Search Tools

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This notebook shows off usage of various search tools.

```python
from langchain.agents import load_tools
from langchain.agents import initialize_agent
from langchain.llms import OpenAI
```

```python
llm = OpenAI(temperature=0)
```

Google Serper API Wrapper

First, let's try to use the Google Serper API tool.

```python
tools = load_tools(["google-serper"], llm=llm)
```

```python
agent = initialize_agent(tools, llm, agent="zero-shot-react-description",
verbose=True)
```

```python
agent.run("What is the weather in Pomfret?")
```

> Entering new AgentExecutor chain...

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```
Action Input: "weather in Pomfret"
Observation: 37°F
Thought: I now know the current temperature in Pomfret.
Final Answer: The current temperature in Pomfret is 37°F.
```

```
> Finished chain.
```

```
'The current temperature in Pomfret is 37°F.'
```

SerpAPI

Now, let's use the SerpAPI tool.

```
tools = load_tools(["serpapi"], llm=llm)
```

```
agent = initialize_agent(tools, llm, agent="zero-shot-react-description",
verbose=True)
```

```
agent.run("What is the weather in Pomfret?")
```

```
> Entering new AgentExecutor chain...
 I need to find out what the current weather is in Pomfret.
Action: Search
Action Input: "weather in Pomfret"
Observation: Partly cloudy skies during the morning hours will give way to cloudy
skies with light rain and snow developing in the afternoon. High 42F. Winds WNW at
10 to 15 ...
Thought: I now know the current weather in Pomfret.
Final Answer: Partly cloudy skies during the morning hours will give way to cloudy
skies with light rain and snow developing in the afternoon. High 42F. Winds WNW at
10 to 15 mph.

> Finished chain.
```

```
'Partly cloudy skies during the morning hours will give way to cloudy skies with
light rain and snow developing in the afternoon. High 42F. Winds WNW at 10 to 15
mph.'
```

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GoogleSearchAPIWrapper

Now, let's use the official Google Search API Wrapper.

```
tools = load_tools(["google-search"], llm=llm)
```

```
agent = initialize_agent(tools, llm, agent="zero-shot-react-description",
verbose=True)
```

```
agent.run("What is the weather in Pomfret?")
```

> Entering new AgentExecutor chain...
 I should look up the current weather conditions.
Action: Google Search
Action Input: "weather in Pomfret"
Observation: Showers early becoming a steady light rain later in the day. Near
record high temperatures. High around 60F. Winds SW at 10 to 15 mph. Chance of
rain 60%. Pomfret, CT Weather Forecast, with current conditions, wind, air
quality, and what to expect for the next 3 days. Hourly Weather-Pomfret, CT. As of
12:52 am EST. Special Weather Statement +2 ... Hazardous Weather Conditions.
Special Weather Statement ... Pomfret CT. Tonight ... National Digital Forecast
Database Maximum Temperature Forecast. Pomfret Center Weather Forecasts. Weather
Underground provides local & long-range weather forecasts, weatherreports, maps &
tropical weather conditions for ... Pomfret, CT 12 hour by hour weather forecast
includes precipitation, temperatures, sky conditions, rain chance, dew-point,
relative humidity, wind direction ... North Pomfret Weather Forecasts. Weather
Underground provides local & long-range weather forecasts, weatherreports, maps &
tropical weather conditions for ... Today's Weather - Pomfret, CT. Dec 31, 2022
4:00 PM. Putnam MS. --. Weather forecast icon. Feels like --. Hi --. Lo --.
Pomfret, CT temperature trend for the next 14 Days. Find daytime highs and
nighttime lows from TheWeatherNetwork.com. Pomfret, MD Weather Forecast Date: 332
PM EST Wed Dec 28 2022. The area/counties/county of: Charles, including the cites
of: St. Charles and Waldorf.
Thought: I now know the current weather conditions in Pomfret.
Final Answer: Showers early becoming a steady light rain later in the day. Near
record high temperatures. High around 60F. Winds SW at 10 to 15 mph. Chance of
rain 60%.
> Finished AgentExecutor chain.

'Showers early becoming a steady light rain later in the day. Near record high
temperatures. High around 60F. Winds SW at 10 to 15 mph. Chance of rain 60%.'

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SearxNG Meta Search Engine

Here we will be using a self hosted SearxNG meta search engine.

```
tools = load_tools(["searx-search"], searx_host="http://localhost:8888", llm=llm)
```

```
agent = initialize_agent(tools, llm, agent="zero-shot-react-description",
verbose=True)
```

```
agent.run("What is the weather in Pomfret")
```

```
> Entering new AgentExecutor chain...
 I should look up the current weather
Action: SearX Search
Action Input: "weather in Pomfret"
Observation: Mainly cloudy with snow showers around in the morning. High around
40F. Winds NNW at 5 to 10 mph. Chance of snow 40%. Snow accumulations less than
one inch.

10 Day Weather - Pomfret, MD As of 1:37 pm EST Today 49°/ 41° 52% Mon 27 | Day 49°
52% SE 14 mph Cloudy with occasional rain showers. High 49F. Winds SE at 10 to 20
mph. Chance of rain 50%....

10 Day Weather - Pomfret, VT As of 3:51 am EST Special Weather Statement Today
39°/ 32° 37% Wed 01 | Day 39° 37% NE 4 mph Cloudy with snow showers developing for
the afternoon. High 39F....

Pomfret, CT ; Current Weather. 1:06 AM. 35°F · RealFeel® 32° ; TODAY'S WEATHER
FORECAST. 3/3. 44°Hi. RealFeel® 50° ; TONIGHT'S WEATHER FORECAST. 3/3. 32°Lo.

Pomfret, MD Forecast Today Hourly Daily Morning 41° 1% Afternoon 43° 0% Evening
35° 3% Overnight 34° 2% Don't Miss Finally, Here's Why We Get More Colds and Flu
When It's Cold Coast-To-Coast...

Pomfret, MD Weather Forecast | AccuWeather Current Weather 5:35 PM 35° F RealFeel®
36° RealFeel Shade™ 36° Air Quality Excellent Wind E 3 mph Wind Gusts 5 mph Cloudy
More Details WinterCast...

Pomfret, VT Weather Forecast | AccuWeather Current Weather 11:21 AM 23° F
RealFeel® 27° RealFeel Shade™ 25° Air Quality Fair Wind ESE 3 mph Wind Gusts 7 mph
Cloudy More Details WinterCast...

Pomfret Center, CT Weather Forecast | AccuWeather Daily Current Weather 6:50 PM
```

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12:00 pm · Feels Like36° · WindN 5 mph · Humidity43% · UV Index3 of 10 · Cloud
Cover65% · Rain Amount0 in ...

Pomfret Center, CT Weather Conditions | Weather Underground star Popular Cities
San Francisco, CA 49 °F Clear Manhattan, NY 37 °F Fair Schiller Park, IL (60176)
warning39 °F Mostly Cloudy...
Thought: I now know the final answer
Final Answer: The current weather in Pomfret is mainly cloudy with snow showers
around in the morning. The temperature is around 40F with winds NNW at 5 to 10
mph. Chance of snow is 40%.

> Finished chain.

'The current weather in Pomfret is mainly cloudy with snow showers around in the
morning. The temperature is around 40F with winds NNW at 5 to 10 mph. Chance of
snow is 40%.'