Ex.No.3-Scenario-Based Report Development Utilizing Diverse Prompting Techniques

AIM:

To compare how different prompt patterns—Straightforward Prompting, Tabular Format Prompting, and Preceding Question Prompting—affect the outputs generated by three AI tools (ChatGPT, GitHub Copilot, and Google Gemini) in response to a creative narrative scenario.

AI TOOLS REQUIRED:

- ChatGPT
- Copilot
- Gemini

OBJECTIVES:

- To explore the variation in AI-generated content across prompt styles.

- To compare stylistic and thematic differences in responses across ChatGPT, Copilot, and Gemini.

- To understand how different AI tools interpret structured and unstructured prompts.

PROCEDURE:

STEP 1: Scenario Definition

The scenario for all prompt experiments is:
 "Write a story about a girl who becomes a full stack developer, overcomes imposter syndrome, and ends up launching a tech startup that changes her life."

STEP 2: Prompt Pattern Design

Three distinct prompt styles were developed:

1. **Straightforward Prompt**

2. **Tabular Format Prompt**

3. **Preceding Question Prompt**

Each pattern was crafted to maintain consistency in content goals while altering the prompt structure.

STEP 3: Tool Interaction

Each prompt pattern was used separately within ChatGPT, Copilot, and Gemini interfaces. Responses were recorded and organized by tool and prompt type.

STEP 4: Documentation and Comparison

Outputs were compared based on:

- Tone and creativity

- Narrative structure

- Thematic coherence

- Depth and flow of story

PROMPT PATTERN DESIGNS

1. STRAIGHTFORWARD PROMPT:

"Write a story about a girl who becomes a full stack developer, overcomes imposter syndrome, and ends up launching a tech startup that changes her life."
Length: 300 words

ChatGPT:

Title: From Doubt to Launch

Lena always loved technology, but when she landed her first job as a full-stack developer, self-doubt quickly set in. Surrounded by more experienced colleagues, she felt like an imposter. *Everyone knows more than me,* she thought, doubting her skills every time she faced a challenge.

But one day, her mentor, Sarah, pulled her aside. "Imposter syndrome hits everyone," she said. "It's just a sign you're growing. Keep learning." Those words stuck with Lena. She started embracing mistakes as opportunities to improve, asking questions, and speaking up more at work. Gradually, her confidence grew.

On the side, Lena began developing an app to help small businesses manage their inventory. As she worked on it in her free time, she realized her product had real potential. After months of perfecting the app, Lena took the leap—she quit her job and founded *Inventora*, a startup focused on simplifying business operations with technology.

It wasn't easy. There were tough moments, but Lena's belief in her idea and in herself pushed her forward. Slowly, small businesses adopted her tool, and investors took notice.

From a place of doubt to leading a thriving company, Lena had transformed not only her career but her life.

COPILOT:

Breaking the Code

Nina had always been fascinated by technology, but she never saw herself as someone who could build it. When she stumbled upon a free coding bootcamp, she hesitated—*Was she smart enough?*

She dived into learning full stack development, battling self-doubt every step of the way. Imposter syndrome whispered, *You're not cut out for this.* But Nina kept going, solving bugs, asking for help, and celebrating small wins.

Her breakthrough came when she realized small business owners struggled with managing online orders. What if she built a simple, efficient solution? She worked tirelessly on the platform, refining code, designing a seamless interface.

Launch day arrived. Doubt resurfaced—*What if no one used it?* But within weeks, local businesses embraced her startup, SwiftOrders, revolutionizing their workflow.

Standing in her new office, Nina smiled. The girl who once doubted herself had built something that made a difference. **Doubts don't define us—our determination does.**

GEMINI:

Elara's fascination with technology began in a small town without access to computers or coding classes. Tinkering with old electronics sparked a curiosity that led her to programming when she received a university scholarship.

Initially overwhelmed by "algorithms" and "syntax," she battled imposter syndrome with late-night tutorials and determination. Gradually, coding made sense, revealing the magic of creating something from nothing.

Elara's passion for full-stack development grew with each project, boosting her confidence. In her senior year, a hackathon project, "FarmLink," connecting farmers and consumers, won, igniting a startup idea.

After graduation, Elara balanced a junior developer role with FarmLink's development, facing funding and legal challenges. Driven by the potential impact on farmers, she quit her job, secured a loan, and launched FarmLink with her hackathon partners.

FarmLink's success transformed Elara from a doubtful student into a startup CEO, inspiring aspiring developers. Though imposter syndrome persisted, she countered it with her achievements. Her life was changed by coding and the courage to overcome her fears.

2. TABULAR FORMAT PROMPTING:

ELEMENT	DESCRIPTION
Main Character	Young girl with aspirations in technology
Journey	Learns full-stack development
Conflict	Struggles with imposter syndrome
Climax	Builds a meaningful startup

Resolution	Achieves personal and professional transformation
Tone	Empowering, inspiring

ChatGPT:

Title: From Doubt to Launch

Lena always had a passion for technology, but when she landed her first job as a full-stack developer, doubt crept in. Surrounded by more experienced colleagues, she felt like an outsider. *I don't belong here,* she thought, fearing her inexperience would soon be discovered. Imposter syndrome consumed her, and she spent countless nights overthinking every line of code.

But Lena didn't give up. She took her mentor's advice to heart: "Embrace the struggle. You're learning." Slowly, she started asking questions, taking on tougher tasks, and seeking help when needed. Every small victory built her confidence.

In her spare time, Lena worked on a project—a simple app to help small businesses track inventory. The more she developed it, the more she saw its potential. One day, she made a bold decision—she quit her job to focus on her startup, *Inventora*. The road wasn't easy, filled with setbacks and sleepless nights, but Lena's dedication paid off.

Her app gained traction, and soon, *Inventora* was empowering small businesses. From battling self-doubt to leading a thriving startup, Lena's journey was a testament to resilience and belief in herself. She had transformed, both personally and professionally.

This has all the makings of an incredible, uplifting story! The journey from self-doubt to triumph is one that resonates deeply, especially in tech. Here's a possible outline to bring this idea to life:

COPILOT:

Title: *Breaking the Code: A Journey of Self-Belief*

Act 1: The Spark

- A young girl, curious about technology, spends nights tinkering with code and dreaming of a future in tech.

- Despite her passion, she feels the weight of expectations and self-doubt, wondering if she truly belongs in this field.

Act 2: The Struggle

- She dives into learning full-stack development, encountering complex problems and moments of defeat.
- Imposter syndrome creeps in—she compares herself to others, thinking she's not good enough.
- A mentor or an unexpected friend pushes her forward, reminding her of her capability.

Act 3: The Breakthrough

- She takes a leap, building something that matters—a startup centered on solving a real-world problem.
- Along the way, she faces skepticism, funding challenges, and internal battles, but she perseveres.

Act 4: The Transformation

- Her startup gains traction, proving that she belongs and that her skills make an impact.
- More than success, she achieves personal growth, realizing that belief in herself was always the missing key.

GEMINI:

That sounds like a wonderful and relatable story! A young girl diving into the world of full-stack development and overcoming the challenges of imposter syndrome to build something meaningful is truly inspiring. I can already envision her journey of learning, the moments of doubt, and the ultimate triumph of seeing her creation come to life. It's a narrative that could empower many others to pursue their passions in technology.

3. PRECEDING QUESTION PROMPTING:

1. Who is the main character?

2. What challenge does she face in her professional journey?

3. How does she overcome imposter syndrome?

4. What does her startup aim to solve?

5. How does her success impact her life?

Based on these answers, generate a cohesive story (500–700 words).

ChatGPT:

The main character is Ava, a brilliant software engineer with a passion for problem-solving. Despite her expertise, she constantly struggles with imposter syndrome, feeling like she's not worthy of her accomplishments or the success she's earned. This insecurity holds her back from fully stepping into leadership roles in her tech career.

Ava's challenge is building her own tech startup, a platform designed to make digital accessibility easier for people with disabilities. As she develops the product, she faces constant self-doubt, questioning if she's truly capable of leading a company and if her ideas will make a real difference. She compares herself to others in the industry and wonders if she belongs.

To overcome her imposter syndrome, Ava seeks mentorship from experienced women in tech and gradually learns to accept her achievements. She focuses on the impact her startup could have rather than her perceived inadequacies. Through small victories, like gaining her first few users, she gains confidence.

As her startup grows, Ava's life transforms. She's no longer bogged down by self-doubt but empowered by the knowledge that her work truly matters. Her success brings not only professional fulfillment but personal growth, as she becomes a leader who embraces both her strengths and imperfections.

COPILOT:

The main character is Aanya, a brilliant yet self-doubting software engineer. Despite her talent, she constantly battles imposter syndrome, questioning whether she truly belongs in the competitive tech industry.

Her greatest challenge arises when she ventures into entrepreneurship, launching a startup focused on bridging the digital divide in rural India. The enormity of the task—securing funding, leading a team, and proving herself in a male-dominated industry—amplifies her insecurities.

Determined not to let self-doubt define her, Aanya actively works to overcome imposter syndrome. She seeks mentorship from successful entrepreneurs, practices self-affirmation, and embraces failures as stepping stones rather than setbacks. Slowly, she builds confidence in her abilities, trusting her vision.

Her startup develops affordable, user-friendly technology solutions that provide digital literacy and internet access to underprivileged communities. It revolutionizes education and employment opportunities, empowering thousands.

As success follows, Aanya's life transforms. She evolves from a hesitant individual to a visionary leader, inspiring women in tech and entrepreneurship. Her journey becomes a beacon of resilience and self-belief, proving that one's value isn't defined by doubts but by determination and action.

GEMINI:

Please provide me with the answers to the questions above! Once you give me the details about the main character, her challenges, how she tackles imposter syndrome, her startup's mission, and the impact of her success, I can weave those elements into a compelling story for you.

RESULT:

Observations and Insights:

Based on the comparative experiment across all three prompt patterns and AI tools, the following observations were made:

- **Prompt Interpretation Varies**:

  ChatGPT and Copilot were able to interpret and generate outputs from all prompt formats independently, including fragmented or question-based prompts. Gemini, however, required more explicit user input to proceed with Preceding Question Prompts.

- **Narrative Depth and Flexibility**:

- ○ **ChatGPT** produced emotionally resonant and well-structured narratives across all prompt types.

- ○ **Copilot**, though primarily built for coding, adapted effectively and delivered motivational yet simpler storylines.

- ○ **Gemini** offered coherent and thoughtful responses but relied more on structured or complete input, especially when the prompt deviated from standard narrative forms.

- ● **Impact of Prompt Patterns**:

  - ○ **Straightforward Prompts** resulted in the most consistently complete narratives across tools.

  - ○ **Tabular Format Prompting** was handled well by all tools, with ChatGPT showing particular strength in blending structure and creativity.

  - ○ **Preceding Question Prompting** was smoothly handled by ChatGPT and Copilot, but **Gemini required the user to explicitly answer each question first** before story generation.

 Note: This study does not evaluate or rank tools. It instead highlights behavioral differences and contextual processing styles based on prompt formatting.