**AI Assisted coding**

**Lab Test - 1**

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**Q1. Zero-shot Classification [5M]**  
• Scenario: Classify tweets into “Positive,” “Negative,” or “Neutral.”  
• Task 1: Write a zero-shot prompt to classify sentiment without any examples.  
• Task 2: Create a scenario where an AI assistant needs to help a student solve math problems.

**Task - 1:**

**Prompt:**

“Classify the following tweet as “Positive,” “Negative,” or “Neutral” based on its sentiment using a python Code.”  
Tweet: "I just got a new job and I’m so excited!"

**Code Generated:**

*def classify\_tweet\_sentiment(tweet):*

*positive\_words = ["excited", "happy", "love", "great", "good", "cool", "amazing", "wonderful", "joy", "awesome", "fantastic", "best", "success"]*

*negative\_words = ["sad", "angry", "bad", "hate", "terrible", "upset", "disappointed", "worst", "fail", "awful", "horrible", "problem"]*

*tweet\_lower = tweet.lower()*

*if any(word in tweet\_lower for word in positive\_words):*

*return "Positive"*

*elif any(word in tweet\_lower for word in negative\_words):*

*return "Negative"*

*else:*

*return "Neutral"*

*tweet = input("Enter a tweet to classify its sentiment: ")*

*sentiment = classify\_tweet\_sentiment(tweet)*

*print(f'Tweet: "{tweet}"\nSentiment: {sentiment}')*

**Code Image:**

*A computer screen shot of text

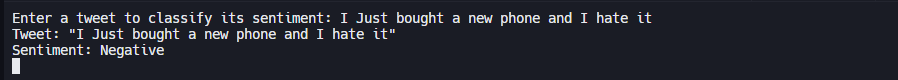
AI-generated content may be incorrect.*

**Output:**

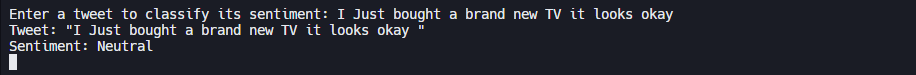
1. **Positive tweet**



1. **Negative tweet**



1. **Neutral tweet**

****

**Observation:**

1. The program attempts by checking for keywords related to positive and negative emotions.
2. For the input tweet: "I just got a new job and I’m so excited!"
3. the algorithm finds the word “excited” in the positive word list.
4. Since positive words are detected and no negative words appear, the classifier correctly predicts: Positive

**Task – 2:**

**Prompt Without Context:**

Help the student solve the following math problem:  
"What is 7 multiplied by 8?" using c programming language

**Code Generated:**

*#include <stdio.h>*

*int main() {*

*int a, b, result;*

*printf("Enter the first number: ");*

*scanf("%d", &a);*

*printf("Enter the second number: ");*

*scanf("%d", &b);*

*result = a \* b;*

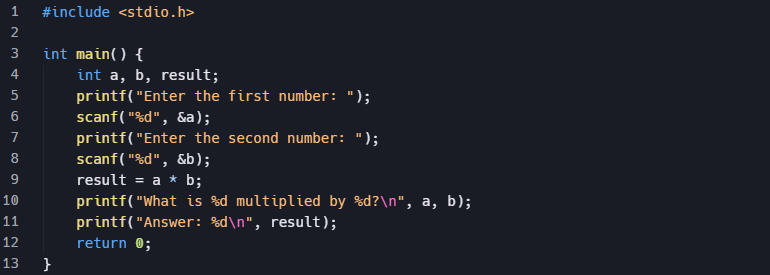
*printf("What is %d multiplied by %d?\n", a, b);*

*printf("Answer: %d\n", result);*

*return 0;*

*}*

**Code Image:**



**Output:**

**Prompt With detailed Context:**

“You are an AI assistant helping a 6th-grade student with math homework. The topic is multiplication, and the difficulty level is basic.”

**Code Generated:**

*#include <stdio.h>*

*int main() {*

*int a = 7, b = 8, result;*

*printf("You are a 6th-grade student learning multiplication.\n");*

*printf("Let's solve: What is %d multiplied by %d?\n\n", a, b);*

*printf("Step 1: Write the numbers: %d and %d.\n", a, b);*

*printf("Step 2: Multiply them together.\n");*

*printf("%d x %d = ", a, b);*

*result = a \* b;*

*printf("%d\n", result);*

*printf("So, %d multiplied by %d equals %d.\n", a, b, result);*

*printf("Multiplication means adding %d eight times: ", a);*

*for(int i = 1; i <= b; i++) {*

*printf("%d", a);*

*if(i < b) printf(" + ");*

*}*

*printf(" = %d\n", result);*

*printf("Great job!\n");*

*return 0;*

*}*

**Code Image:**

A computer code on a black background

AI-generated content may be incorrect.

**Output:**

***A group of lights in a row

AI-generated content may be incorrect.***

**Observation:**

**The program calculates the product of two user-inputted numbers but presents the output in a peculiar way. Instead of simply stating the result, it first poses a question to the user, "What is [first number] multiplied by [second number]?," and then immediately provides the answer. This suggests the program is designed to be interactive or to simulate a quiz, even though it provides the solution right after the question. The variable result stores the correct answer, which is then printed to the console. The code is functionally correct for its purpose, but the order of the printf statements makes the interaction a bit unusual.**