

# 🌟 Gemini CLI — Built-in Tools (Summary)

## ♦ What is Gemini CLI?

- An **AI-powered terminal assistant** by Google Gemini.
  - It can **interact with your local environment**, access the internet, and **perform actions beyond text generation**.
  - Think of it like: “ChatGPT + command line + automation.”
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## 🧰 Purpose of Built-in Tools

- Help Gemini interact with:
    - **Local system:** Read/write files, list folders, analyze content.
    - **External web:** Do Google searches, fetch URLs, summarize content.
  - **Note:** These are *not* the same as *MCP tools* (those come later and are externally configured).
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## ⚙️ Setup Tip

If you already have it installed, **update first** using:

```
npm upgrade -g @google/gemini-cli
```

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## 🔍 Viewing Built-in Tools

Use command:

```
/tools
```

This lists all available built-in tools.

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## Permission Control

Gemini CLI **won't run sensitive actions** (like file writes or web fetches) without permission.

Modes:

- `--yolo mode` → Runs freely (⚠️ risky)
- `--approval-mode` → Asks for your permission or auto-approves based on your choice

You can **allow once, always allow, or deny**.

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## Key Built-in Tools (with examples)

### 1 ReadFolder

**Purpose:** Reads contents of a folder.

 *Example:*

**Prompt:** “Are there any files in this folder?”

➔ Gemini uses **ReadFolder** to list them.


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### 2 GoogleSearch + WriteFile

**Purpose:** Search the web and save results locally.

 *Example:*

**Prompt:** “Search for the latest finance headlines in India and save them in finance-news-today.txt”

➔ Uses **GoogleSearch** → asks permission → uses **WriteFile** → file saved 

Then you can check it with `ls` and even search within:

**Prompt:** “Search for ‘GST’ in finance-news-today.txt”

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### 3 WebFetch

**Purpose:** Fetches web content directly from a URL.

 *Example:*

**Prompt:** “Fetch Google Cloud Release Notes from September 9, 2025.”

➔ Gemini uses **WebFetch**, summarizes updates, and can **save** them as:  
`gcp-release-notes-sep9-2025.txt`

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## 4 File Conversion

**Purpose:** Converts one file type to another.

✂️ *Example:*

“Convert finance-news-today.txt to Markdown.”

➡ Creates [finance-news-today.md](#).

## ⚙️ Gemini CLI Built-in Tools (All)— Use Cases + Examples


🧩 Tool	💡 What it Does	🧠 Real-World Example
<b>Edit</b>	Modifies existing files — adds, deletes, or rewrites code/text based on your prompt.	“Edit <i>app.js</i> to add error handling in the login function.”
<b>FindFiles</b>	Searches your local directory for files matching a pattern or name.	“Find all <i>.py</i> files in the <i>scripts</i> folder.”
<b>GoogleSearch</b>	Uses Gemini’s API to do a Google Search and summarize web results.	“Search for the latest AI tools launched this week.”
<b>ReadFile</b>	Reads and displays the content of a single file.	“Read the contents of <i>config.json</i> .”
<b>ReadFolder</b>	Lists all files and folders inside a directory.	“Show me everything in the <i>Downloads</i> folder.”

<b>ReadManyFiles</b>	Reads multiple files at once (batch reading).	<i>"Read all <code>.txt</code> files in the <code>notes</code> directory and summarize them."</i>
<b>SaveMemory</b>	Saves key facts or instructions to memory for later recall in the same session.	<i>"Remember that my project folder is <code>/Users/Ashna/Documents/AIProjects</code>."</i>
<b>SearchText</b>	Searches inside files for a particular keyword or phrase (like grep).	<i>"Search all <code>.js</code> files for the word <code>'API_KEY'</code>."</i>
<b>Shell</b>	Runs shell/terminal commands inside the Gemini CLI environment.	<i>*<code>!ls</code>" or <code>!npm start</code>"</i>
<b>WebFetch</b>	Fetches and retrieves the contents of a specific webpage or URL.	<i>"Fetch the RSS feed from <code>https://cloud.google.com/blog/rss</code> and summarize it."</i>
<b>WriteFile</b>	Creates or overwrites a file with new content.	<i>"Write today's finance headlines into <code>finance-news-today.txt</code>."</i>


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## Quick Memory Tip

Think of these tools in **three power groups**:

-  **Local Environment Tools** — `ReadFile`, `ReadFolder`, `FindFiles`, `ReadManyFiles`, `WriteFile`, `Edit`, `SearchText`

→ Let Gemini handle files like a smart file manager.

-  **Online Access Tools** — [GoogleSearch](#), [WebFetch](#)

→ Let Gemini pull live info from the web.

-  **System Interaction Tools** — [Shell](#), [SaveMemory](#)

→ Let Gemini run commands or remember context.

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## **Multimodal Support**

Gemini can process **images**, **PDFs**, and **text** together.

 *Example:*

You have 4 invoice images ([inv1.png](#) ... [inv4.png](#)).

**Prompt:**

“Extract Invoice Number, Date, Sender, Due Date, and Amount into a table.”

➔ Gemini reads the images and outputs a clean **table** of all info.

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## **Safety First**

- Gemini **asks before performing** any write/read or online action.
- Always double-check before approving tools.

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## **Bottom Line**

Gemini CLI's built-in tools =

 Your bridge between AI and your computer.

They let Gemini **see, read, write, search, and act**, but **you stay in control**.

Next step?  SOON Adding **MCP tools** for even more power.