

# BUILDING YOUR FIRST AGENT

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Step-by-step guide to creating an intelligent agent



# INTRODUCTION AND AGENDA



# SESSION OVERVIEW AND AGENDA



## **Understanding LLM Agents**

Learn the basics of Large Language Model agents and their functions in modern applications.

## **Agent Creation and Setup**

Create a simple agent by defining instructions and goals to guide its behavior.

## **Running and Testing Locally**

Run the agent locally and test its performance via command line interface for practical insights.

## **Session Wrap-up and Q&A**

Discuss key takeaways and address participant questions to consolidate understanding.

# UNDERSTANDING LLM AGENTS



# WHAT IS AN LLM AGENT?



## Definition of LLM Agent

An LLM Agent is an AI powered by a Large Language Model that reasons, plans, and acts on instructions.

## Core Component in Development

LLM Agents serve as the core in development kits, enabling creation of intelligent workflows for developers.

## Interaction and Task Execution

These agents follow instructions, use tools, and interact with systems to accomplish complex tasks efficiently.

## Foundation for Complex Systems

LLM Agents form the base for building complex agentic architectures and multi-agent AI systems.

# CREATING A SIMPLE LLM AGENT



A woman with dark hair and glasses, wearing a grey button-down shirt, is pointing her right index finger towards a vertical list of numbers on the left. The numbers are arranged in two columns, with some numbers highlighted in red. The background is white.

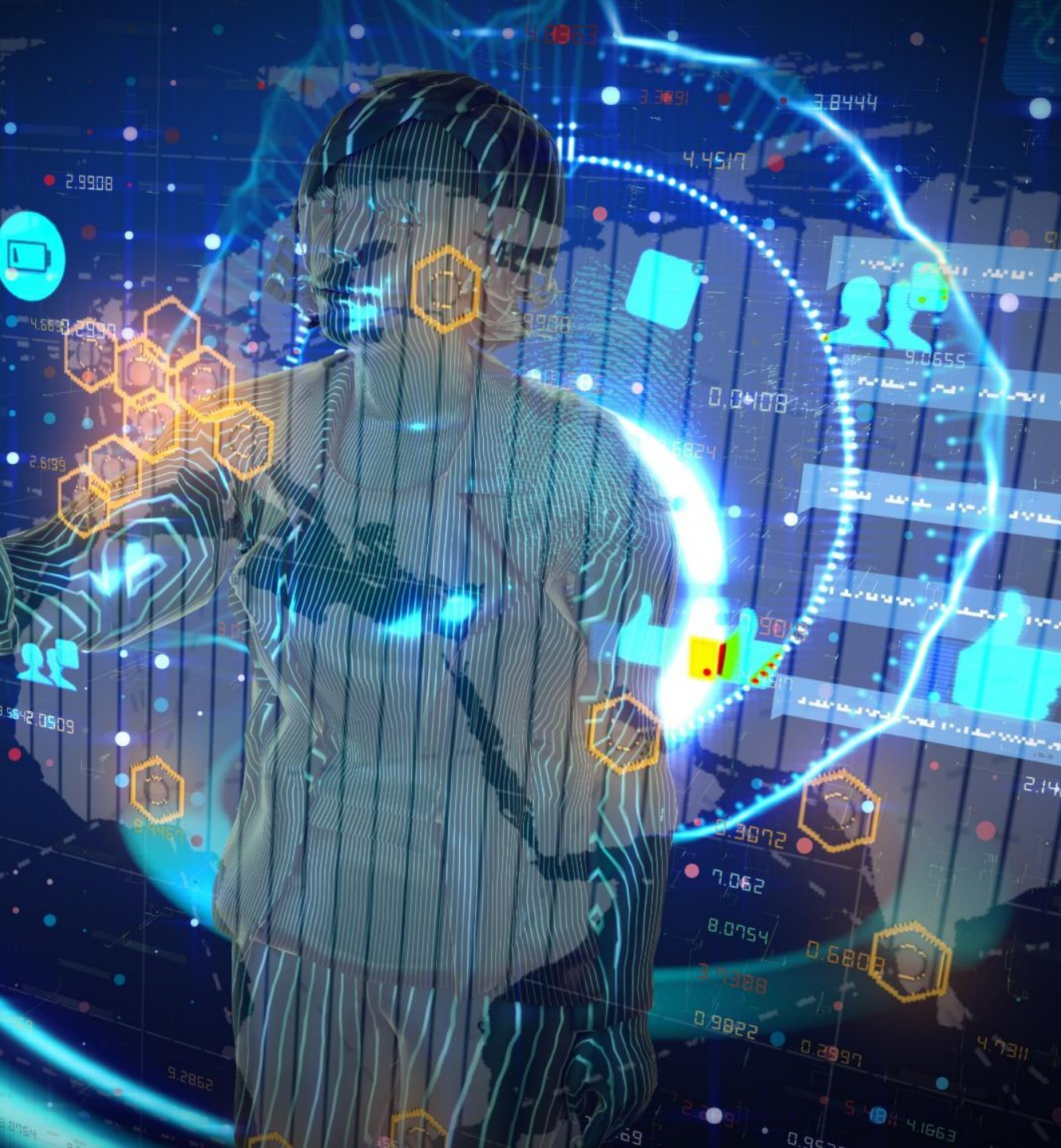
Begin by installing the ADK package using the pip install command to access LLM Agent features.

Import the LlmAgent class into your Python script to start developing your agent.

Create an agent instance with basic instructions to behave as a helpful assistant for testing.

# DEFINING INSTRUCTIONS AND GOALS





# ROLE OF INSTRUCTIONS AND GOALS

## Instructions Define Behavior

Instructions shape the agent's personality and guide how it interacts with users effectively.

## Goals Specify Tasks

Goals set clear tasks for the agent, enabling focused responses and multi-step reasoning.

## Enhanced Agent Effectiveness

Combining instructions and goals allows structured, effective task execution in real-world scenarios.

# RUNNING AND TESTING THE AGENT





# RUN LOCALLY AND TEST IN CLI

## Local Agent Execution

Use the command ``adk run`` to start the agent locally and interact with it via CLI for immediate testing.

## Graphical Interface Option

For a graphical user interface, launch the web UI with the command ``adk web`` to interact visually.

## Benefits of CLI Testing

Testing in CLI allows fast response validation and debugging before production deployment to ensure reliability.

# KEY TAKEAWAYS AND HANDS-ON EXERCISE

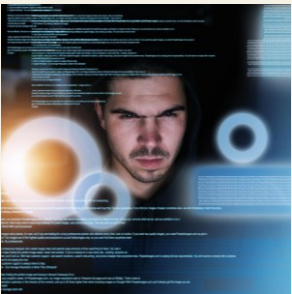


# SUMMARY AND PRACTICE



## Understanding LLM Agents

Learn the role of LLM Agents and how instructions and goals influence their behavior and functionality.



## Running and Testing Agents

Explore the process of running and testing LLM Agents locally to validate their performance and behavior.



## Hands-on Practice Exercise

Participants create a custom LLM Agent with instructions and goals, run it, and share their experiences.