

# Jarvis AI - Master Brain Map & Detailed Documentation

## Step 1: Jarvis Core Engine

This is the heart of Jarvis. It handles how user input is received, processed, matched to commands, and returned as a response.

Components:

- Voice & Text Input: Takes commands from microphone or typed input.
- NLP Engine: Converts raw text into structured intent using speech-to-text, keyword extraction, and intent recognition.
- Command Router: Matches the intent with available commands in the registry.
- Response Generator: Executes the corresponding module, formats the result, and responds via text or speech.

## Step 2: Work & Productivity

This section focuses on tasks related to office, study, and productivity.

Components:

- PPT Creator: Generates presentations dynamically from topics.
- PDF Creator: Creates PDF files from input text.
- Word & Excel Automation: Opens, edits, and automates office files.
- Summarizer: Condenses long text into shorter summaries.
- Note Manager: Saves and retrieves user notes.
- Schedule Manager: Tracks user's schedule for specific days.
- Contact Manager: Stores and retrieves contact information.

## Step 3: Knowledge & Research

This section enhances Jarvis with external knowledge and research capability.

Components:

- Wikipedia & IMDb: Fetches information from online sources.
- Google Search: Provides search results quickly.
- AI Chat (GPT): Engages in AI-powered conversations and custom Q&A.
- News & Trends: Fetches live news and updates.
- Crypto & Stock Updates: Provides financial and market insights.

## **Step 4: System & Automation**

Automation features that allow Jarvis to interact with and control the system.

Components:

- System Control: Opens and closes applications, manages windows.
- Web & Browser Automation: Controls Chrome, reloads pages, switches tabs, etc.
- Speed Test: Measures internet speed.
- Web Scraping: Extracts data from websites.
- Auto Reply: Responds to emails or chats automatically.
- Clipboard & Typing Automation: Simulates typing and automates text entry.

## **Step 5: Media & Fun**

Entertainment and creativity features.

Components:

- YouTube Player: Plays videos directly from voice commands.
- Spotify Integration: Plays playlists or songs.
- Games: Includes code games or generates custom games.
- AI Image & Video Generation: Creates media content using AI models.

## **Step 6: Smartphone & IoT**

Extends Jarvis to control smartphones and smart home devices.

Components:

- Phone Control: Opens apps like camera, browser, music, etc. remotely.

- Smart Camera: Scans objects, recognizes them, reads barcodes or QR codes.
- IoT & Home Automation: Controls smart devices such as lights, fans, and TVs.

## **Step 7: Future / Advanced**

Future scope and advanced features for Jarvis.

Components:

- Ethical Hacking Tools: Network scanner, port scanner, vulnerability checker.
- Cybersecurity: Malware detection, intrusion alerts, firewall monitoring.
- Data & Analytics: Data visualization, performance dashboards, log analysis.
- Custom Integrations: External APIs, custom AI models, third-party services.