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Company: MON AND ASSOCIATES

Project Title: Decimal to Binary Converter Web App

Duration: [31/03/2025] – [12/04/2025]

ABSTRACT

The aim of this project is to build a web calculator that converts decimal numbers into binary. This project was developed using Python Flask. The project also included implementing version control using git, where a local and remote repository were created and also parts of the code were generated by incorporating the help of Artificial Intelligence (ChatGPT).

INTRODUCTION

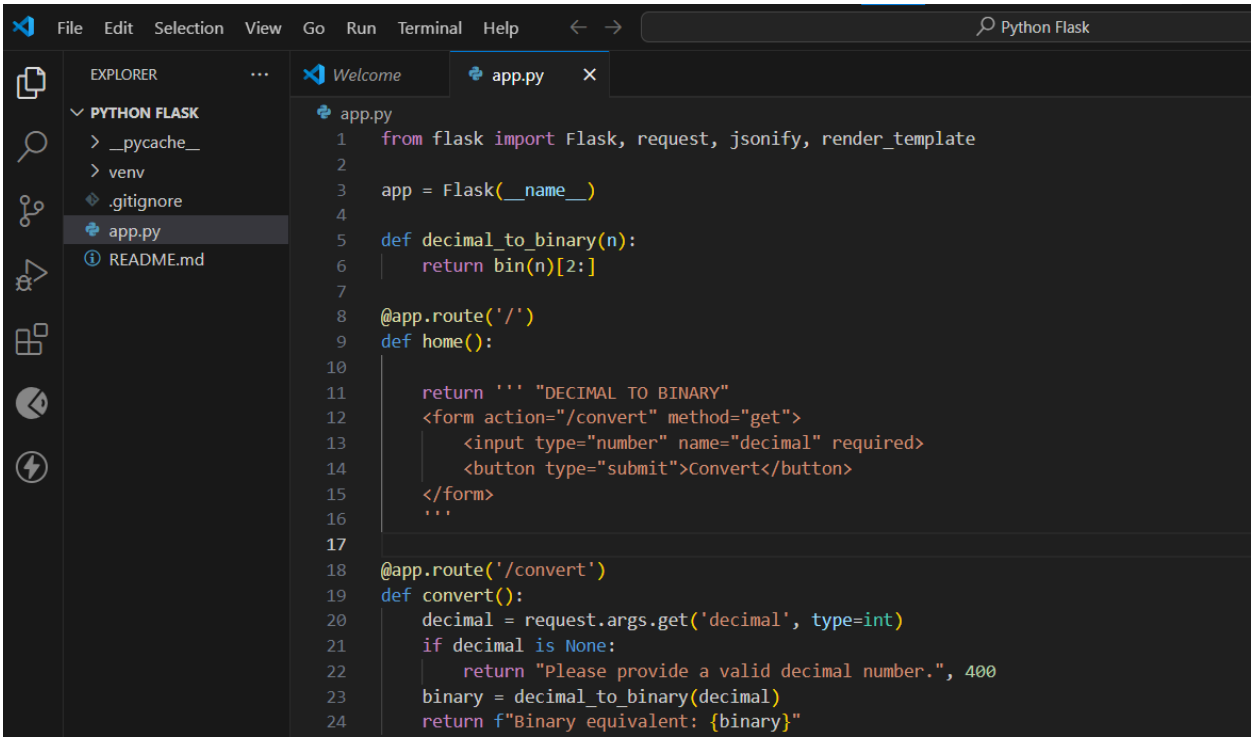
Python Flask is a micro web framework written in Python. It was developed by developer Armin Ronacher. (Wikipedia) Python flask is flexible, easy to use and can be beginner friendly for new or beginner developers to create web applications. This project was implemented using python flask.

Tools and technologies used for this project
Programming Language – Python
Version Control – Git
GitHub

METHODOLOGY

1) Installed Flask via “pip install flask”
2) Virtual environment was created using “venv”
3) Created a flask app with two main routes
   “/” – which displays the frontend form for input.
   “/convert” – route to convert decimal input to binary and return the result as JSON.
4) A git repository was initialized with “git init”
5) Created a “.gitignore” to exclude the virtual environment
6) Code was pushed to a remote Github repository https://github.com/Asante8/Flask-app.git

Code Snippets:

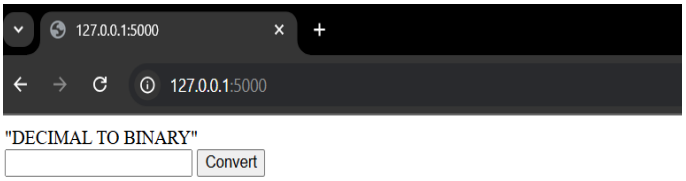


RESULT AND OBSERVATION

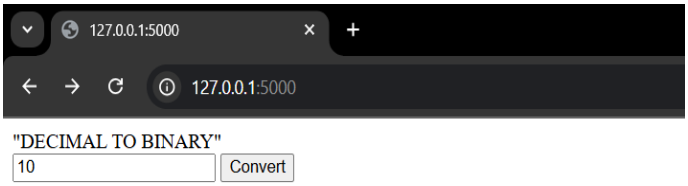
Execution of the program resulted in a successfully built working flask web app that

- Accepts decimal input.
- Converts and returns binary output.
- Uses Git for version control.

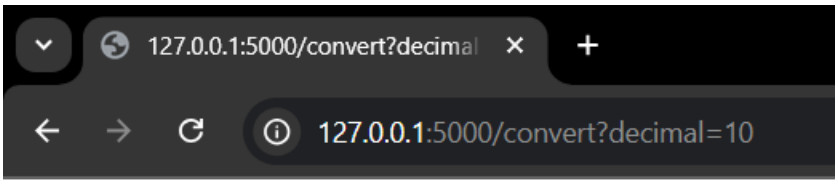
PROGRAM ON RUN



Program interface with no value



Program with input Decimal base“10”



Binary equivalent of the Decimal base number “10”

DISCLOSURE OF AI USAGE

I used the assistance of AI tool which is ChatGPT to generate the body of codes and also aid me in the understanding of flask routing.

CONCLUSION

The project worked as purposed, and it helped me to know and understand web development using Flask.