Online File Management System

Project Report

Introduction

The Online File Management System is a web-based application developed to provide users with a simple and secure way to upload, download, view, and delete files through a web browser. This project is built using the Python Flask framework and is deployed on an Amazon EC2 cloud server. The system removes the need for physical file transfer methods and allows users to manage files remotely from anywhere using the internet.

Objectives of the Project

The main objectives of this project are to allow users to upload files to a server, display uploaded files in a clean interface, enable easy downloading of files, provide file deletion functionality, and successfully deploy a working web application on a cloud platform. This project helps in understanding web development, backend programming, and cloud deployment concepts.

Technologies Used

The technologies used in this project include Python as the main programming language, Flask as the backend framework, HTML and CSS for frontend development, Amazon EC2 for cloud hosting, GitHub for version control, and SSH for secure server access.

System Architecture

The application follows a client-server architecture. Users interact with the system through a web browser. Requests such as file upload or download are handled by the Flask server, which stores files in a dedicated uploads directory. The application runs on port 5000, and appropriate EC2 security group rules are configured to allow access.

Features of the System

Key features of the system include file upload functionality, file listing on the homepage, file download support, file deletion options, and remote access through a public IP address.

Deployment

The application is deployed on an AWS EC2 instance running Amazon Linux. Flask is configured to run on 0.0.0.0 so that it can be accessed externally. Security group rules allow traffic on SSH, HTTP, and port 5000, ensuring smooth and secure access to the application.

Conclusion

The Online File Management System is a successful implementation of a cloud-based web application. It demonstrates practical knowledge of Flask, Linux server management, and AWS cloud services. The project can be further enhanced by adding authentication, database integration, and advanced security features.