# Aitalk --explain-X Feature Documentation

This document provides a comprehensive overview of the aitalk --explain-X feature, designed to simplify the understanding of recent shell commands and their outputs. By leveraging AI, users can receive clear explanations of their terminal activities, making it easier to learn and troubleshoot. This feature is particularly useful for both novice and experienced users who want to gain insights into their command-line interactions.

### **Aitalk Feature Explanation Process Aitalk Feature AI Explanation User Executes Command Activated Generated** The AI creates a The Aitalk feature is The user enters a **Explanation Command Command** clear explanation of command in the initiated to explain the command and its **Output Displayed Parsed** terminal. the command. output. **Generated** The command is The user receives analyzed to the explanation on The terminal understand its their screen. displays the output structure. of the command.

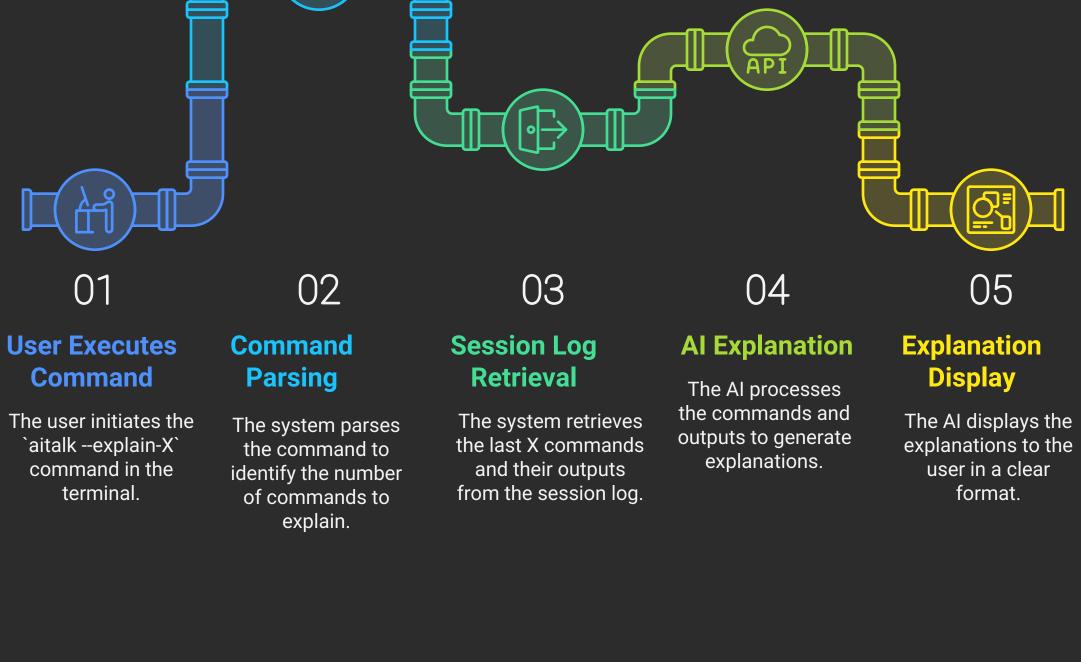
# their outputs from their terminal session log using AI, making it easy to understand what

Purpose

happened in their shell.

**AI-Powered Shell Command Explanation** 

The aitalk --explain-X command allows users to explain the last X shell commands and



# aitalk --explain-5

How It Works

script ~/aitalk\_session.log

**No Session Log** 

🏥 Usage

To use the feature, simply run the command:

**Al Explanation Hierarchy** 

## Command likely requests specific topic analysis

User gains deeper insights into subject matter

**Session Log** 

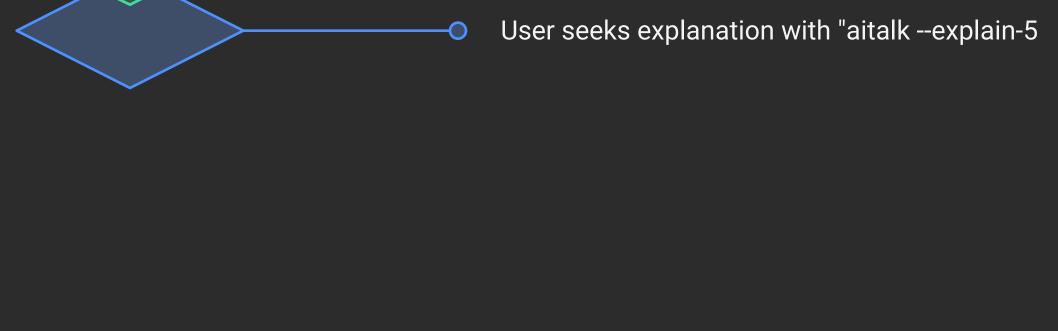
Receive

Explanation

receives a step-

The tool

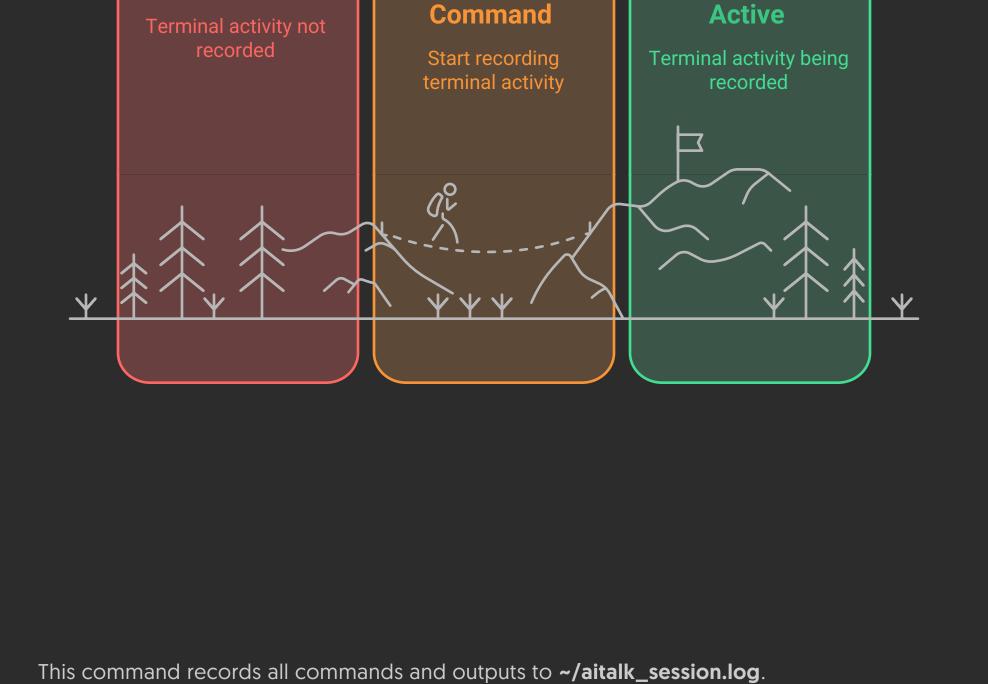
by-step



This command will explain the last 5 commands and their outputs from your session log.

**Session Logging** To utilize this feature, you need to start your terminal session with logging enabled:

## **Start Terminal Session Recording**



**Run Script** 

aitalk Tool Execution Sequence

When you run aitalk --explain-X, the tool performs the following steps:

3. Sends them to the Groq LLM for a step-by-step explanation.

2. Finds the last X commands (and their outputs).

log file to

gather data.

**Command Parsing** 

1. Reads the log file.

Read Log File Find Last X Send to Groq Commands

commands and

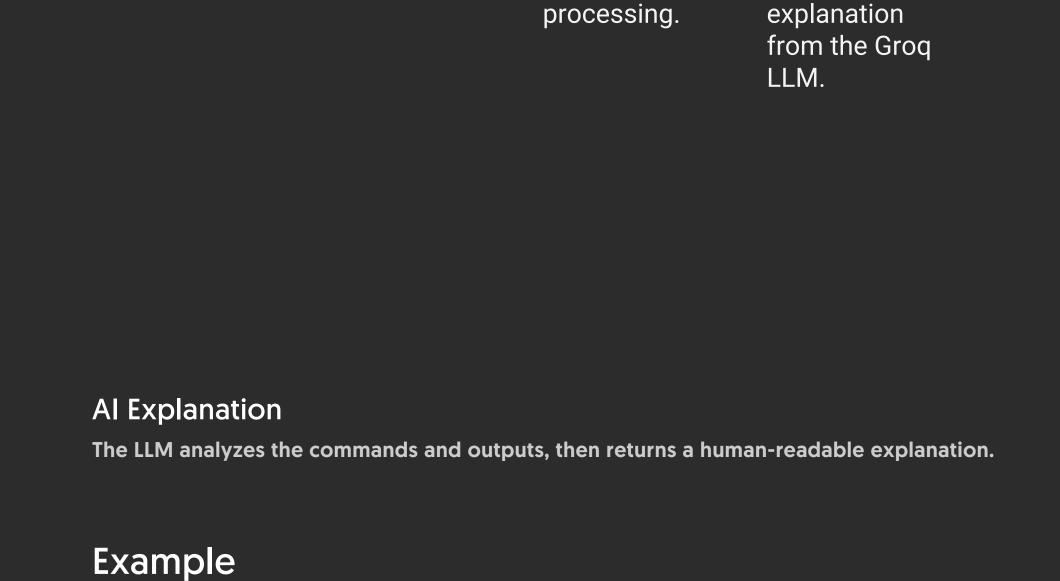
their outputs.

### LLM The tool starts The tool by reading the The commands identifies the last X

and outputs are

sent to the Groq

LLM for



## \$ git status On branch main nothing to commit, working tree clean \$ echo "done" done

**Running:** 

\$ 1s

Suppose your session log contains:

file1.txt file2.txt

\$ cat file1.txt

\$ rm file2.txt

Hello World

aitalk --explain-3 Might produce: ----- LLM Explanation -----

3. git status: Shows the current git branch and confirms there are no changes to

Analyze

Is there a

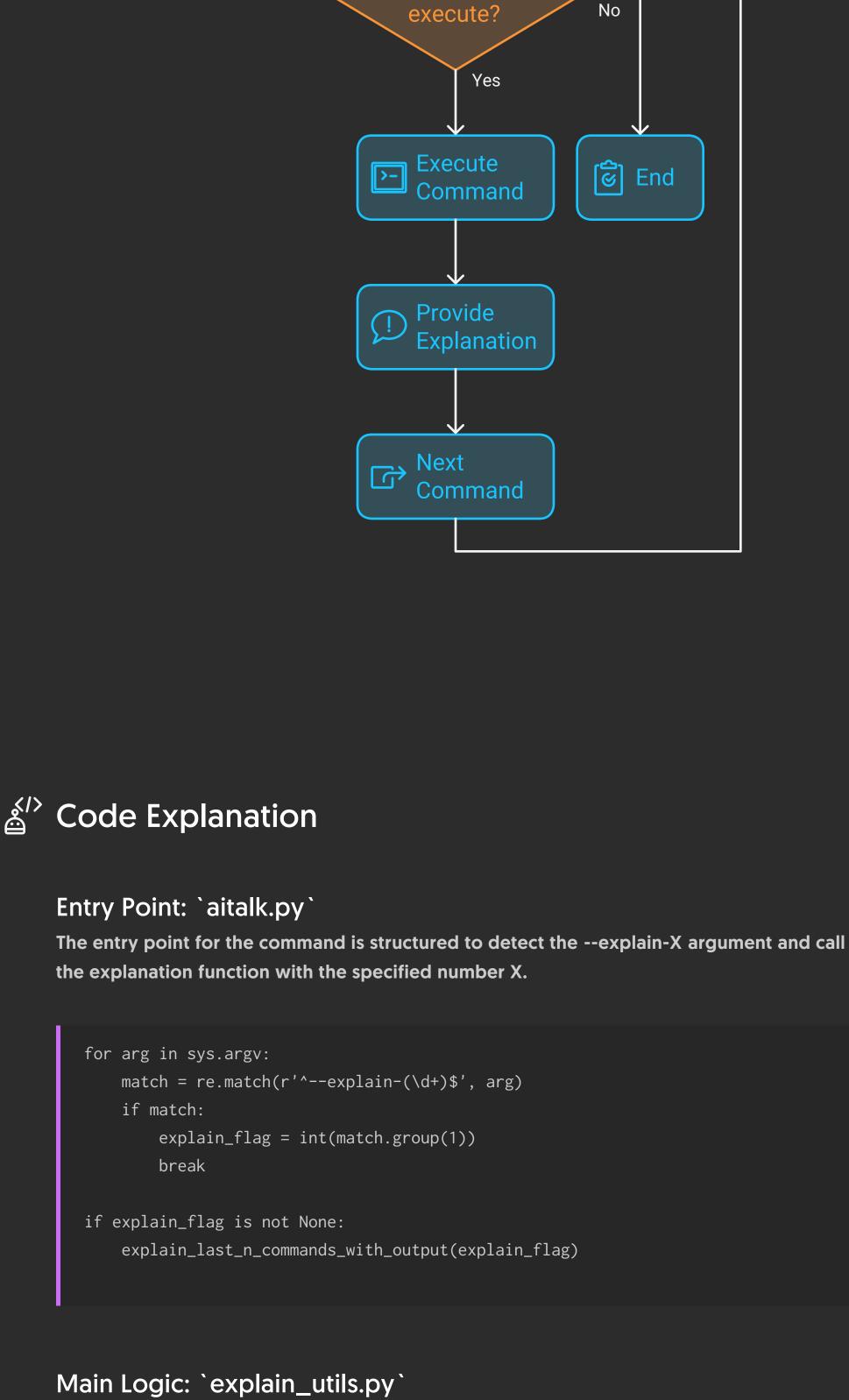
command to

**LLM Explanation of Command Execution** 

1. cat file1.txt: Displays the contents of file1.txt, which is "Hello World".

2. rm file2.txt: Deletes file2.txt from the directory.

commit.



## def explain\_last\_n\_commands\_with\_output(n, log\_path=os.path.expanduser('~/aitalk\_session.log')): if not os.path.exists(log\_path): print(f"X Log file not found: {log\_path}") print("Tip: Start your terminal session with: script

~/aitalk\_session.log")

return

with open(log\_path, 'r') as f:

lines = f.readlines()

Argument

**Explanation Output** 

if match:

# Logic to process the log file and extract commands... This function: 1. Reads the log file. 2. Finds the last N commands and their outputs. 3. Builds a prompt for the LLM. 4. Calls the Groq API for an explanation. 5. Prints the explanation in a readable format. **Command Explanation Process Funnel Command Line** 

**Argument Detection** 

the explanation flag

**Log File Check** 

**Log File Reading** 

commands

Reads the log file to extract

**Command Extraction** 

and their outputs

**Prompt Building** 

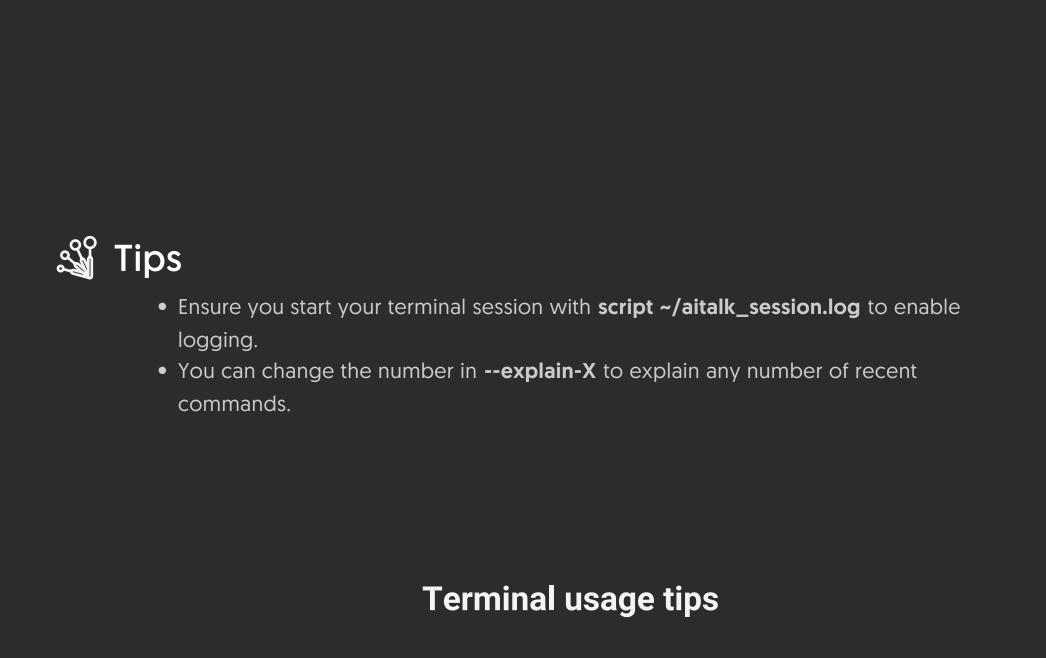
Extracts the last N commands

Script identifies and extracts

Verifies the existence of the log

The main logic for explaining the commands is encapsulated in the following function:

## Constructs a prompt for the LLM with extracted commands **API Call** Calls the Groq API to get explanations



**Start Logging** 

specify command.

Use --explain-X to understand

recent commands. Adjust X to

Start terminal session with

commands and outputs.

**Explain Commands** 

logging enabled. This captures