Langchain - Terminologies

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- **Prompt template**: It wrapper class around a prompt, so it adds functionality to prompt to receive an input
- **Chat Model**: Wrappers around LLM's that help us interact with them in chat messages
- **Chain**: They allow us to combine multiple component together and bring a single co-herient application, it helps in connecting with agent's as well
- **Open source model:** lighter models don't perform well in the reasoning process.
- **Ollama** : Deploying the open source models in our computer, whichis a company that specializes in developing and providing tools for us to build and deploy Llms in our local machines.
- **Output parser:** It helps us parse the output of an LLM

When to use which Model:
- OpenAi / Claude : for logical reasoning capabilities tier-1 Models
- Mistral : for write songs
- Llama3 : alternate for local model for chat

In open source model's has difficult over tier-1 models because deploying a model in production is actually quite hard and we need to handle availability, scalability, durability, and all of this.

Agent: Basically the engine of the agent is an LLM. So once we give the task to the agent the first thing it does it calculates what subtasks you need to perform in order to achieve and to complete the big task that we sent it.
Now to answer these questions, to break down to subtasks is something that is totally capable by the LLMs

there is something which is called the chain of thought. And basically it's a prompt engineering technique which allows the LLM to reason and to show us its reasoning. So it can help us solve some very cool problems. And this is what the agent is actually doing right now. But it's not only that because once it lists its subtasks that it needs to perform, the agent has the ability to make the external calls to a database or to search something online. It has the abilities to perform those subtasks. So once it completes those subtasks, it can return us the answer that we want.

	React	Function call / tool calling
Responsibility to select the tools	On us. Its based on react prompt well written by that langchain team wrote, it has chain of thought, infusion prompting..	Is on vendor side
Flexibility	Can be customized on top of this prompt	Not that much