



TOPIC: URL SHORTENER WEB APPLICATION

GOAL:

The goal of this project is to create a URL shortening app that shrinks longer URL's and the shortened URL can be used to access the respective URL page that it belongs to.

TOOLS REQUIRED:

Some of the tools that are required to carry out this project are

- Frontend
- Backend

FRONTEND:

The tools and techniques that are used to implement the frontend part of the project are

- HTML.
- CSS.
- Bootstrap.

BACKEND:

The tools and techniques that are used to implement the backend part of the project are

- Python (Application Server – using Flask Framework).
- SQL Alchemy (Database).

EXPLANATION:

The project directory consists of the following files

-- URL_Shortener_App (Folder)

---- Migrations (Folder)

---- Static (Folder containing CSS and JavaScript Files)

---- Templates (Folder containing the HTML templates)

---- app.py (Contains the backend part of the project)

---- data.sqlite (Database file)

HOME PAGE:

- The home page of this project contains a text box where the user must enter or paste the URL that they need to shorten. This is what the home page looks like.

The screenshot shows a web browser window with the address bar displaying '127.0.0.1:5000'. The page title is 'URL Shortener' and there are links for 'Home' and 'History' in the top right. The main content area has a header 'Welcome to URL Shorten Web App'. Below this is a form with a label 'Original URL' and a text input field containing the placeholder text 'Enter original URL here'. At the bottom of the form is a blue button labeled 'Shorten'.

- After reaching this page the user must paste the URL at the text box and press the Shorten button to get the shortened URL. I had pasted my LinkedIn profile URL so I can shorten it.

This screenshot shows the same URL Shortener interface as the previous one, but the text input field now contains the URL 'https://www.linkedin.com/in/santhosh-m-1158591b7/'. The blue 'Shorten' button remains at the bottom of the form.

- After I had pressed the shorten button, I will get the shortened URL for the pasted long URL.

The screenshot displays the result of the shortening process. It features a large heading 'URL Created' in a bold, serif font. Below the heading is a text box containing the shortened URL 'http://127.0.0.1:5000/Dgv5N5'. At the bottom of the page is a blue button labeled 'Copy URL'.

- I can copy the URL using the copy button present at this page and use it to reach my LinkedIn profile page.

HISTORY PAGE:

- I can also find all my previously shortened URL by going to the history page of the website.
- The history page consists of the following attributes that are accessed from the database.
 - ID (Unique and Primary Key of the database)
 - Short Code (Contains the short code that comes after the base URL)
 - Original URL (Contains the long URL that was shortened)
 - Shortened URL (Contains the short version of the URL)
- This is how the history page looks like.

URL Shortener

[Home](#) [History](#)

All the previously shortened URL's

ID	Short Code	Original URL	Shortened URL
1	Dgv5N5	https://www.linkedin.com/in/santhosh-m-1158591b7/	http://127.0.0.1:5000/Dgv5N5

IMPROVEMENTS:

- A user registration option can be added so that each user can keep track of their shortened URL's and they do see URLs shortened by other users.
- An option to delete the previously shortened URL's either by their ID or by choosing the URL the user needs to delete it.