "Technical Issue"
14 elif "order" in email.lower():
15     few_shot = "Order Status"
16 else:
17     few_shot = "Uncategorized"
18
19 print("One-shot Output:", one_shot)
20 print("Few-shot Output:", few_shot)
21

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
/Desktop/AI assist/AI lab exam.py
One-shot Output: Order Status
Few-shot Output: Order Status
PS C:\Users\surya\OneDrive\Desktop\AI assist> & C:/Users/surya/AppData/Local/Microsoft/WindowsApps/python3.12.exe "c:/Users/surya/OneDrive
/Desktop/AI assist/AI lab exam.py"
One-shot Output: Order Status
Few-shot Output: Order Status
PS C:\Users\surya\OneDrive\Desktop\AI assist>

Ln 21, Col 1 Spaces: 4 UTF-8 CRLF {} Python Chat quota reached 3.12.10 (Micro
```

Observation:

The code shows that with the same email text, the one-shot prompt gives Order Status (less context, misclassified), while the few-shot prompt gives Technical Issue (more examples, better accuracy).