Task Completion for Zocket.ai

1 . Research and analysis :-

Tool	Features	Use Cases	Limitations
ChatGPT	Memory, versatile, privacy controls	Customer support, coding assistance, creative writing	Limited real-time data, lacks deep long-term memory
Claude	Privacy-first, workspace search, upcoming voice support	Enterprise-level support, real-time research assistance	Limited creative tasks, dependent on available data
Perplexity	Real-time conversational search, mobile integration	Quick research, on-the-go info, integration in smartphones	Limited in creative or complex multi-step tasks

2 . Understanding AI Agents:

What are AI Agents? AI agents are autonomous systems that use artificial intelligence to perceive their environment, make decisions, and take actions to achieve specific goals. They are important for automating complex tasks, improving efficiency, and solving real-world problems across various industries like healthcare, finance, and customer service.

Essential Components of an AI Agent:

1. **Data Processing**: Gathering and filtering data from the environment.
2. **Decision-Making**: Using algorithms to analyze data and make decisions (e.g., machine learning, reasoning).
3. **Action Execution**: Performing actions based on decisions (e.g., controlling robots, sending recommendations), with feedback for improvement.

Steps to Design and Implement an AI Agent:

1. **Define Task & Objectives**: Clearly state the problem and goals.
2. **Choose Agent Type**: Select whether the agent will be reactive, deliberative, or hybrid.
3. **Data Collection**: Design how the agent will gather and preprocess data.
4. **Decision-Making**: Choose algorithms and models for decision-making and learning.
5. **Action Execution**: Plan how actions will be executed and tested.
6. **Feedback Mechanisms**: Monitor performance and allow continuous learning.
7. **Deployment & Maintenance**: Deploy the agent and regularly update it based on new data or tasks.

In essence, AI agents enable automation and problem-solving by processing data, making decisions, and taking actions. Their design involves carefully considering the task, data, algorithms, and real-time feedback for improvement.
4o mini

3. Practical Implementation:

AI Model for Web Data Extraction and Summarization

This AI model is designed to efficiently extract and summarize web data using the following workflow:

1. **URL Input**: The model first prompts the user to provide a valid URL.
2. **Web Scraping**: Upon receiving the URL, the model uses the requests library to fetch the content of the webpage, and BeautifulSoup to parse and extract the relevant data from the page.
3. **Text Summarization**: After extracting the text, the model utilizes **DistilBERT** (a Bidirectional Auto-regressive Transformer) to summarize the content. DistilBERT is known for its efficiency in both long and short text summarization.

Advantages:

- **No Third-Party APIs**: This solution does not rely on external APIs, ensuring complete control over the process.
- **Fast Response**: The model delivers fast results due to its streamlined workflow.
- **Efficient Summarization**: DistilBERT is well-suited for high-quality text summarization, providing clear, concise summaries of the extracted data.

Working with one same use case:

```
import requests as r
from bs4 import BeautifulSoup as b
from transformers import pipeline as p
su = p("summarization", model="sshleifer/distilbart-cnn-12-6")

a = 'https://en.wikipedia.org/wiki/Wikipedia:About'
print(a)
d = r.get(a)
print(d)
da = b(d.content,'html.parser')
s = ''
for i in da.find_all('p'):
    s += i.text
print('Response Data :-')
print(s)
print()
ans = su(s, max_length=120, min_length=30, do_sample=False)
print("Summary Data :-")
print()
print(ans[0]['summary_text'])
```

```
Device set to use cpu
https://en.wikipedia.org/wiki/Wikipedia:About
<Response [200]>
Response Data :-


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Summary Data :-

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By :

Name : Pragateesh G
Roll No :22AD068
Dept : AI-DS