

ZARVIES AI ASSISTANT

Setup Guide (0 to 100) and Project Report

PART 1: COMPLETE SETUP GUIDE

Step 1: Install Python

- Download Python from python.org
- Install and check using command: `python --version`

Step 2: Create Project Folder

- Create folder named `zarvies_ai` on Desktop
- Open Command Prompt in that folder

Step 3: Install Required Packages

- `pip install flask speechrecognition pyttsx3 pywhatkit wikipedia requests sounddevice`

Step 4: Project Structure

- `app.py` (Flask server)
- `commands.py` (AI logic engine)
- `templates/index.html` (UI)
- `static/style.css`
- `static/script.js`

Step 5: Run Server

- `python app.py`
- Open `http://localhost:5000` in browser

Step 6: Use Mobile

- Install ngrok
- Run: `ngrok http 5000`
- Open HTTPS link on phone for mic support

Step 7: Features Available

- Voice commands
- Text chat

- Wikipedia knowledge
- Math solver
- Website opening
- Music playing
- Google fallback
- Modern responsive UI

PART 2: PROJECT REPORT

Project Title: Zarvies AI Assistant

Objective

To design and develop a smart virtual assistant using Python and Flask that accepts voice and text commands, processes user queries, and performs actions such as searching information, answering questions, opening websites, and providing intelligent responses.

Technologies Used

- Python
- Flask
- HTML5, CSS3, JavaScript
- Speech Recognition API
- Wikipedia API
- Bootstrap Icons
- Ngrok for deployment

System Modules

- Frontend User Interface
- Voice Recognition Module
- Command Processing Engine
- Knowledge Engine
- Action Handler
- Deployment System

Key Features

- Voice interaction
- Text chat
- Dynamic commands
- Math calculations
- Movie suggestions

- Daily life utilities
- Technology help
- Education support
- Business tools
- Google fallback search

Advantages

- Easy to use
- Lightweight
- Cross-platform
- Mobile friendly
- Expandable architecture

Applications

- Personal assistant
- Educational help
- Quick information lookup
- College project
- Mini AI system

Future Enhancements

- ChatGPT API integration
- Android APK version
- Database chat history
- Wake word activation
- Cloud deployment

Conclusion

Zarvies AI Assistant successfully demonstrates how modern AI-like assistants can be built using Python and web technologies. It provides a practical and scalable solution suitable for academic and real-world applications.

Designed and Developed By

Alpesh Sankaliya

Paresh Suvan