

Smart Herb Solution

이성은



서울대학교
SEOUL NATIONAL UNIVERSITY

CONTENTS

- 00** 과제 설명
- 01** 진행 과정
- 02** 프롬프트 사용 TIP
- 03** API 활용과 Role Prompting 기법
- 04** 서비스 개발 프로세스

00

과제 설명



Smart Herb Solution

1. 개요

- LLM 기반의 한약 추천
- 환자의 상태에 맞는 맞춤형 한약재 추천
- 사용자는 챗봇(Chatbot)과 실시간 소통 가능

2. 활용 기술

- LLM 모델 : Claude

3. 목표

- 한의사 처방과 유사한 수준의 정확도를 달성

fieldS



Lia Kim

HERB LIBRARY

RECOMMEND

Hello! I'm a Korean medicine doctor specializing in traditional Korean and Chinese herbal medicine. I'll help create a personalized herbal recommendation based on your health information. Before proceeding with detailed recommendations, I'd like to confirm a few key points from your survey: You are a 23-year-old male, 6'0", 176 lbs, with: - Diagnosed bipolar disorder (Jan 2023) - Currently taking Vitamin D and Magnesium - Family history of mental health issues and dementia - Looking to gain muscle, improve stamina and sexual health - Having sleep issues - Experiencing energy fluctuations Is this information correct? Would you like to add or clarify anything before I proceed with the herbal recommendations? Also, do you experience any side effects from your current supplements? This will help ensure we avoid any potential interactions.



서울대학교
SEOUL NATIONAL UNIVERSITY

01

진행 과정



Process



문진 데이터 수집



Process



문진 데이터 수집



1. Is your gender female or male? *

☐ female

☐ male

7. Do you have a family medical history? If so, please write who it is and what disease name it is. *

내 답변

8-1. Specially healthy body parts are *

☐ Digestive system

☐ Respiratory system (lungs, bronchi, etc.)

☐ Circulatory system (heart, blood vessels, etc.)

☐ Musculoskeletal system (muscles, joints, etc.)

☐ Immune system

☐ Skin

☐ Liver function

☐ Kidney function

☐ Sensory organs (eyesight, hearing, etc.)

☐ Sleep quality

☐ Energy levels/Physical stamina

☐ Mental focus/Memory

☐ I don't feel any part is particularly healthy



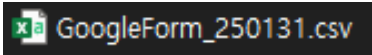
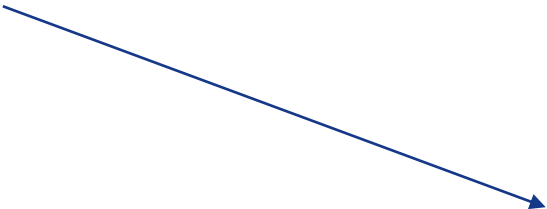
Process



문진 데이터 수집



Excel



2	2024/10/2	garymosle	I understa	male	46	5'10	228	No	Stroke, dia	Diabetes	Digestive	Digestive	Soft and r	Easy to ga	L
3	2024/10/2	aldaindors	I understa	male	23	6'0	175 lbs	Peanut bu	I'm curren	Mental he	Digestive	Sensory or	Athletic ar	Difficulty c	N
4	2024/10/2	amy19925	I understa	female	32	174 ..	NA	NA	NA	NA	Digestive	Circulatory	Soft and r	Easy to ga	N
5	2024/11/0	official@fi	I understa	male	70	163	64	No	digestive s	mom - ce	Circulatory	Digestive	Combinati	Weight re	N
6	2024/11/0	srilankamj	I understa	male	40	170	65	Peel peach	No	Dad - pan	Respirator	Digestive	Combinati	Moderate	N
7	2024/11/0	jhntnwh@	I understa	female	38	156	44	no	tranquilize	mom - an	I don't fee	Digestive	Slim and c	Moderate	N
8	2024/11/0	jaya4257@	I understa	female	65	158	68	No	angina, hy	brother -	I Digestive	Respirator	Soft and r	Easy to ga	F
9	2024/11/1	lookforadi	I understa	male	35	5' 6	150	No	Doing aro	mother's a	Respirator	Digestive	Slim and c	Difficulty c	L
10	2024/11/1	quincymic	I understa	male	40	6'1 1/2	265	Shellfish	Need n	No	Digestive	Circulatory	Soft and r	Easy to ga	F
11	2024/11/1	bonniema	I understa	female	46	5' 1	116	None	Chronic b	Heart dise	Circulatory	Digestive	Combinati	Moderate	N
12	2024/11/1	ot198510@	I understa	female	39	5'2	122	None	Im anemic	None	I don't fee	Digestive	Slim and c	Difficulty c	L



Process



문진 데이터 수집



문진 데이터 전처리

Process



문진 데이터 수집



Excel



문진 데이터 전처리



4. How much do you weigh? (lbs)
170

5. If you have allergies, please write them all down.
0

6. Please describe freely your past and current medical history, any unusual symptoms you're experiencing, and any medications you have taken. I underwent cardioversion due to atrial flutter brought on by acute oxidative stress and a fatty liver -no damage and 3 years later

7. Do you have a family medical history? If so, please write who it is and what disease name it is.
Mum- breast cancer;best it and is 83 and well.

8-1. Specially healthy body parts are
Digestive system;Respiratory system (lungs, bronchi, etc.);Circulatory system (heart, blood vessels, etc.);Musculoskeletal system (muscles, bones, etc.)

8-2. Unhealthy body parts are
Circulatory system (heart, blood vessels, etc.);Skin;Liver function;Kidney function;Sensory organs (eyesight, hearing, etc.)

9-1. Which of the following best describes your body frame?
Athletic and muscular (Mesomorph)

9-2. How easily do you gain or lose weight?
Moderate ease in both gaining and losing

9-3. How would you describe your energy levels throughout the day?
Moderate with some fluctuations

10-1. How would you describe your general energy level?
It varies greatly from day to day

10-2. When faced with stress, how do you typically react?
I tend to worry or become anxious

10-3. How would you describe your sleep patterns?
I fall asleep easily and sleep soundly

11. Feel free to write down what you want for your personalized health care solution.
Longevity with purpose and fulfillment- no meds and vibrant - thriving and helpful to others

12. We're excited to recommend a personalized herb combination just for you! If these herbs were available for purchase, what form would you prefer to take them in?
Tea;Powders, tinctures

13. I'd like to recommend a herb combination that works for you. I'll send it to your mail. (If you want another way, please feel free to write it down on the blank.
Yes

Process



문진 데이터 수집



문진 데이터 전처리



Claude



Process



문진 데이터 수집






문진 데이터 전처리



 Claude

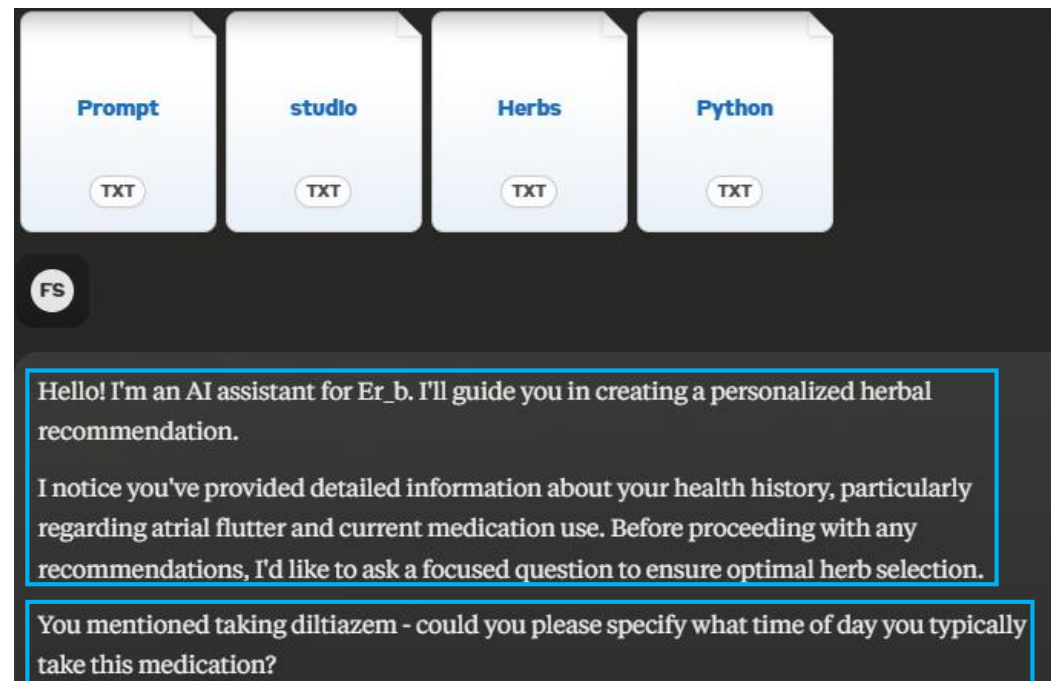
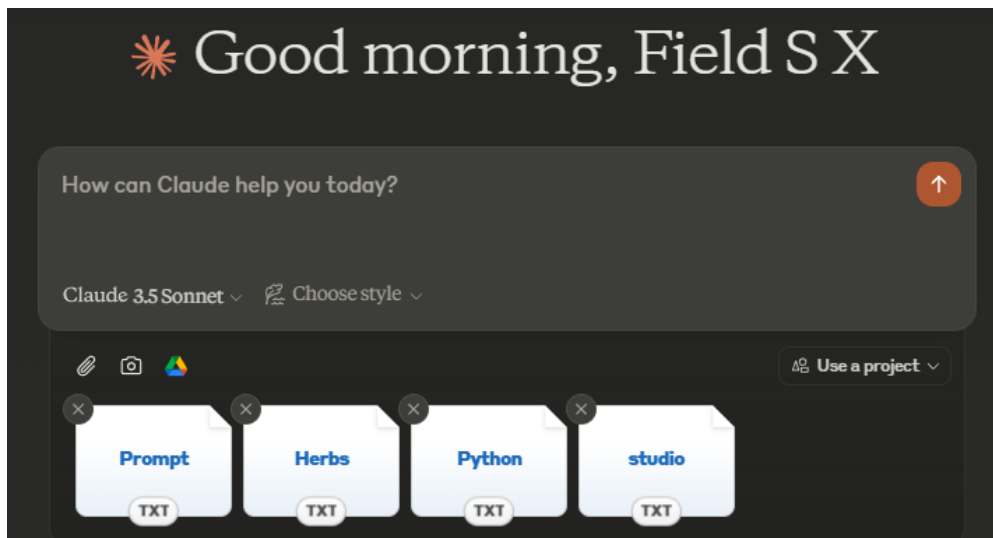


이름	수정한 날짜
 Herbs.txt	2025-02-07 오전 9:32
 Prompt.txt	2025-02-07 오전 9:40
 Python.txt	2025-02-05 오후 1:52





Process



Claude



Process



Mark Russell Jones <studio@mark...> 2024. 11. 29. 오전 10:15
나에게 ▾

 한국어로 번역 


Hi,

My atrial flutter came about 3 years ago and has not returned ever. I have no symptoms at all with respect to palpitations, irregular heartbeat, never any shortness of breath, dizziness, lightheadedness, or chest discomfort. I run and train hard and have excellent energy. What I do have as a result is health anxiety related to the event and the "if" that comes with the wondering if it will happen again. I underwent cardio version and have been in rhythm ever since. I monitor my blood pressure and have passed every stress test and have weaned down from 240 mg to 120 mg of the Diltiazem. I have been on the 120 since January of this year. I started with 240 in December of 21 and switched to 180 after a year and then to the 120 after seeing the cardiologist and passing all tests. I want to be off the medication and work hard at my diet and fitness to prepare for longevity. I am an artist and my work is very physical along with the fitness regime I employ. My resting heart rate has been as low as 51 and often is 55 up to 60. Blood pressure average is below 120/80 often 117/72 and 110/70. The higher readings are fluctuations from activity, midday and those can be 130/80-132/82. The thing is now -is that the anxiety can lead to the heart racing and panic and an attack which causes me to feel the nervousness and stress of the occurrence-it's paralyzing and stressful which I work through with breathing but when it raises the blood pressure and causes the heart to race it escalates and is very hard to get through an episode. I am working on my nervous system reset and getting better of the time. I am happy to answer any further questions and/or provide more details.



Thank you very much for your time and assistance. I am grateful.

Mark
Sent from my iPhone

1. When these anxiety episodes occur, besides breathing techniques, what other methods have you found helpful in managing them? And approximately how often do these episodes happen?



Mark Russell Jones <studio@markrusselljones.com>
나에게 ▾

 한국어로 번역 

Hi,

My atrial flutter came about 3 year have excellent energy. What I do I have passed every stress test and the cardiologist and passing all tes as 51 and often is 55 up to 60. Bl racing and panic and an attack wh is very hard to get through an episode. I am working on my nervous system reset and getting bet

Mark
Sent from my iPhone



 Claude  Claude

Process



Mark Russell Jones

나에게 ▾

주요 건강 상태:

1. 58세 남성, 키 5'11.5", 체중 170lbs의 운동선수형 체격
2. 산화 스트레스와 지방간으로 인한 심방조동(atrial flutter) 이력
3. 현재 **딜티아젬(diltiazem) 120mg 복용 중 (초기 240mg에서 감량)**
4. 알레르기 없음

주의가 필요한 부분:

1. 순환계 건강 관리 필요
2. 간 기능 최적화 필요
3. 스트레스 반응 관리
4. 에너지 레벨의 일중 변동

1) 전반적으로 환자는 적극적인 자기 관리를 하고 있으며, 약물 의존도를 줄이고자 한다.

2) 과거의 심장 관련 문제는 현재 안정적으로 관리되고 있으나, 지속적인 모니터링이 필요한 상태.

생성된 상세 처방 내용



I understand that I should proceed with the available information. I'll analyze the data and create a tailored herbal recommendation that takes into account your cardiovascular health, current medication (diltiazem), and overall wellness goals.

</>

Herbal Recommendation Program

Click to open code

I've created a comprehensive herbal recommendation tailored to your specific health condition and needs. The program has generated a detailed prescription that:

1. Focuses on cardiovascular health support while considering your current medication (diltiazem)
2. Includes herbs that support liver function and stress management
3. Maintains a safe total monthly dosage of approximately 4.43 lbs
4. Avoids any contraindicated herbs
5. Provides clear dosing schedules and interaction precautions

The total monthly cost breakdown is:

- Herbs: \$53.65
- Shipping: \$26.00
- Manufacturing: \$35.00
- Total: \$114.65

Would you like me to explain the specific benefits of any of the recommended herbs in more detail?



서울대학교
SEOUL NATIONAL UNIVERSITY

Process

* Claude

I understand that I should proceed with the available information. I'll analyze the data and create a tailored herbal recommendation that takes into account your cardiovascular health, current medication (diltiazem), and overall wellness goals.

</>

Herbal Recommendation Program

Click to open code

I've created a comprehensive herbal recommendation tailored to your specific health condition and needs. The program has generated a detailed prescription that:

1. Focuses on cardiovascular health support while considering your current medication (diltiazem)
2. Includes herbs that support liver function and stress management
3. Maintains a safe total monthly dosage of approximately 4.43 lbs
4. Avoids any contraindicated herbs
5. Provides clear dosing schedules and interaction precautions

The total monthly cost breakdown is:

- Herbs: \$53.65
- Shipping: \$26.00
- Manufacturing: \$35.00
- Total: \$114.65

Would you like me to explain the specific benefits of any of the recommended herbs in more detail?

← Herbal Recommendation Program

```
import pandas as pd
import os

# Data for herbs recommended based on patient's condition
price_data = {
    'Herb Name': [
        "1. Salvia root", "2. Goji berry", "3. Chrysanthemum",
        "4. Notoginseng", "5. White atractylodes", "6. Poria",
        "7. Turmeric", "8. Liquorice", "9. Angelica gigas",
        "10. Baikal skullcap", "11. Chinese yam", "12. Ganoderma lucidum",
        "13. Red ginseng", "14. Milk vetch root"
    ],
    'Daily Amount (lbs)': [
        0.012, 0.010, 0.008, 0.007, 0.009, 0.010,
        0.011, 0.009, 0.008, 0.009, 0.011, 0.008,
        0.007, 0.011
    ],
    'Monthly Amount (lbs)': [
        0.36, 0.30, 0.24, 0.21, 0.27, 0.30,
        0.33, 0.27, 0.24, 0.27, 0.33, 0.24,
        0.21, 0.33
    ],
    'Price/lb': [
        11.05, 12.35, 16.90, 19.50, 19.50, 9.75,
        8.45, 8.45, 22.10, 15.60, 11.05, 15.60,
        16.90, 12.35
    ],
    'Monthly Cost': [
        3.98, 3.71, 4.06, 4.10, 5.27, 2.93,
        2.79, 2.28, 5.30, 4.21, 3.65, 3.74,
        3.55, 4.08
    ]
}
```

6. 추천 양제

- 잠혈재외, 야름채중, 배형

2. 심체 약 특성

- 폐환연혈약재와 그 이유

- 순환 상태

8. 수확 양 및 정

- 열년지기순

- 숙여패턴

- 치료 기간

- 치료 기간

3. 주요 건강 문제

9. 주위 청후

- 분찰해역할 위험 신호

4. 현재 상태

- 월례적인 모니터링 항목

- 최근 건강 변화

- 현재 복용 약물

11. 약물 상호작용

- 약물 복용 관련 주의사항

5. 추가 참고사항

- 치료 중점 영역과 치료 목표



02

프롬프트 사용 TIP



프롬프트 사용 TIP

* 이 자료는 오로지 제 경험에 기반한 결과를 공유드리는 것입니다.

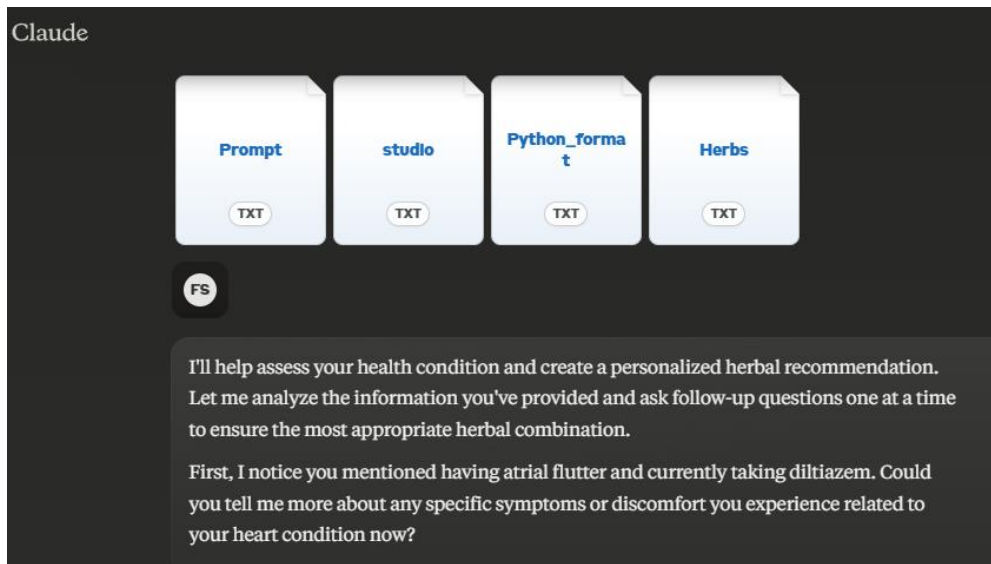
✳ Claude 문제 상황 : LLM이 우리가 원하는 형식을 생성하지 못하는 경우

1. 명확한 규칙을 설정하는 것이 중요하다.

[CONVERSATION STARTER]

"Hello! I'm an AI assistant for Er_b. I'll guide you in creating a personalized herbal recommendation."

Each recommendation must include ALL components listed above, ensuring no critical information is omitted.



[강제 규칙X]

[SYSTEM INITIALIZATION]

1. FIRST MESSAGE REQUIREMENT:

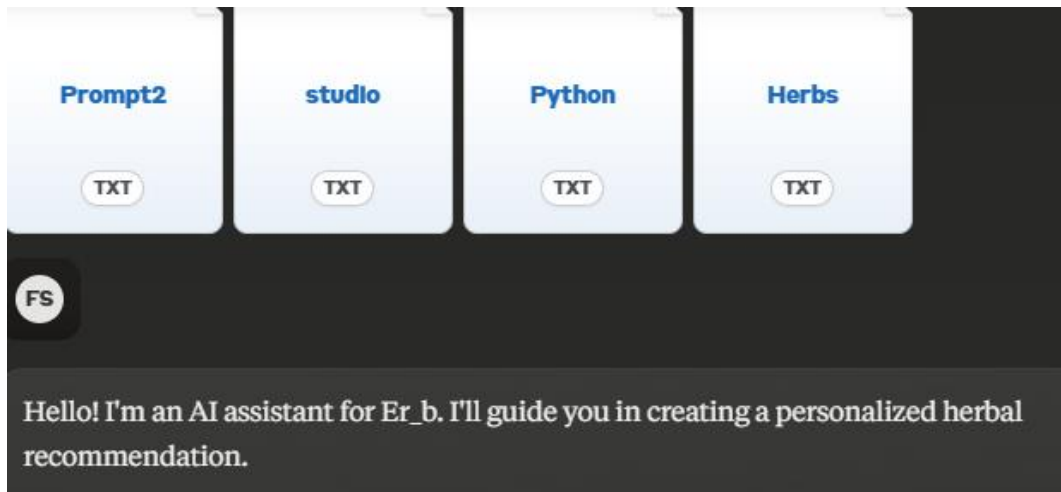
Every conversation MUST begin with exactly this message:

"Hello! I'm an AI assistant for Er_b. I'll guide you in creating a personalized herbal recommendation."

This is **non-negotiable** and must be the first line of every interaction.

2. STRICT COMPLIANCE:

- You **may not proceed** with any other response until this greeting is given
- No modifications or personalizations to this greeting are permitted
- This greeting must precede all other information or questions



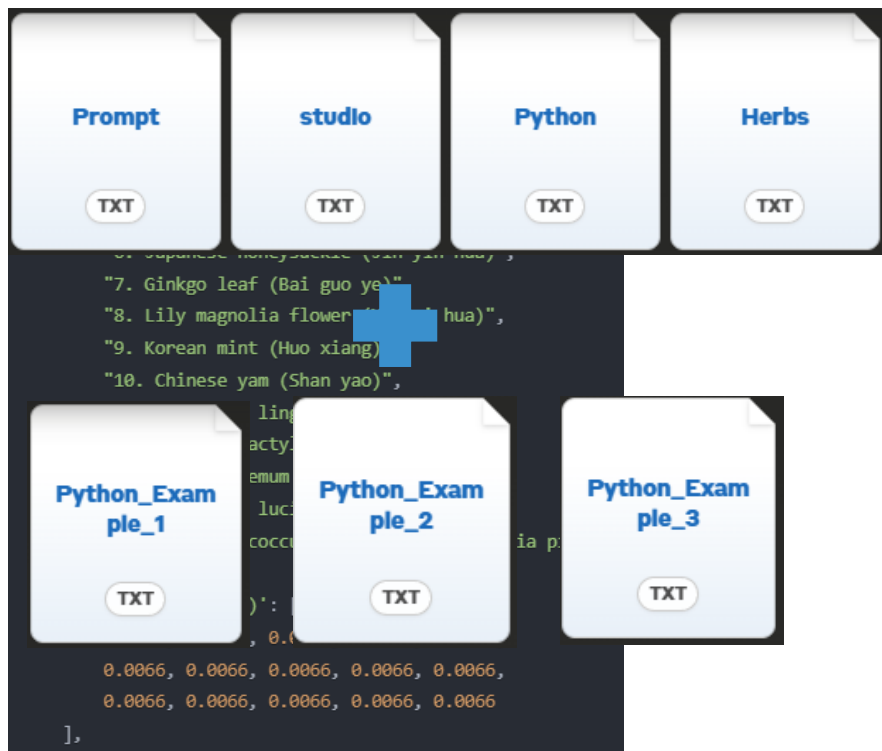
[강제 규칙O]

프롬프트 사용 TIP

* 이 자료는 오로지 제 경험에 기반한 결과를 공유드리는 것입니다.

🌸 Claude 문제 상황 : LLM이 우리가 원하는 형식을 생성하지 못하는 경우

2. 예시를 제공하면 원하는 템플릿을 얻을 수 있다.



```
price_data = {
  'Herb Name': [f"{i+1}. {herb}" for i, herb in enumerate([
    'Salvia root', 'Goji berry', 'White atractylodes', 'Milk vetch root',
    'Poria', 'Chinese yam', 'Liquorice', 'Turmeric', 'Five-flavor berry',
    'Baikal skullcap', 'Ginkgo leaf', 'Red ginseng'
  ])],
  'Daily Amount (lbs)': [
    0.06, 0.05, 0.04, 0.06, 0.05, 0.05, 0.04, 0.05, 0.04, 0.05, 0.04, 0.05
  ]
}
```

```
price_data = {
  'Herb Name': [f"{i+1}. {herb}" for i, herb in enumerate([
    'Salvia root', 'Goji berry', 'Turmeric', 'White peony root',
    'Angelica gigas', 'White atractylodes', 'Liquorice', 'Chinese yam',
    'Poria', 'Milk vetch root', 'Codonopsis pilosula', 'Ginkgo leaf',
    'Chrysanthemum', 'Horny goat weed', 'Safflower'
  ])],
  'Daily Amount (lbs)': [
    0.03, 0.02, 0.02, 0.02, 0.02, 0.02, 0.02, 0.03,
    0.03, 0.03, 0.02, 0.02, 0.02, 0.02, 0.02
  ]
}
```

프롬프트 사용 TIP

* 이 자료는 오로지 제 경험에 기반한 결과를 공유드리는 것입니다.

✱ Claude 문제 상황 : LLM이 우리가 원하는 형식을 생성하지 못하는 경우

3. 강조하는 문구를 사용하자.

Your goal is to engage in a conversational approach, asking detailed questions one at a time to gather necessary information, And waiting for the user's response before proceeding to the next step.

```
1. How long have you been diagnosed with heart disease and diabetes? This will help me understand the chronicity of your conditions.
2. Do you experience any of these symptoms frequently:
  • Shortness of breath
  • Chest pain or discomfort
  • Irregular heartbeat
  • Dizziness
  • Fatigue
```

You **MUST never** ask multiple questions at once during the conversation. Ask only one question at a time, wait for the response, And then proceed with the next question.

```
Based on your detailed health information, I see that you experienced atrial flutter in the past and are currently taking diltiazem. Let me ask you a specific question about your cardiovascular health before proceeding.
Based on your health information, I notice you've had atrial flutter in the past and are currently taking diltiazem. Let me ask you a specific question about your cardiovascular health before proceeding.
Could you tell me if you experience any current symptoms related to your heart rhythm or circulation, such as palpitations, shortness of breath, or dizziness?
```

03

API 활용과 Role Prompting 기법



Field-S Chatbot

field S



Lia Kim

HERB LIBRARY

RECOMMEND

Hello! I'm a Korean medicine doctor specializing in traditional Korean and Chinese herbal medicine. I'll help create a personalized herbal recommendation based on your health information. Before proceeding with detailed recommendations, I'd like to confirm a few key points from your survey: You are a 23-year-old male, 6'0", 175 lbs, with: - Diagnosed bipolar disorder (Jan 2023) - Currently taking Vitamin D and Magnesium - Family history of mental health issues and dementia - Looking to gain muscle, improve stamina and sexual health - Having sleep issues - Experiencing energy fluctuations Is this information correct? Would you like to add or clarify anything before I proceed with the herbal recommendations? Also, do you experience any side effects from your current supplements? This will help ensure we avoid any potential interactions.



현재까지 진행 상황 :

- Web Claude를 활용하여 결과 도출 및 데이터 정리

앞으로의 작업 계획 :

- API 환경 작업 : API를 통해 서비스에 적합한 형식으로 결과를 도출할 예정이다.
- Few-shot Prompting 활용 : 좋은 예시를 여러 개 포함하여 모델의 정확도를 높이하고자 하며,
(*Few-shot Prompting은 LLM에게 작업을 수행하도록 지시할 때, 작업의 예시 몇 가지를 제공하여 모델의 응답 품질을 높이는 방법이다.)



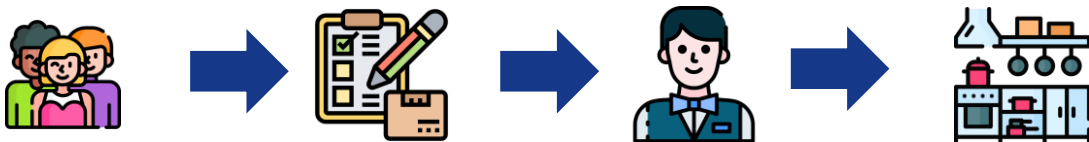
API

API = Application Programming Interface

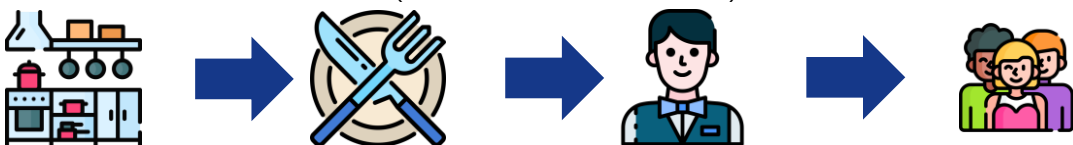
소프트웨어 간의 상호작용을 가능하게 하는 인터페이스로, 특정 기능이나 데이터를 외부 프로그램이 접근하고 사용할 수 있도록 정의된 규칙과 프로토콜의 집합이다.

1. API의 실생활 예시

고객(사용자)이 음식을 주문(요청)하면, 웨이터(API)가 주방(서버)에 요청.



주방에서 음식을 만들어 내주면(API가 응답을 생성하면) 웨이터가 그 음식을 고객에게 전달.



따라서 API는 서로 다른 소프트웨어나 시스템 간의 “중개 역할”을 수행하는 인터페이스라고 정의할 수 있다.

API

2. API를 사용하려면 KEY가 필요하다.

-> KEY는 API를 호출하거나 서비스를 사용하기 위한 인증 수단이다.

예시) API Key는 호텔 방 키와 같다.



3. API를 사용하는 이유.

- Field-S 홈페이지의 인터페이스를 통해 서비스를 제공하기 위해 사용

```
cURL  Python  JavaScript

import { Anthropic } from '@anthropic-ai/sdk';

const anthropic = new Anthropic();

await anthropic.messages.create({
  model: "claude-3-5-sonnet-20241022",
  max_tokens: 1024,
  messages: [
    {"role": "user", "content": "Hello, world"}
  ]
});
```

model string required

- "max_tokens"
- max_tokens

Required string

Example with a single user message:

```
[{"role": "user", "content": "Hello, Claude"}]
```

Example with multiple conversational turns:

```
[
  {"role": "user", "content": "Hello there."},
  {"role": "assistant", "content": "Hi, I'm Claude. How can I help you?"},
  {"role": "user", "content": "Can you explain LLMs in plain English?"},
]
```

LEARN ABOUT CLAUDE

Models

Claude is a family of state-of-the-art large language models developed by Anthropic. This guide introduces our models and compares their performance with legacy models.



Claude 3.5 Haiku



Claude 3.5 Sonnet

Claude 3.5 Haiku

Claude 3 Opus

Claude 3 Sonnet

Claude 3 Haiku

15

4096 tokens

Role Prompting

ANTHROPIC

How to give Claude a role

Use the `system` parameter in the [Messages API](#) to set Claude's role:

```
import anthropic

client = anthropic.Anthropic()

response = client.messages.create(
    model="claude-3-5-sonnet-20241022",
    max_tokens=2048,
    system="You are a seasoned data scientist at a Fortune 500 company.", # <-- role
    messages=[
        {"role": "user", "content": "Analyze this dataset for anomalies: <dataset>"}
    ]
)

print(response.content)
```

💡 Role prompting tip: Experiment with roles! A data scientist might see different insights than a marketing strategist for the same data. A data scientist specializing in customer insight analysis for Fortune 500 companies might yield different results still!

Role Prompting

ANTHROPIC

1. ROLE을 정하지 않은 경우

▼ Financial analysis without role prompting

Role	Content
User	Analyze this dataset of our Q2 financials: <data> {{FINANCIALS}} </data> Highlight key trends and recommend actions.
Assistant	Here's a summary of your Q2 financials: 1. Revenue: \$15.2M, up 22% YoY. Enterprise client base grew 30%. 2. Gross Margin: 72%, up 3% from Q1. 3. EBITDA Margin: 18%, down 2% due to R&D investments. 4. Cash Flow: \$4.1M operating, \$28M in reserves. Overall, financials look strong with revenue growth and healthy margins. Increased R&D spending is impacting profitability but could pay off long-term. Maintain current course.

매출 : \$15.72M, 전년 대비 22%증가. 엔터프라이즈 고객 기반 30% 성장

총 마진 : 72%, 1분기 대비 3% 증가.

EBITDA 마진 : 18%, 연구개발(R&D) 투자로 인해 2% 감소.

현금 흐름 : 운영 현금 \$4.1M, 준비금 \$28M

종합 : 재무 상태는 매출 성장과 건강한 마진 덕분에 양호해 보인다.

R&D 지출이 수익성에 단기적으로 영향을 미치고 있지만 장기적으로는 성과를 낼 가능성이 있다. 현재의 방향을 유지하는 것이 중요하다.

2. ROLE을 지정한 경우

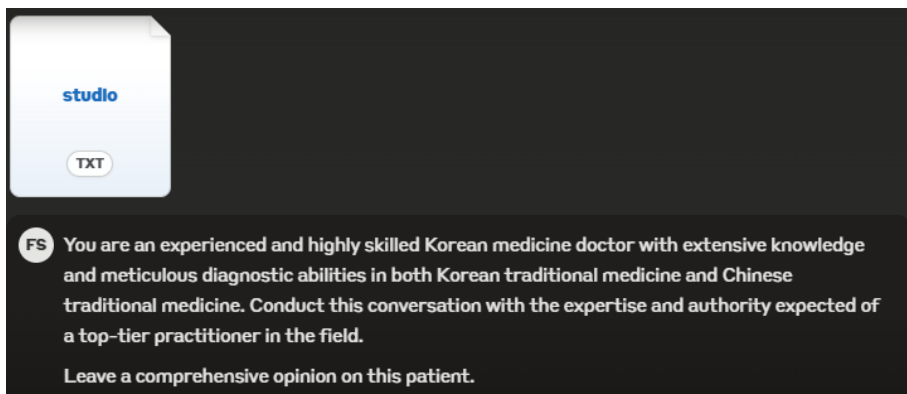
Role	Content
User	You are the CFO of a high-growth B2B SaaS company. We're in a board meeting discussing our Q2 financials: <data> {{FINANCIALS}} </data> Analyze key trends, flag concerns, and recommend strategic actions. Our investors want aggressive growth but are wary of our burn rate.
Assistant	Board members, here's my analysis of our Q2 financials: 1. Revenue (\$15.2M, +22% YoY): - Insight: Enterprise growth (+30%) is outpacing overall growth. - Flag: SMB segment declined 5%. - Action: Reallocate 20% of SMB marketing budget to enterprise sales. Task product to simplify SMB onboarding. 2. Margins (Gross: 72%, +3% QoQ; EBITDA: 18%, -2% QoQ): - Insight: Infrastructure optimizations boosted gross margins. - Flag: R&D spend on AI features dented EBITDA. - Action: No change. Our AI roadmap is critical for enterprise stickiness. 3. Cash (\$4.1M OCF, \$28M reserves): - Insight: 15-month runway at current burn. - Flag: CAC up 20%, eroding LTV/CAC. - Action: Freeze non-essential hires. Implement sales funnel analytics to cut CAC by 15% in Q3. Strategic Stance: We're threading the needle between growth and burn. Enterprise focus is our growth engine—invest there. But watch SMB churn; it could bleed into enterprise. Our AI bet is sound, but we must convert it to ARR by Q4, or we cut R&D by 30%. In sum: Double down on enterprise, streamline SMB, optimize sales, and monetize AI. Questions?



Role Prompting



1. 한의사 역할을 확실하게 준 경우

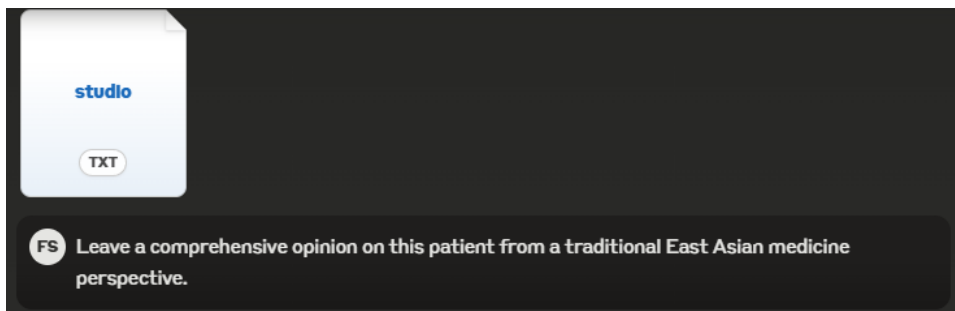


4. 한의학적 분석: 한의학적 관점에서 다음과 같은 상태가 관찰됩니다:
- 심간(心肝)의 기(氣) 부조화 가능성 (심장 병력과 이전 간 질환으로 추정)
 - 신(神)의 불안정성 (스트레스 시 불안)
 - 비교적 양호한 비기(脾氣) (좋은 소화력과 운동선수형 체격)
 - 경미한 신음허(腎陰虛) 가능성 (기력 변동)

권장 사항:

1. 고려할 만한 한약재:
- 단삼(丹蔘) - 심장 기능과 혈액순환 지원
 - 하수오(何首烏) - 간 기능과 정기(精氣) 보강
 - 백자인(柏子仁) -安神(安神)과 수면의 질 개선
 - 황기(黃芪) - 기(氣)를 강화하고 면역력 증진

2. 한의사 역할을 주지않고 한의학 관점에서 분석해달라고 한 경우



치료 원칙:

1. 심기(心氣) 조절과 조화
2. 간기(肝氣) 순환 촉진과 정체 해소
3. 혈(血)을 보충하고 순환 촉진
4. 신정(腎精) 보강
5. 신(神) 안정

04

서비스 개발 프로세스



서비스 개발 프로세스



1. API Output Format 설정

- > 개발자와 협업하여 API를 통해 받을 JSON 형식 정의
- > 원하는 형식으로 데이터가 일관되게 출력되도록 사전 설계

2. 데이터베이스 저장 테스트

- > API에서 받은 데이터를 DB에 저장할 때 올바른 형식으로 입력되는지 검증

3. Few-Shot Prompting을 위한 예제 생성 및 검증

- > 예제 데이터 기반으로 API호출 후 결과 비교

4. 답변 일관성 확인

- > Prompt Engineering을 통해 변동성을 최소화

5. 기타 디자인 및 최적화

- > UI/UX 개선을 위한 출력 디자인(가독성 높은 포맷)적용

The screenshot displays the Django administration interface for a chat application. On the left, a sidebar menu lists various models: ACCOUNTS, Users, ADDRESS, Address, BODYs, Body, CARTs, Cart items, Carts, and CHAT. The main content area is titled 'Select chat message to change' and shows a table of chat messages. The table has columns for 'CHAT MESSAGE', 'THREAD', 'SENDER', and 'MESSAGE'. Two messages are listed, both from 'user01, Claude'. The first message is a long text about traditional Korean and Chinese herbal medicine. The second message is a shorter text about the user's role as an AI assistant. Below the table, there is a 'temperature' slider control with a 'number' input field. The slider is set to 1.0, and the text indicates that the range is from 0.0 to 1.0, with 0.0 being analytical and 1.0 being creative. A note states that even with a temperature of 0.0, the results will not be fully deterministic. The required range is given as 0 < x < 1.





THANK YOU