

Assignment 1 - Phase 4 - Product Requirements Document(PRD)

Part A

Success Metrics:

From Phase 2 Goal:

Reduce prompt engineering barriers to improve user activation and retention.

From Phase 3 PO Solution:

Introduce Prompt Template Library - pre-built templates users can customize for common tasks.

Expected Impact:

Users get useful outputs faster, reducing frustration and competitive switching.

Key Metric:

Introducing prompt library helps the users to give proper prompts and get a quality output.

Metric type	Metric name	Definition	Why it matters
Key Metric	Template adoption rate	% users who use atleast one template after the first session	Discovers whether use finds value in templates, measures immediate adoption of solution
Second Metric	First prompt rate	% users who got useful output without needing to reformulate the prompt	Measures prompt template actually solves problem, users get it right first time.
Second Metric	Prompt Reformulation rate	Average number of times users rephrase their prompt before getting output which satisfies them.	Measures if the templates solves the core problem.
Guardrail metric	Template Satisfaction score	User score (1-5) based on the template satisfaction	It helps to determine template quality

Part B - Anticipate Pitfalls and Mitigations purpose

Assumption at Risk	Failure mode	Impact(H/L/M)	Likelihood	Mitigation	Detection Signal	Containment/Rollback
Template cover users diverse needs	User cant find relevant template for their specific task, limited library doesnt	high	Medium	Start with 15 templates covering top 5 use cases from research, add Request template button	Template usage rate <25%, High blank prompt usage (>75%)	Roll out new templates based on the feedback for every two weeks.

	match real use cases			for missing categories		
Templates improve output quality	Users follow templates but still get irrelevant outputs, templates don't actually help	High	Low	Test all the templates before launch, atleast with 40% of users and iterate on the feedback	average user satisfaction score less than 3 on 5, give multiple prompts for desired output	Rewrite underperforming templates, add output format specifications, provide template usage examples
Templates save user time	Template selection and customization takes longer than writing blank prompts, adds friction instead of reducing it	High	Medium	Keep the templates simple, and give an example for each template for better understanding of the feature to the user	Time to the first output for a template > blank prompt users. Template abandonment rate ≥ 40%	Simplify templates, reduce required fields, add quick-send option without customization
Templates reduce tool switching	Users still switch to ChatGPT even after using templates, templates don't prevent competitive migration	Medium	Medium	Monitor cross control usage patterns, add template variety and ensure templates work well	Check for app switching even after launch of this feature.	Add templates for specific pain points causing switches, improve template discoverability, study switching triggers

PART C - PRODUCT REQUIREMENT DOCUMENT

Product Requirement Document of Prompt Library Features for the product Claude AI

Title:

Prompt Template Library: Reducing Prompt Engineering Barriers to Improve User Activation and Retention.

Date : 10/23/2025

Version : 1.0

Design POC - Meaghan

Engineering POC - Alison

Product Manager - Praveen

Marketing Poc - Kevin

1.Objectives:

Users: Enable users to write effective, well-structured prompts on their first attempt, reducing frustration from irrelevant outputs and the need to switch to competitor tools

Business: Increase user activation rate from 60% to 75% within Q1 2026 by reducing prompt engineering friction, leading to higher engaged user base and improved free-to-paid conversion.

2. Metrics:

Objective: Reduce prompt engineering friction to improve user activation and retention

Key Results:

1. Increase 30-day user retention rate from current baseline to 20% higher within Q1 2026
2. Achieve 40% template adoption rate among new users within their first session
3. Improve first-prompt success rate to 70% for template users
4. Reduce competitive switching rate by 25% as measured by post-session surveys

3. Success metrics:

Key metric:

Percentage of users who use at least one prompt template within their first session with Claude. This directly measures if users discover and find value in templates, serving as the primary indicator of feature success. Target: 40% of new users within first 30 days.

Guardrail metrics:

1. Percentage of users who start using template but switch to blank prompt before completing. This ensures templates aren't adding complexity or friction.

2. Average user rating of template helpfulness after usage. Validates template quality remains high and relevant, if it drops below 3 signals for immediate template content review and updates.

4. User Persona:

Persona 1



User : Problem solver Pavan

Age : 24

Identity : Graduate Student, 24, Computer Engineering at Northeastern University

Quote: I think three times before I hit send now. Like, is this question really worth one of my remaining chats?

Background: Pavan spends most of his day on coding exercises and assignments for his master's program. He's a regular Claude user on the free tier, primarily using it for debugging code and technical research

Problems we are solving:

When Pavan needs to debug code or research technical topics, he wants to get accurate, relevant outputs on his first attempt so he can complete assignments efficiently without wasting his limited free tier usage.

Current Struggle:

Pavan overthinks every prompt, trying to phrase it perfectly because he fears wasting his limited messages. When prompts aren't structured well, he gets irrelevant outputs, forcing him to reformulate multiple times or switch to other AI tools, disrupting his workflow and causing frustration.

Identification of problem:

Direct Evidence from Interview:

Pavan revealed he thinks three times before hitting send, showing prompt anxiety and self-rationing behavior. Mentioned getting HTML code instead of images for UI/UX assignment, causing frustration and tool switching. Expressed difficulty knowing how to structure prompts to get desired outputs.

Validated Through Research:

5/5 interview participants mentioned prompt engineering struggles. 80% of survey respondents indicated similar difficulties. Pattern analysis showed all users waste time reformulating prompts.

Behavioral Observation:

Pavan treats each prompt as scarce resource rather than natural conversation, indicating lack of confidence in his prompting ability combined with usage limit anxiety.

Persona 2 :



User Persona: AI Engineer Uday

Identity: AI/ML Engineer, 24, Startup

Quote: After 30-40 messages in one thread, the responses become noticeably slower, so I have to open a new chat and type 'continue from where I left'

Background: Works as AI/ML Engineer developing models daily. Heavy Claude user (75% of tasks) for code generation, debugging, and system design across 3-4 hour sessions.

Problems Identification

Current Struggle: Experiences performance degradation after 30-40 messages, forcing manual conversation restarts and context re-explanation. Copy-pasting between VS Code and browser disrupts workflow, causing mental fatigue and work stoppages.

Interview Evidence: Built workaround of restarting chats with continue from where I left when performance degrades. Described copy-paste workflow as time-consuming and mentioned stopping work due to friction fatigue.

Research Validation: 3/5 participants mentioned context loss, 5/5 mentioned prompt/workflow friction. Technical users need better integration and context management for extended sessions.

Behavioral Insight: His 3-4 hour sessions hit conversation limits repeatedly, requiring constant manual context management, indicating deeper productivity cost beyond time waste.

Primary JTBD: Needs seamless, continuous assistance across long work sessions to maintain flow state and complete complex technical tasks without workflow interruptions.

Scope In

Prompt Template Library with 15 curated templates across 5 categories (Code & Debug, Research, Writing, Documentation, Learning). Simple fill-in-blank customization interface. Template rating system for quality feedback. Request new template submission form. Mobile and web responsive design.

Scope Out

AI-generated custom templates based on user history. Community-submitted user templates. Voice-to-template conversion. Real-time prompt assistance while typing. Template personalization engine. Integration with IDE extensions. Multilingual template versions

5.Solutions Proposed:

Problem statement: Users struggle to write effective prompts, leading to irrelevant outputs, time waste reformulating queries, and eventual switching to competitors perceived as more forgiving.

Core features proposed using ICE framework:

- 1.Template library with minimum 15 templates covering top use cases from research. Category-based browsing . Fill-in-blank customization with clear field labels. One-click Use template and Edit manually options.
- 2.Template rating system (1-5 stars). Request new template form. Template usage analytics dashboard. Search functionality within templates.
- 3.Most popular templates sorting. Template preview before selection. Recently used templates section. Template improvement suggestions from users.

Part 6: Product Flow

I.Customer flow:

User opens Claude and sees a Need help getting started? Try a template button in empty chat state or tooltip on first visit. Exploration: Clicks button and lands on template library page showing 5 categories with template counts. Selection: Browses category like Code & Debug and views template list with brief descriptions. Customization: Selects Debug My Code template and sees fill-in-blank form with fields for Language, Error Message, and Code Snippet. Review: Auto-generated complete prompt appears where user can edit manually or send directly. Outcome: Receives relevant output, rates template helpfulness, and returns to chat.

II. Wireframes

<https://embed.figma.com/file/bq6iszzQVnWBmhTaX9wsss/Prompt-Template-Wireframe-Flow?embed-host=notion&footer=false&theme=system>

III. User Stories

Story 1:

As a student debugging code, I want to use a pre-made debugging template so that I can structure my question properly without wasting attempts.

Story 2:

As a new Claude user, I want to see example prompts so that I can learn what good prompts look like.

Story 3:

As a researcher, I want to browse templates by category so that I can quickly find relevant prompt structures for my task.

Story 4:

As a frequent user, I want to rate templates so that I can help improve template quality for others.

Story 5:

As a professional, I want to request missing templates so that my specific use case gets covered.

IV. User Acceptance Criteria

Template Library Access: User opens Claude Chat, chat box when empty has a try a template button which is visible and clickable within 5 seconds

Template Browsing: User clicks template button, when template page loads user see 5 categories with template counts and can navigate within 2 clicks.

Template Customization: User selects template, then customization form appears, Then all fields have clear labels and placeholder examples, and user can fill and submit within 1 minute.

Template Usage: User completes customization, then click on send, where the complete prompt appears in chat and tool responds normally with no errors

Template Rating: User receives output from template, when session ends, then optional rating prompt appears asking 1-5 stars with optional comment field.

V. Edge Cases

Edge Case 1: User selects template but all fields are already pre-filled from previous usage.

Solution: Clear all fields on fresh template selection, add Use previous values checkbox option.

Edge Case 2: User's task doesn't match any available template category.

Solution: Provide Request new template link at bottom of library, allow blank prompt option always visible.

Edge Case 3: User starts customizing template but wants to switch to different template mid-way.

Solution: Add Back to templates button, don't save partial progress to avoid confusion.

Edge Case 4: Template generates prompt longer than typical message length.

Solution: Show character count, allow editing to shorten, ensure all templates stay under reasonable length limits.

Edge Case 5: User on mobile device where template form might be cramped.

Solution: Responsive design with vertical field layout, collapsible categories, touch-friendly buttons minimum 44px.

6. Event Tracking Sheet

Event Name	Trigger	Properties Captured	Purpose
template library opened	User clicks Try a template button	user id, session id, timestamp, user tier free/pro	Track discovery and access rate
template category viewed	User clicks category	category name, user id, timestamp	Understand which categories most popular
template selected	User selects specific template	template id, template name, category, user id	Track individual template popularity
template customized	User fills template fields	template id, fields filled, time spent, user id	Measure customization engagement
template sent	User sends completed template prompt	template id, was edited yes/no, user id	Track usage completion rate
template abandoned	User exits template without sending	template id, fields filled, exit point, user id	Identify friction points causing abandonment
template rated	User rates template after use	template id, rating 1-5, comment, user id	Measure satisfaction and quality
template requested	User submits new template request	use case description, user id, timestamp	Identify gaps in template coverage

7.Product Road Map

Phase	Task	Owner	Status
Week 1	Leadership approval and stakeholder alignment	Product Manager	To Do
Week 1 - 3	Design wireframes and user flows	Design Team	To Do
Week 3	Prototype testing	Product manager and design lead	To Do
Week 4 - 8	Development	Engineering manager and development team	To Do
Week 9	Testing	QA team	To Do
Week 10	Beta launch (20% of users)	Product + Market + Engineering	To Do
Week 10 - 13	Monitor Metrics, Collect feedback and iterate	Product team	To Do
Week 14	Final launch	Product Manager and Marketing	To Do

8.Dependencies

Infrastructure Requirements

Front-end storage for template content (JSON files or database). Analytics tracking system for template interaction events. A/B testing infrastructure for phased rollout (10% beta group). Mobile responsive framework for cross-device compatibility.

Budget Approval

Engineering resources: 2 developers for 3 weeks (estimated 240 hours). Design resources: 1 designer for 1 week (40 hours). Content creation: Product team 20 hours for template writing and testing. QA testing: 40 hours for beta phase monitoring.

Internal Dependencies

Design team availability for wireframe creation and UI implementation. Engineering team bandwidth aligned with sprint planning. Analytics team setup for event tracking and dashboard. Content team review and approval of template quality and accuracy.

9: Open Questions and Risks

Questions

(open to the team)

Key Risks

Risk	Mitigation	If Occurs
Low Adoption – Templates don't get discovered or used by target users	Prominent placement with onboarding tooltip, A/B test visibility	Increase visibility, add tutorial, test different entry points
Irrelevant Templates – Created templates don't match actual user needs	Base initial 15 on direct research findings, add request system	Rapidly add requested templates, survey users about gaps
Quality Issues – Templates generate poor outputs or contain errors	Internal testing before launch, rating system for feedback	Pause problematic templates, rewrite based on user feedback
Complexity Barrier – Template customization itself becomes confusing	Keep maximum 3 fields per template, allow use as-is option	Simplify forms, add more pre-filled examples, reduce required fields