

**Register no: 212222090012**

**Ex no.7-Develop a prompt-based application tailored to their personal needs, fostering creativity and practical problem-solving skills while leveraging the capabilities of large language models.**

**Aim: To develop a prompt-based application using ChatGPT - To demonstrate how to create a prompt-based application to organize daily tasks, showing the progression from simple to more advanced prompt designs and their corresponding outputs.**

**AI Tools Required:**

CHATGPT

**Explanation:**

Prompt: "Design a personal productivity assistant that can help manage daily tasks, schedule reminders, suggest wellness tips, and answer general queries. The assistant should interact using natural language and be adaptable to the user's changing preferences over time."

Procedure:

1. Define the core requirements of a personal productivity assistant.
2. Identify and construct appropriate prompts for each task using an LLM (e.g., ChatGPT).
3. Simulate natural user interaction through a simple interface or command-line system.
4. Collect feedback or inputs from users and adapt responses accordingly.
5. (Optional) Integrate basic memory to simulate preference adaptation.  
EXPECTED OUTPUT: - (attached the drive link) Output (Example Response by LLM): Personal Productivity Assistant Features:
6. Daily Task Manager:
  - o Accept tasks via natural language (e.g., "Remind me to call mom at 6 PM").
  - o Organize tasks by priority and deadline.
  - o Provide daily summaries and pending items.

7. Smart Scheduler:
  - o Schedule events and set reminders using contextual understanding.
  - o Notify user of overlapping appointments or free time slots.
8. Wellness Tips Generator:
  - o Suggest daily wellness advice (hydration, exercise, screen-time breaks).
  - o Adapt suggestions based on past user preferences and responses.

## OUTPUT:

# Design: Personal Productivity Assistant (LLM-Powered)


## ◆ 1. Core Requirements


- **Natural Language Interaction:** Understand casual and varied user inputs.
- **Daily Task Management:** Add, list, organize, and delete tasks.
- **Scheduling & Reminders:** Context-aware reminder setup.
- **Wellness Guidance:** Contextual health tips.
- **Learning Preferences:** Adapt to user feedback and behavior over time.


## ◆ 2. Prompts for Each Feature

Feature	Example User Prompt	LLM Action Prompt
Task Manager	"Remind me to submit the project by 4 PM tomorrow."	Extract task, deadline, and store it with priority tagging.
Task Summary	"What do I have to do today?"	Retrieve and list today's tasks with status.
Smart Scheduler	"Set a meeting with Rahul after lunch."	Infer time, check conflicts, confirm free slot.
Reminder Setup	"Remind me to drink water every 2 hours."	Set recurring reminders with hydration goal.
Wellness Tips	"Give me a wellness tip."	Generate adaptive advice (e.g., posture, hydration, eye strain).
Adaptive Memory	"I prefer reminders only in the morning."	Store preference and filter future prompts accordingly.

## ◆ 3. Simulated Interface (Command-Line Interaction)

 User: Remind me to check emails at 9 AM.

 Assistant: Got it! I'll remind you to check emails at 9 AM.


 User: What's on my schedule today?

 Assistant: Today, you have:


1. Check emails at 9 AM
2. Submit project by 4 PM


Would you like to add or reschedule anything?

 User: Give me a wellness tip.

 Assistant: Remember to take a 5-minute screen break every hour to reduce eye strain.

#### ◆ 4. Feedback & Adaptation Example


 User: I don't want reminders after 8 PM.

 Assistant: Preference noted. I'll avoid setting reminders after 8 PM from now on.

#### ◆ 5. Simulated Memory (Preference Storage)

- Preference: "Morning-only reminders"
- Response Adaptation: Future reminders default to 6 AM – 12 PM
- Example:

 User: "Remind me to meditate."

 "Noted. I've scheduled your meditation reminder at 8 AM, as per your morning-only preference."

### Expected Output (LLM Response Simulation)

#### Personal Productivity Assistant Features

1. **Daily Task Manager**

- Accepts natural language task entries (e.g., "Buy groceries at 5 PM")
- Sorts by priority, deadline, and status
- Provides daily summaries and pending lists

## **2. Smart Scheduler**

- Understands context-based scheduling
- Suggests available time slots
- Detects and notifies scheduling conflicts

## **3. Wellness Tips Generator**

- Offers daily health tips (posture, hydration, sleep)
- Adapts based on user responses (e.g., skips step-count suggestions if rejected)

## **4. Adaptive Preference Learning**

- Learns preferred notification times, task types, and frequency
- Reduces repetitive suggestions, increases personalization

# **Result:**

The lab exercise resulted in the creation of a prototype concept for a personal assistant powered by large language models. Students were able to:

- Understand how to tailor LLM prompts to real-life applications.
- Foster creativity by designing features suited to their personal or academic lives.
- Learn prompt engineering techniques for optimal