■ Voxa – AI Assistant Project Report

Introduction

Voxa is a voice-activated AI assistant built using Flask and Python. It provides functionalities such as weather updates, Wikipedia summaries, jokes, news headlines, and note-taking through a web-based interface.

Abstract

This project demonstrates the integration of backend Python modules with a modern web frontend. It focuses on building an interactive assistant that can interpret user commands, process them, and return real-time responses.

Tools Used

• Python 3.10
• Flask Framework
• HTML5, CSS3 & JavaScript (Frontend)
• OpenWeather API for weather updates
• Wikipedia API
• Pyjokes library
• NewsAPI for headlines

Steps Involved in Building the Project

• Setting up the Flask environment and project structure.
• Designing a modern, mobile-responsive frontend with HTML, CSS, and JS.
• Integrating APIs (OpenWeather, Wikipedia, NewsAPI) into Flask backend.
• Implementing command processing logic for various tasks (weather, jokes, notes).
• Deploying the application locally and testing all functionalities.

Conclusion

The Voxa project successfully integrates Python backend with a clean frontend to create an interactive AI assistant. This project demonstrates the use of APIs, Flask routing, and dynamic frontend interaction. It can be extended further with voice recognition, database integration, and advanced AI features.