Prompt Engineering A to Z : Complete Guide & Frameworks

Prepared by Nirmal Rabari

Prompt Engineering — Complete Guide & Frameworks

Prompt engineering is the process of designing clear, structured instructions for AI models so they generate accurate, useful, and consistent outputs.

It is like giving the AI:

- A role
- A goal
- Context
- Rules
- Output format
- Examples

The better the prompt, the better the result.

Simple Definition

> Prompt Engineering = The art of communicating with AI effectively.

Used in:

- Content writing
- Coding
- Marketing
- Cybersecurity
- HR
- Finance
- Research
- Automation
- AI agents
- Chatbots
- SaaS products

Core Structure of a Powerful Prompt

The best prompts usually contain:

ROLE + TASK + CONTEXT + RULES + OUTPUT FORMAT + EXAMPLES

Example:

You are an expert digital marketer.

Create a LinkedIn post for a cybersecurity company targeting SMEs in India.

Tone should be professional and simple.

Output:
- Hook
- Story
- CTA
- Hashtags

MASTER PROMPT ENGINEERING FRAMEWORKS

---

1. RTF Framework

(Role – Task – Format)

Best for beginners.

Structure

Role:
Task:
Format:

Example

Role: You are a finance analyst.

Task: Explain GST filing for small businesses in India.

Format: Step-by-step bullet points.

---

2. RISEN Framework

(Role – Instructions – Steps – End Goal – Narrowing)

Best for detailed professional prompts.

Structure

Role
Instructions
Steps
End Goal
Constraints/Narrowing

Example

You are an HR trainer.

Instructions:
Create AI training content for corporate employees.

Steps:
1. Explain AI basics
2. Show practical tools
3. Give department-wise use cases

End Goal:
Employees should use AI daily.

Narrowing:
Keep language simple and practical.

---

3. CRISPE Framework

(Capacity – Role – Insight – Statement – Personality – Experiment)

Best for creative + business prompts.

Structure

Capacity
Role
Insight
Statement
Personality
Experiment

Example

Capacity: Expert in branding

Role: Startup consultant

Insight: Indian startups struggle with positioning

Statement: Create unique branding ideas

Personality: Bold and innovative

Experiment: Give 5 unconventional ideas

---

4. COAST Framework

(Context – Objective – Actions – Scenario – Task)

Best for business workflows.

Structure

Context
Objective
Actions
Scenario
Task

Example

Context:
Cybersecurity company targeting SMEs

Objective:
Generate leads

Actions:
Create LinkedIn content calendar

Scenario:
Limited marketing budget

Task:
Provide 30 content ideas

---

5. TAG Framework

(Task – Action – Goal)

Simple and fast.

Example

Task:
Write webinar email

Action:
Use storytelling and urgency

Goal:
Increase registrations

---

6. BAB Framework

(Before – After – Bridge)

Best for marketing copywriting.

Example

Before:

Businesses waste time manually creating reports.

After:
AI automates reporting in minutes.

Bridge:
Use ChatGPT prompts and workflows.

---

7. APE Framework

(Action – Purpose – Expectation)

Best for operational prompts.

Example

Action:
Create proposal

Purpose:
Pitch AI training services

Expectation:
Professional PDF-ready format

---

8. CARE Framework

(Context – Action – Result – Example)

Best for training and teaching.

Example

Context:
Corporate AI workshop

Action:
Create practical exercises

Result:
Employees learn faster

Example:

Use HR automation prompts

---

9. TRACE Framework

(Task – Role – Action – Context – Expectation)

Best all-round framework.

Example

Task:
Build CRM workflow

Role:
AI automation expert

Action:
Design automation

Context:
Training inquiry management

Expectation:
Scalable system

---

10. SMART Prompting

(Specific – Measurable – Achievable – Relevant – Time-Bound)

Best for productivity.

Example

Create 10 LinkedIn posts for cybersecurity awareness targeting SMEs within 24 hours.

ADVANCED PROMPT ENGINEERING TECHNIQUES

---

11. Chain of Thought (CoT)

Makes AI think step-by-step.

Example

Solve this problem step-by-step before giving the answer.

Useful for:

- Coding
- Math
- Analysis
- Strategy

---

12. Few-Shot Prompting

Give examples before asking.

Example

Example 1:
Input: Weak password
Output: Use strong password with MFA

Example 2:
Input: Phishing mail
Output: Verify sender domain

Now answer:
Input: Public WiFi risk

---

13. Zero-Shot Prompting

No examples.

Write a cybersecurity awareness email.

---

14. Tree of Thought (ToT)

AI explores multiple possibilities before deciding.

Example

Generate 3 business growth strategies.
Compare pros and cons.
Choose the best one.

---

15. ReAct Framework

(Reason + Act)

Used in AI agents.

Structure

Thought
Action
Observation
Final Answer

Used in:

- AI automation
- Autonomous agents
- Research bots

---

16. Meta Prompting

Prompt that creates prompts.

Example

Create a high-converting marketing prompt for a cybersecurity company.

---

17. Self-Consistency Prompting

Ask AI to generate multiple answers and pick the best.

Example

Generate 5 solutions and choose the most practical one.

---

18. Persona Prompting

Assign a personality or expertise.

Example

Act as a Fortune 500 CEO advisor.

---

19. Constraint Prompting

Set limitations.

Example

Write under 100 words using simple English.

---

20. Structured Output Prompting

Force specific output.

Example

Output in JSON format.

UNIVERSAL MASTER PROMPT TEMPLATE

You are a [ROLE].

Your task is to [TASK].

Context:
[BACKGROUND INFORMATION]

Instructions:
1.
2.
3.

Rules:
-
-
-

Output Format:
[FORMAT]

Tone:
[STYLE]

Goal:
[FINAL OBJECTIVE]

C-R-E-A-T-E framework:

- **C**ontext: What is the background?
- **R**ole: Who is the AI acting as? (e.g., "Act as an HR Director")
- **E**xplicit Instructions: What exactly needs to be done?
- **A**udience: Who is reading this?
- **T**one: Professional, urgent, empathetic?
- **E**xamples: Give the AI a sample of the desired output format.

BEST PROMPT ENGINEERING FOR DIFFERENT DEPARTMENTS

Marketing

Act as a digital marketing strategist...

HR

Act as an HR automation expert...

Cybersecurity

Act as a cybersecurity consultant...

Finance

Act as a CFO advisor...

Coding

Act as a senior full-stack developer...

PROMPT ENGINEERING LEVELS

Level	Description
Beginner	Simple commands
Intermediate	Structured prompts
Advanced	Multi-step workflows
Expert	AI agents & automation
Architect	AI systems & orchestration

COMMON PROMPT ENGINEERING MISTAKES

❌ Vague prompts
❌ No context
❌ Too many tasks together
❌ No output format
❌ No constraints
❌ Overloading AI

BEST PRACTICES

✅ Give clear role
✅ Add context
✅ Define goal
✅ Specify format
✅ Use examples
✅ Break into steps
✅ Refine iteratively
✅ Use constraints
✅ Ask AI to think step-by-step

PROMPT ENGINEERING FOR BUSINESS AUTOMATION

For your businesses like NMR Infotech, Aegisys, and Growth Capsule, prompt engineering can help build:

- AI proposal generators
- AI training systems
- Automated email replies
- Lead qualification bots
- CRM automation
- Cybersecurity report generation
- Social media content systems
- AI-powered customer support
- AI SOP creation
- AI research assistants

HIGH-CONVERTING PROMPT FORMULA

Act as [EXPERT ROLE].

Help me achieve [GOAL].

Context:
[DETAILS]

Requirements:
-
-
-

Avoid:
-
-

Output:
[FORMAT]

Essential Prompting Frameworks & Techniques

1. CIDI Framework

Useful for structured business prompts.

CIDI = Context → Instruction → Details → Intent

Example:

Context: Small manufacturing businesses in India

Instruction: Create an AI adoption strategy

Details: Budget under ₹2 lakh

Intent: Improve operational efficiency

Why it matters: Separates what to do from why to do it.

2. ICIO Framework

Useful for enterprise workflows.

ICIO = Input → Context → Instructions → Output

Example:

Input: Customer complaint data
Context: Telecom company support team
Instructions: Categorize issues and identify patterns
Output: CSV table

Why missing: Many real-world AI systems receive structured input data.

3. Goal–Constraint–Criteria Framework (GCC)

Structure:

Goal

Constraints

Success criteria

Example:

Goal: Create a sales script

Constraints:

Under 150 words

Friendly tone

For SMEs

Success Criteria:

Clear value proposition

CTA included

Why important: Production prompts need measurable outcomes.

4. Retrieval-Augmented Prompting (RAG Prompting)

Very important in modern AI systems.

Structure:

User query

Retrieved documents

Instructions

Response rules

Example:

Use only the supplied company documents to answer.

If information is unavailable, say: "Not found in provided data."

Why essential: Used heavily in:

Enterprise chatbots

Internal knowledge systems

AI assistants

Customer support systems

5. Delimiter-Based Prompting

Use explicit separators.

Example:

Context: """ Customer reviews here """

Task: """ Summarize major complaints """

Why important:

Reduces ambiguity

Helps with long prompts

Improves parsing reliability

6. Reflection / Self-Critique Prompting

Structure:

1. Generate answer

2. Review answer

3. Improve answer

Example:

Create a proposal.

Then review it for:

clarity

grammar

persuasiveness

Then rewrite.

Why important: Improves output quality substantially.

7. Generate → Evaluate → Refine (GER)

Structure:

1. Generate solutions

2. Evaluate each

3. Improve the strongest

Example:

Generate 5 marketing campaigns.

Rate each from 1–10.

Improve the highest-scoring one.

Why important: Common in advanced AI workflows.

8. Socratic Prompting

AI asks questions before answering.

Example:

Before creating the strategy, ask me up to 5 clarifying questions.

Why important:

Prevents assumptions and hallucinations.

Useful for:

Consulting

Requirements gathering

Software projects

9. Role + Audience + Outcome (RAO)

Structure:

Role: Audience: Desired outcome:

Example:

Role: Cybersecurity consultant

Audience: Small business owners

Outcome: Explain ransomware prevention

Why important: Audience targeting strongly changes output quality.

10. XML / Markdown Structured Prompting

Example:

<role>
Senior marketing strategist
</role>

<context>
B2B cybersecurity startup
</context>

<task>
Create a campaign strategy
</task>

Why important:

Modern LLMs often perform better with structured hierarchy.

11. Multi-Agent Prompting

Structure:

Agent 1: Researcher
Agent 2: Analyst
Agent 3: Reviewer

Example:

Research market trends → analyze findings → critique recommendations

Why important:

Widely used in:

AI agents

automation systems

orchestration frameworks

12. Negative Prompting / Exclusion Rules

Example:

Avoid:

jargon

emojis

marketing buzzwords

unsupported claims

Why important: Tells the model what not to generate.

13. Confidence Prompting

Example:

Answer and provide confidence level:

High

Medium

Low

Mention assumptions separately.

Why important:

Useful for:

research

finance

compliance

analysis

14. Verification Prompting

Example:

After answering:

Check for factual inconsistencies

Verify calculations

Identify assumptions

Why important: Reduces error propagation.

15. Tool-Use Prompting (modern agent systems)

Example:

If external information is required:

1. Search

2. Analyze

3. Summarize

4. Cite source

Why important:

Core capability for:

AI agents

autonomous systems

workflow automation

Section: Prompt Engineering Lifecycle

Your guide jumps from frameworks to examples but misses the process:

1. Define objective

2. Add context

3. Specify constraints

4. Choose framework

5. Add examples

6. Test output

7. Refine

8. Evaluate consistency

9. Deploy

10. Monitor and iterate

Section: Prompt Engineering Maturity Model

Level	Focus
Beginner	Single prompts
Intermediate	Structured prompts
Advanced	Chains & workflows
Expert	Agent systems
Architect	Multi-agent orchestration
Enterprise	RAG + tools + monitoring
Research	Autonomous reasoning systems

FINAL SECRET OF PROMPT ENGINEERING

The best prompts are:

- Specific
- Context-rich
- Structured
- Goal-oriented
- Iterative

AI performs best when you communicate like a clear manager, strategist, or architect — not with random instructions.