

URL Shortener Web Application – Project Report

1. Introduction

The URL Shortener Web Application is designed to convert long URLs into short, easy-to-share links. This project is developed using Flask framework and SQLite database. It helps users manage and store shortened URLs efficiently.

2. Objectives

- Reduce the length of long URLs
- Provide easy redirection to original URLs
- Store and manage URL history
- Build a simple and user-friendly web application

3. Technology Stack

Frontend: HTML, Minimal CSS

Backend: Python (Flask)

Database: SQLite

ORM: SQLAlchemy

4. Working of the Application

Users enter a long URL on the home page. The application validates the URL, generates a unique short code, and stores it in the database. When the short URL is accessed, the user is redirected to the original URL.

5. Conclusion

This project demonstrates the practical use of Flask and databases in web development. It provides a foundation for building scalable web applications and can be enhanced with additional features like user authentication and analytics.