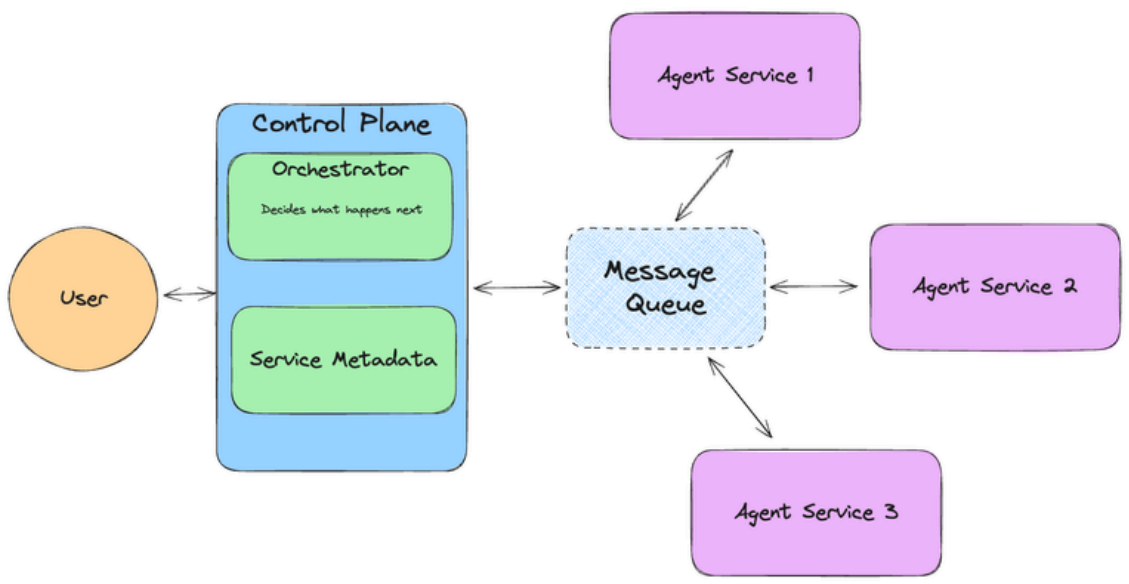
Analytics Vidhya

What you can do with **AI Agents**

An “agent” is like a smart assistant who can think and make decisions independently.



The overall system layout of Llama-Agents

These tasks can range from simple, repetitive actions to complex workflows that require decision-making and adaptation. Here’s a detailed breakdown of what you can automate with agents:

Data Collection and Analysis

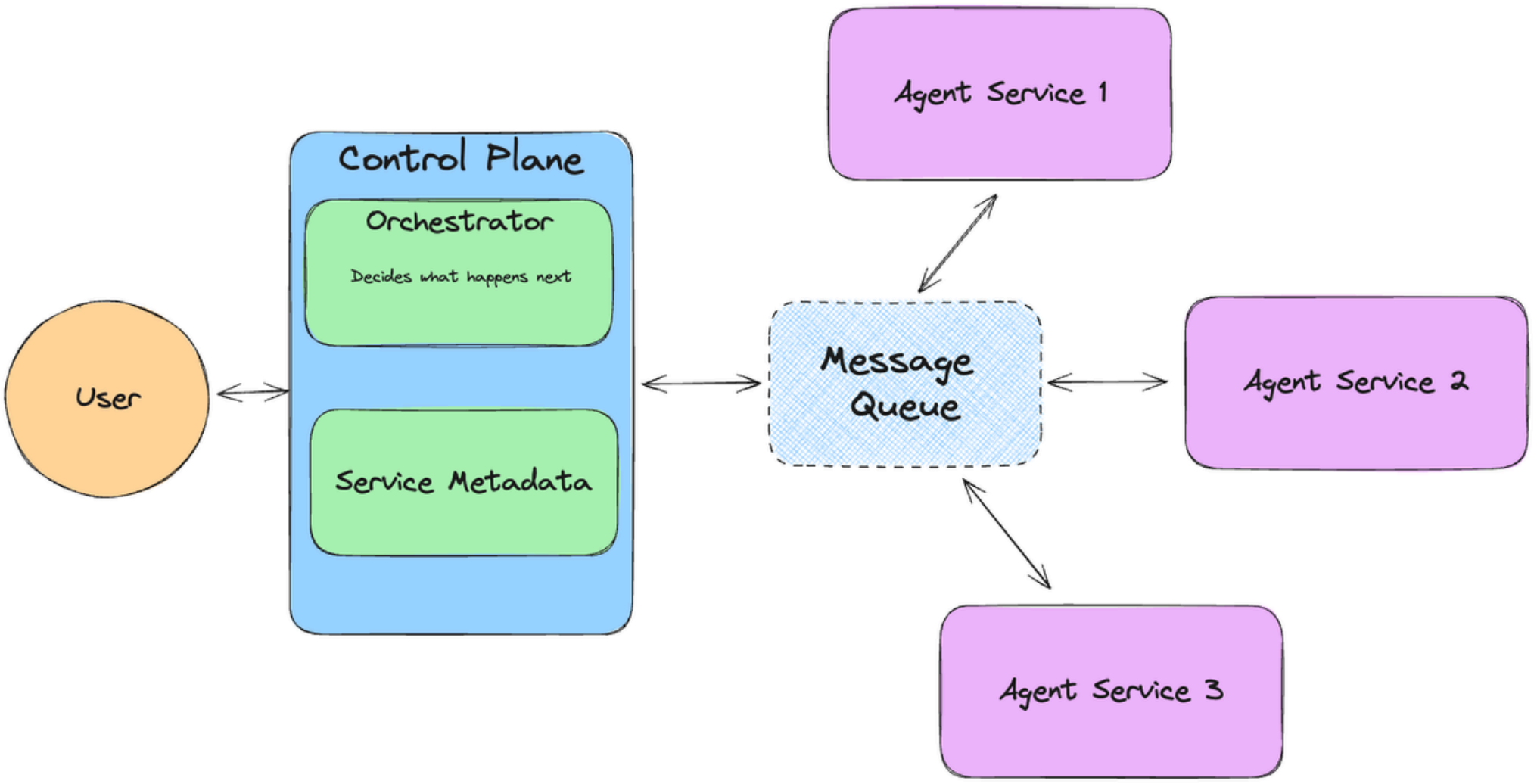
Agents can automatically gather data from various sources, such as websites, APIs, databases, or even documents. They can:

- **Web Scraping**: Extract data from websites to monitor prices, track competitors, or aggregate news.

- **Data Integration**: Collect and combine data from multiple databases or APIs into a single, unified dataset.

- **Real-Time Analytics**: Continuously analyze incoming data to identify trends, anomalies, or important metrics.

Components of a Llama-agents



In Llama-agents, several key components make up the overall system:

- **Message queue**: The message queue acts as a queue for all services and the control plane. It has publishing methods to name queues and delegate messages to consumers.

- **Control plane**: The control plane is the central gateway to the llama-agents system. It tracks current tasks and services registered to the system and holds the orchestrator.

Components of a Llama-agents

- **Orchestrator**: The module handles incoming tasks and decides what service to send them to and how to handle results from services. An orchestrator can be agentic (with an LLM making decisions), explicit (with a query pipeline defining a flow), a mix of both, or completely custom.

- **Services**: Services are where the actual work happens. A service accepts some incoming task and context, processes it, and publishes a result

- **Agent Service**: A tool service is a special service used to offload the computation of agent tools. Agents can instead be equipped with a meta-tool that calls the tool service.

Key Features of `Llama-agents’

Here are the key features of Llama-agents:

- **Distributed Architecture**: Each agent operates as an independent microservice.
- **Standardized Communication**: Seamless interaction through a central control plane.
- **Flexible Orchestration**: Define explicit flows or rely on our smart orchestrator.
- **Easy Deployment**: Effortlessly launch, scale, and monitor agents.
- **Scalable Performance**: Monitor system and agent performance with our observability tools.