

Inception BD

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Full Stack Data Science with Generative AI Bootcamp 1.0

Assignment 04

Last Submission Date: 30 November 2025, at 11:59 PM

Assignment Submission Instructions:-

Step 1: Create a new **repository** on your GitHub account.

Step 2: **Upload your code** (the `.py` file) from your computer to that repository.

Step 3: **Copy the link to your `.py` file.**

Step 4: **Send the link via email to:** learn.inceptionbd@gmail.com

Gmail Format:-

Compose a new email with the following details:

To: learn.inceptionbd@gmail.com

Subject: FSDS with Gen AI Assignment-4 Submission

Body:

Hello, please find my assignment submission at the following GitHub repository link.

Name: Md. Ridoy Hossain

Student ID: 2AE89DFB

Repository Link: <https://github.com/inceptionbd/Computer-Vision>

Best Regards

Md. Ridoy Hossain

1. Build Your Own AI Desktop Assistant "Jarvis"

Create a voice-activated desktop assistant named "Jarvis" that can perform daily tasks using voice commands. The goal is to master Python functions, library management, and API integration.

Core Features (The "Must-Haves")

Level 1: The Mouth & Ears (Basic Input/Output)

- **Speak Function:** Create a function `speak(text)` that takes text and reads it out loud using `pyttsx3`.
- **Listen Function:** Create a function `take_command()` that uses the microphone to listen to the user and converts the audio into a string (text).
- **Greeting:** When the program starts, Jarvis must greet the user based on the time of day (e.g., "Good Morning, Sir" if it's before 12 PM).

Level 2: The Worker (Automation Tasks)

- **Tell Time:** Command: "*What time is it?*" -> Jarvis replies with the current time.
- **Wikipedia Search:** Command: "*Wikipedia [topic]*" -> Jarvis reads the first 2 sentences of the summary from Wikipedia.
- **Web Browser Automation:**
 - "*Open YouTube*" -> Opens YouTube in the default browser.
 - "*Open Google*" -> Opens Google.
 - "*Open LinkedIn*" -> Opens the student's LinkedIn profile.

Level 3: The "Generative AI" Brain (Bootcamp Special)

- **Integration:** Use the `google-generativeai` library (Gemini API) or `openai` library.
- **The "Think" Command:** If the user asks a question that isn't a basic command (e.g., "*Write a poem about Python*" or "*Explain Data Science*"), Jarvis should send that text to the LLM and read out the answer.

Note: Make "Jarvis" Your Own! (Bonus Challenge)

"The best way to learn is to build **what you need**."

The features listed above are just the starting point. To truly master Python, you are highly encouraged to add **at least one custom feature** of your own choice. Think about what would make your life easier or cooler.