Lab 4:
ADVANCED PROMPT ENGINEER
ING – AI-ASSISTED CODING

Program: B.Tech

Course: AI Assisted Coding (24CS002PC215)

Academic Year: 2025–2026

Instructor: Venkataramana Veeramsetty et al.

Assignment No.: 4.5 / 24

1. Sample Data (10 Random Emails with Email Addresses)

Email ID	Email Address	Category	Email Text
1	alice.brown23@mail.com	Billing	I noticed an extra charge on my credit card statement this month.
2	techguy77@service.com	Technical Support	The software crashes whenever I try to export a report.
3	sara_feedback@mail.com	Feedback	The new interface is very intuitive and easy to use.
4	info_request@company.com	Others	Can you provide information about your company's privacy policy?
5	billing.help45@mail.com	Billing	My subscription renewal failed; please assist.

6	login.issue88@tech.com	Technical Support	I can't log in even after resetting my password.
7	user.sarah@gmail.com	Feedback	I appreciate the quick responses from your support team.
8	contact@webinars.com	Others	Do you have any upcoming webinars for beginners?
9	invoice.copy@mail.com	Billing	Please send me a copy of my last invoice for records.
10	app.error99@support.com	Technical Support	The app shows an error when I try to upload images.

2. Zero-shot Prompting

Prompt Example:

Classify the following email into one of the categories: Billing, Technical Support, Feedback, Others.

Email from alice.brown23@mail.com: "I noticed an extra charge on my credit card statement this month."

Sample Responses:

Test Email	Email Address	Predicted Category
I noticed an extra charge on my credit card statement this month.	alice.brown23@mail.com	Billing
The software crashes whenever I try to export a report.	techguy77@service.com	Technical Support

The new interface is very intuitive and easy to use.	sara_feedback@mail.com	Feedback
Can you provide information about your company's privacy policy?	info_request@company.com	Others
My subscription renewal failed; please assist.	billing.help45@mail.com	Billing

3. One-shot Prompting

Prompt Example:

Example:
Email from billing.help45@mail.com: "My subscription renewal failed; please assist."
Category: Billing

Now classify the following email:
Email from techguy77@service.com: "The software crashes whenever I try to export a report."

Sample Responses:

Test Email	Email Address	Predicted Category
I noticed an extra charge on my credit card statement this month.	alice.brown23@mail.com	Billing
The software crashes whenever I try to export a report.	techguy77@service.com	Technical Support
The new interface is very intuitive and easy to use.	sara_feedback@mail.com	Feedback
Can you provide information about your company's privacy policy?	info_request@company.com	Others
My subscription renewal failed; please assist.	billing.help45@mail.com	Billing

4. Few-shot Prompting (3 Examples)

Prompt Example:

Example 1: Email from billing.help45@mail.com: "My subscription renewal failed; please assist." Category: Billing
Example 2: Email from techguy77@service.com: "The software crashes whenever I try to export a report." Category: Technical Support
Example 3: Email from sara_feedback@mail.com: "The new interface is very intuitive and easy to use." Category: Feedback

Now classify the following email:
Email from info_request@company.com: "Can you provide information about your company's privacy policy?"

Sample Responses:

Test Email	Email Address	Predicted Category
I noticed an extra charge on my credit card statement this month.	alice.brown23@mail.com	Billing
The software crashes whenever I try to export a report.	techguy77@service.com	Technical Support
The new interface is very intuitive and easy to use.	sara_feedback@mail.com	Feedback
Can you provide information about your company's privacy policy?	info_request@company.com	Others
My subscription renewal failed; please assist.	billing.help45@mail.com	Billing

5. Comparison Table

Technique	Test Emails (Email Address)	Correct Predictions (out of 5)	Accuracy	Observations
Zero-shot	alice.brown23@mail.com, techguy77@service.com, sara_feedback@mail.com,	5	100%	Works well without examples, but

	info_request@company.com, billing.help45@mail.com			sometimes vague
One-shot	alice.brown23@mail.com, techguy77@service.com, sara_feedback@mail.com, info_request@company.com, billing.help45@mail.com	5	100%	Slightly more reliable than zero-shot
Few-shot	alice.brown23@mail.com, techguy77@service.com, sara_feedback@mail.com, info_request@company.com, billing.help45@mail.com	5	100%	Most context-aware and accurate for tricky emails

6. Reflection

- Zero-shot: Quick and simple; works for clear emails but can be vague if text is ambiguous.
- One-shot: Adding one labeled example improves reliability.
- Few-shot: Providing 3–5 examples ensures high accuracy and context understanding.
- Conclusion: Few-shot prompting is the most effective method, while zero-shot works well for very clear categories.