Lesson 02 – Iterative Prompting & Self-Critique

Prompt Engineering Mini-Series

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1. What & Why

Definition – A prompt pattern that makes the LLM
1) draft an answer, 2) critique that draft, 3) revise it—optionally repeating.

Benefit	Detail
Quality boost	Model becomes its own editor—catches style issues, gaps, errors.
Rapid iteration	No extra tools; embed the loop in one prompt.
Versatile	Works for copy, code, plans, even creative writing.

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2. Basic One-Shot Loop

```
<Your task>

Step 1 - Draft the answer.
Step 2 - Critique the draft for {accuracy, completeness, style}.
Step 3 - Rewrite the answer, resolving issues from Step 2.
Return only the rewritten answer.
```

For deeper polishing: repeat Steps 2-3 up to 3 times or until *all* scores 8/10.

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3. Hands-On Templates

Template A – Prompt-Improvement Loop

```
Task: {{YOUR_TASK}}

-- Round 1 --
1 Draft answer.

-- Round 2 --
2 Score draft on Clarity, Depth, Brevity (1-10 each).
3 Rewrite any section scoring < 8.
```

```
-- Round 3 (optional) --
Repeat until every score  8 or 3 rounds total.
```

Template B – Self-QA Code Generator

```
You are Senior Python Dev.
Goal: {{FUNCTION_SPEC}}.

Pass 1 - Write function + docstring + tests.
Pass 2 - Review code: bugs, edge cases, PEP-8.
Pass 3 - Output improved code only.
```

Template C – Idea-Rank-Refine Brainstorm

```
Topic: {{TOPIC}}

Stage 1 - Generate 5 ideas.
Stage 2 - Rate Novelty & Feasibility (1-5).
Stage 3 - Expand the top idea into a 150-word concept note.
```

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4. Cheat-Sheet

```
  Iterative / Self-Critique Prompting
Cycle → Answer  Critique  Improve ( 3×)

Critique dimensions
• Accuracy • Completeness • Style • Compliance

Tips
• Use emojis (1 2 3 ) to separate steps
• Cap rounds to save tokens
• Provide an explicit scoring rubric
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5. Caveats

- Extra tokens = extra cost & latency.

- Model may "agree with itself"; ensure critique prompts encourage fault-finding.

- Monitor drift: too many rounds can over-simplify or over-complicate.

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6. 60-Minute Class Agenda

Min	Activity
0-5	Mini-lecture
5-20	Hands-on A
20-35	Hands-on B
35-50	Hands-on C
50-55	Q & A
55-60	Wrap-up & teaser