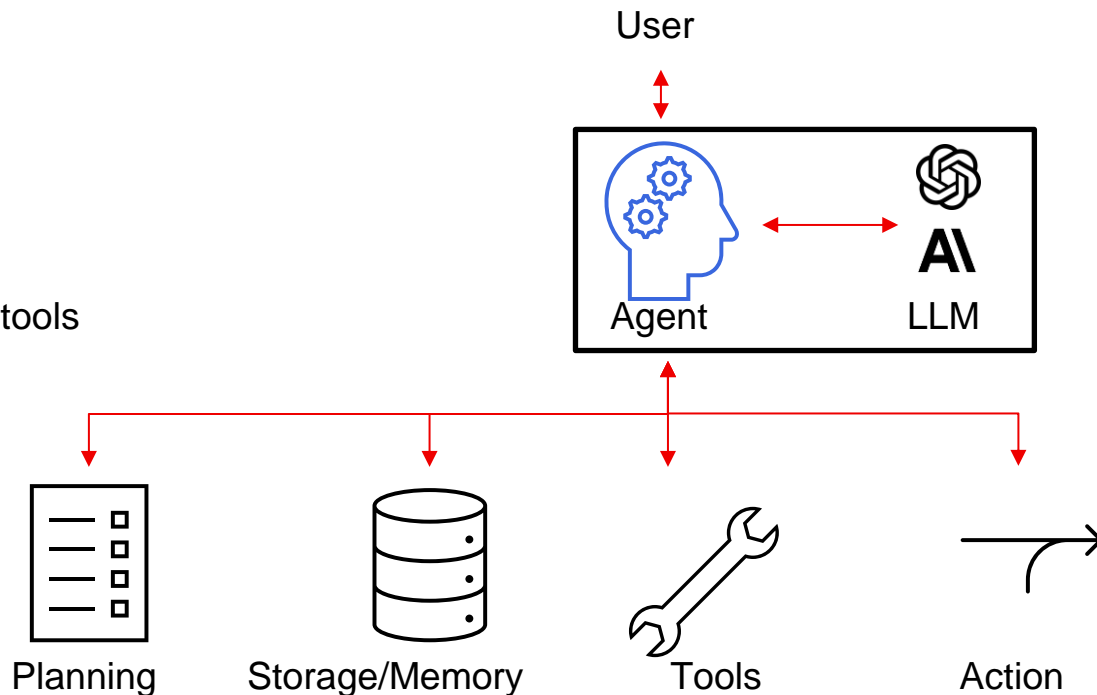# Learning Objectives

By the end of this module, you will:

- Know what agents are and how crewai works

What is an agent?

- LLM apps execute tasks

- Core element: agent

- Uses planning, memory, and tools

- Can perform actions

- Acts as an expert in its field

User

Agent | LLM

Planning   Storage/Memory   Tools   Action

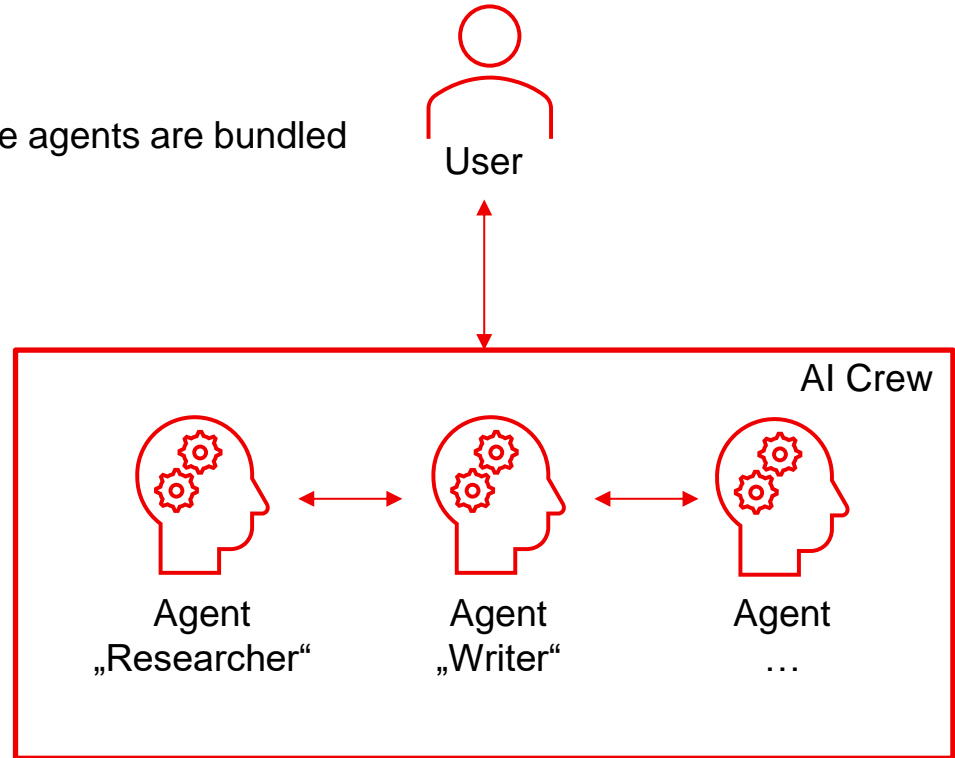# Framework Used: crewai

crewai

- Very simple to use

- Powerful interaction of agents

- Many features

Source: crewai.com

What is an AI crew?

- Concept extremely powerful when multiple agents are bundled
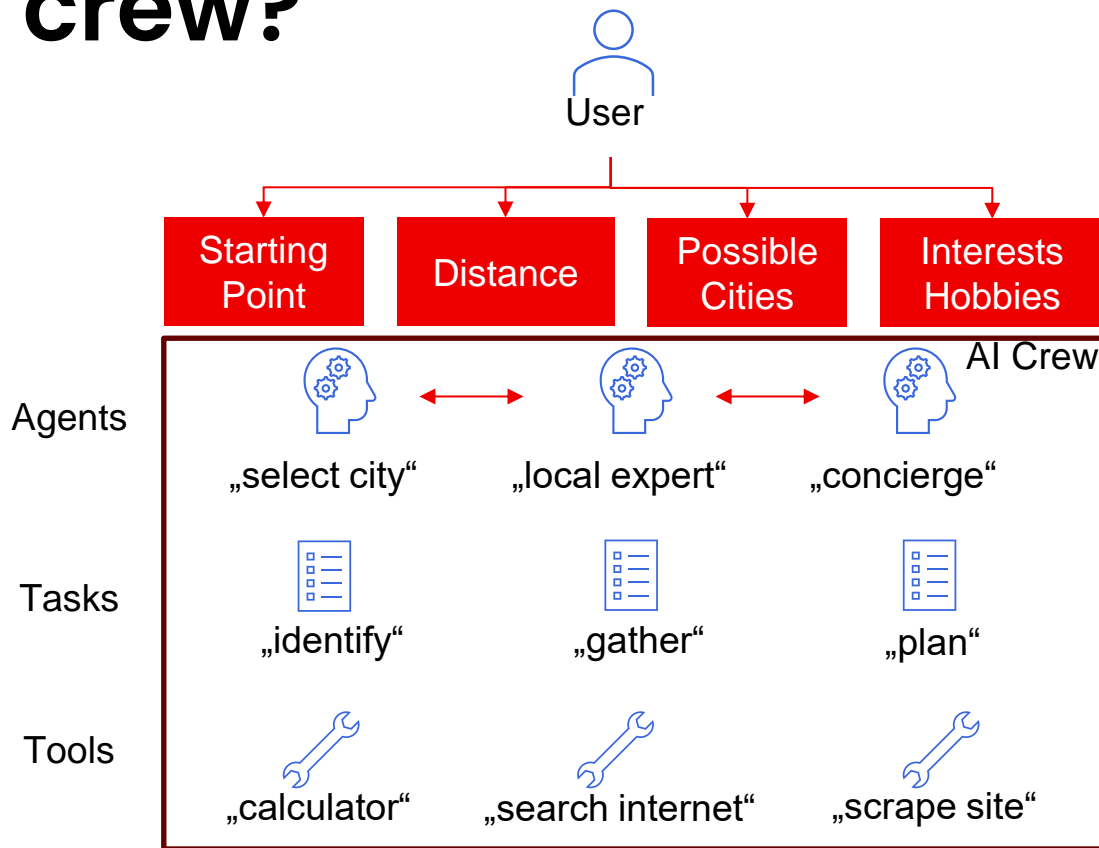
- System of experts

What is an AI crew?

1. Define Goal

2. User Inputs

3. Set up

- agents

- tasks

- if needed: tools, process, …

Idea found at
https://github.com/joaomdmoura/
crewAI-examples

User

| Starting Point | Distance | Possible Cities | Interests Hobbies |

AI Crew

Agents — „select city"   „local expert"   „concierge"

Tasks — „identify"   „gather"   „plan"

Tools — „calculator"   „search internet"   „scrape site"

Example: Plan Vacations - Agents

	"select city"	"local expert"	"concierge"
Agents	⚙️	⚙️	⚙️
Role	City Selection Expert	Local Expert	Travel Concierge
Goal	select city based on weather, season, prices	provide insights about selected city	Create travel itineraries with budget and packing suggestions
Backstory	You are an expert in analyzing travel data to pick the best destination.	You are a knowledgeable local guide with extensive knowledge about the city.	specialist in travel planning and logistics
Tasks	"identify"	"gather"	"plan"

Example: Plan Vacations - Tasks

Tasks

„identify"   „gather"   „plan"

Description

...   .

Example: Plan Vacations - Tools

Searching the Internet

Scraping Websites

Reading Files

Tool	Description
CodeDocsSearchTool	A RAG tool optimized for searching through code documentation and related technical documents.
CSVSearchTool	A RAG tool designed for searching within CSV files, tailored to handle structured data.
DirectorySearchTool	A RAG tool for searching within directories, useful for navigating through file systems.
DOCXSearchTool	A RAG tool aimed at searching within DOCX documents, ideal for processing Word files.
DirectoryReadTool	Facilitates reading and processing of directory structures and their contents.
FileReadTool	Enables reading and extracting data from files, supporting various file formats.
GithubSearchTool	A RAG tool for searching within GitHub repositories, useful for code and documentation search.
SerperDevTool	A specialized tool for development purposes, with specific functionalities under development.
TXTSearchTool	A RAG tool focused on searching within text (.txt) files, suitable for unstructured data.

…

Source: https://docs.crewai.com/core-concepts/Tools/#available-crewai-tools