

Table of Contents

Generative AI Professional Prompt Engineering Guide	1
Generative AI Professional Prompt Engineering Guide	2
Copyright	3
Preface.....	11
Introduction.....	12
Prompting Introduction.....	14
Defining Prompting	16
Key Concepts	18
Prompt Crafting vs Engineering	20
Learning Paths (How to Use this Guide)	23
Prompt Templates Matrix	27
Prompt Problems and Solutions.....	32
Chapter 1: Foundations of Prompting.....	35
The Core Components of a Prompt	35
Mastering Prompt Engineering: From Basics to Advanced Practices	42
Agility AI - Podcasts.....	53
🔓 Unlocking the future of Artificial Intelligence in 10 Minutes! ☀️	55
📖 Exploring AI Through Research: A Podcast for the Curious Mind 🎧	56
🎓 Mastering Prompt Engineering From Basics to Advanced Practices Podcast 🎧	57
⚡ Fusion of AI and Agile 🎧	58
📖 Generative AI Professional Prompt Engineering Guide - Prompt Templates 🤖	59
Quiz: Core Components of Prompts	60
Chapter 2: Format and Use Cases for Prompt Templates.....	65
Acting As	69
Using "Acting As"	73
Let's think about this Step by Step.....	75
Using "Let's Think About This Step by Step"	78
Comparative Prompting.....	80
Using "Comparative Prompting"	84
Multiple Perspectives Prompt.....	86
Using "Multiple Perspectives"	91
Clarify Before Answering.....	93
Using Clarify Before Answering	98
Data Retrieval	100

Using Data Retrieval Prompts	104
Ask AI to Improve a Prompt.....	106
Using Ask AI to Improve a Prompt	109
AI Creates the Prompt.....	111
Using AI Creates the Prompt	114
Expert Critic.....	116
Using Expert Critic	121
Tone Changer.....	123
Using Tone Changer	127
Identify Tone.....	129
Using Identify Tone	133
Language Translator	135
Using the Language Translator	137
Include Markdown Formatting	139
Using Include Markdown Formatting.....	142
Expand a Question	144
Using the Expand a Question.....	148
Refine and Focus a Question	150
Using the Refine and Focus a Question Prompt	153
Always Include	155
Using the Always Include	158
AI Asks You Questions to form a Response	160
Using the AI Asks You Questions to form a Response	165
Fact Check A Response	167
Using the Fact Check A Response.....	169
Remove Information	171
Using the Remove Information.....	176
Using Brainstorming.....	182
Summarization	184
Using Summarization.....	189
Chapter 2 Quiz and Exercises	191
Chapter 3: Prompt Templates Detailed Documentation	196
Let's think about this in a Step by Step Process.....	200
Comparative Prompting.....	204
Multiple Perspectives.....	208
Clarify Before Answering.....	212

Data Retrieval	216
Acting As	220
Ask AI to Improve a Prompt.....	224
AI Creates the Prompt.....	228
Expert Critic.....	232
Tone Changer.....	236
Identify Tone.....	240
Language Translator	244
Include Markdown Formatting	247
Expand a Question	250
Refine and Focus a Question	253
Always Include	256
AI Asks You Questions to form a Response	259
Fact Check A Response	262
Remove Information	265
Brainstorming	269
Summarization	273
Chapter 3 Quiz	277
Chapter 3 Exercises.....	279
Chapter 3.5 The Perfect Prompt Framework	281
Section 1: The Perfect Prompt Structure Explained	283
Section 2: Practical Application: Upgrading Existing Templates	285
AI Creates the Prompt – Enhanced Template.....	285
AI Selects Prompt for You.....	287
Acting As – Enhanced Template	289
Always Include – Enhanced Template	291
Ask AI to Improve a Prompt – Enhanced Template.....	293
Brainstorming – Enhanced (Simplified) Template	295
Clarify Before Answering – Enhanced Template.....	297
Comparative Prompting – Enhanced Template	299
Data Retrieval – Enhanced Template	301
Expand a Question – Enhanced Template	303
Expert Critic – Enhanced Template.....	305
Fact Check Response – Enhanced Template	307
Identify Tone – Enhanced Template.....	309
Language Translator – Enhanced Template	311

Let's Think Step by Step – Enhanced Template.....	313
Markdown Commands – Enhanced Template.....	315
Multiple Perspectives – Enhanced Template.....	317
Refine and Focus a Question – Enhanced Template	319
Remove Information – Enhanced Template	321
Summarization – Enhanced Template	323
Tone Changer – Enhanced Template.....	325
Conclusion & Key Takeaways.....	327
Chapter 4: Advanced AI Prompting Techniques.....	327
Advanced Prompt Engineering Principles	328
Emotion Prompting	330
Algorithm of Thoughts	335
Graph of Thoughts	337
Chained Prompting	340
Conversational Prompting	343
Chapter 4 Quiz	346
Chapter 4 Exercises.....	348
Chapter 5: Combining Prompts	351
Complementary Prompts and Use Cases	352
Chapter 5 Quiz	355
Chapter 5 Exercise	357
Chapter 6: AI Learning Platform	360
NotebookLM Knowledge Base.....	362
Custom ChatGPT GPT	366
Illuminate Collaborative Discussions	372
Combining Tools for Comprehensive Learning	375
Chapter 7: Effective Prompt Patterns	377
Core Prompt Patterns	379
Pattern Selection Framework.....	403
Chapter 7 Quiz	410
Chapter 7 Exercises.....	413
Chapter 7 - Extras	419
Chapter 8 Vibe Coding for Non-Software Engineers	424
Vibe Coding Process.....	427
Vibe Coding Projects	429
Getting Started with Thonny IDE	468

Chapter 9: AI Reasoning Models and Prompt Engineering.....	472
Understanding AI Reasoning Models.....	473
Core Prompt Components for Reasoning Models	474
Evaluation and Challenges.....	477
Future Directions	477
Chapter 9 - Quiz.....	478
Chapter 9 - Exercises	480
Chapter 10: From Prompt Engineering vs Context Engineering.....	482
The Journey from Prompt to Context	483
The New Frontier: Context Engineering.....	484
Putting Context into Practice	484
The Unseen Battlefield: Security in the Age of Context	485
Chapter Summary and Review	486
Chapter 10 Quiz	487
Chapter 10 Exercises.....	490
Chapter: 11 Traditional vs Generative AI.....	491
Introduction.....	491
Foundational Academic Perspective.....	492
Educational Video Explanation	492
Structured Learning Module	493
Industry Insights from Research/Company	493
Further Distinctions and Perspectives.....	494
Comparative Summary	495
Conclusion	496
Chapter 11 Quiz	497
Chapter 11 Exercises.....	499
Chapter 12: Supplemental Materials.....	502
Book Companion GPT.....	504
Prompt Templates Matrix	505
Prompt Template Definitions.....	510
Troubleshooting Prompts.....	512
Identifying and Resolving Prompt Issues	515
Debugging Prompts	522
Optimizing Prompt Performance	525
Monitoring Ongoing Reliability	530
Methods to Reduce Hallucinations	532

AI Prompt Conventions and Guideline.....	534
Syntax and Phrasing.....	537
Formatting Conventions.....	540
Achieving Intended Outcomes.....	543
Resources	546
Agents	547
Books	547
Extras	547
Glossary	548
Courses and Certifications	558
Podcasts and Videos.....	559
Research Papers / Works Consulted	562
Tools for Prompt Engineering	568
Index	572
About the Author	577
Back Cover Page.....	578