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Result:

3 Practical Exercises

3.1 Exercise 1:

Create a file named hello.py with the following content

Sample folder structure: the following is the sample folder structure for this exercise (and similarly for the next exercises):

hello.py

templates/ hello.html



Hello geeksforgeeks!

3.2 Exercise 2:

Create a file named homepage.py with the following content



Welcome to My Website

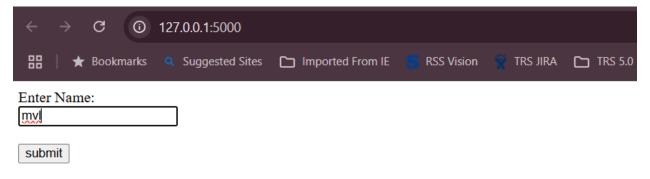
Home | About

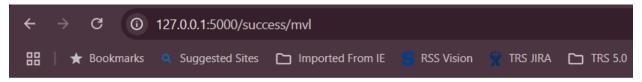
Home Page

Welcom to homepage of our Flask app!

3.3 Exercise 3:

Create a file named name.py with the following content

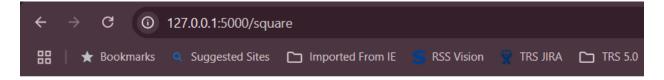




Welcome mvl

3.4 Exercise 4:

Create a file named math.py with the following content



Welcome to the Maths Page!

Enter a number to find its square:

Enter a number: 5 Calculate



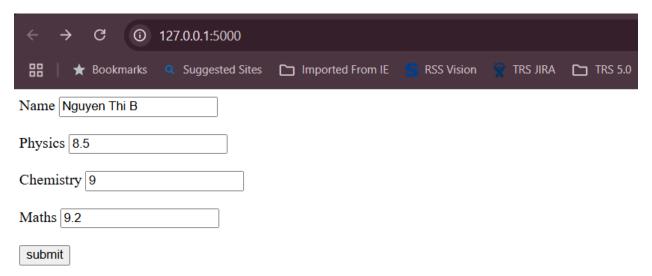
Maths Calculation Result

The square of 5 is: 25

Try another number

3.5 Exercise 5:

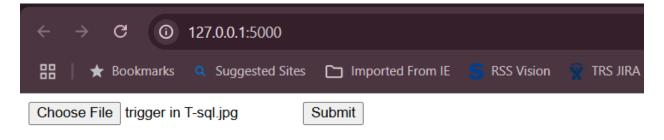
Create a file named score.py with the following content





3.6 Exercise 6:

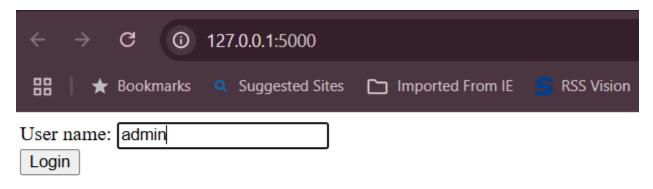
Create a file named newfile.py with the following content



3.7 Exercise 7:

Create a file named login.py with the following content

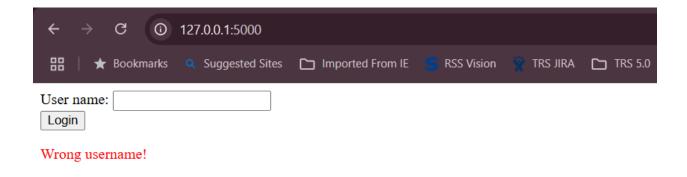
• When I enter "admin", it shows "logged in successfully"





logged in successfully

 But when I enter another name such as "dan", it shows message: "Wrong username!"



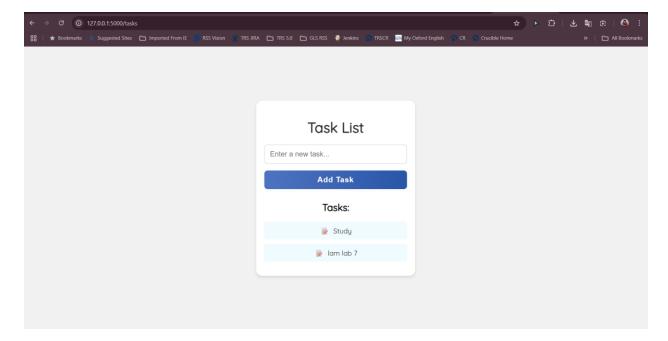
3.8 Exercise 8: Simple Task List

Create a file named tasklist.py that implements a basic task list application. Sample folder structure:

tasklist.py

templates/tasklist.html

Create a route /tasks to display a list of tasks stored in a Python list. Include a form in tasklist.html to add tasks via POST. Append new tasks and refresh to show the updated list. Display tasks in an unordered list.



3.9 Exercise 9: User Profile Page

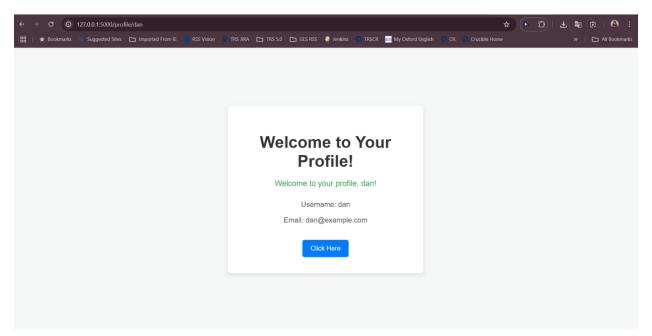
Create a file named profile.py that displays a user profile based on a username. Sample folder structure:

profile.py

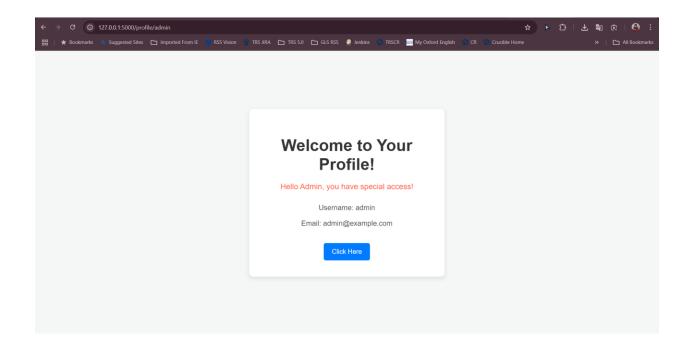
templates/profile.html

Create a route /profile/<username> accepting a username. Render profile.html with the username in a heading. Show "Welcome to your profile, [username]!". If username is "admin", display "Hello Admin, you have special access!".

• Show "Welcome to your profile, [username]!".



• If username is "admin", display "Hello Admin, you have special access!".



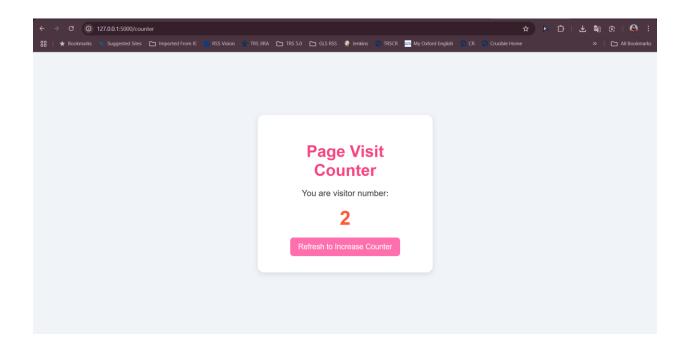
3.10 Exercise 10: Simple Counter

Create a file named counter.py that tracks page visits. Sample folder structure:

counter.py

templates/ counter.html

Create a route /counter using a global variable to track visits. Render counter.html with the count in a heading. Apply basic CSS (center text, background color)



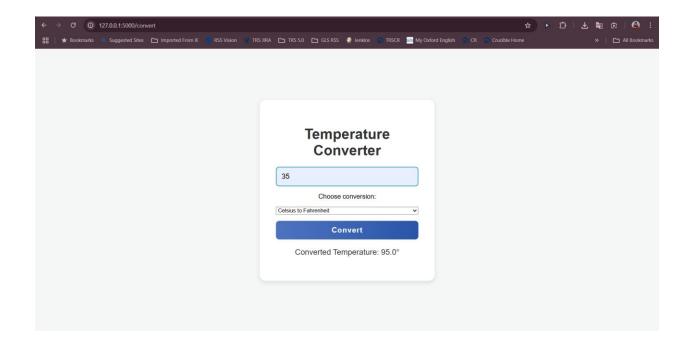
3.11 Exercise 11: Temperature Converter

Create a file named temperature.py for temperature conversion. Sample folder structure:

temperature.py

templates/ temperature.html

Create a route /convert with a form for temperature and conversion type (Celsius to Fahrenheit or vice versa). Handle POST to convert (C to F: F = C * 9/5 + 32; F to C: C = (F - 32) * 5/9). Display result below the form.



3.12 Exercise 12: Dynamic Blog Post

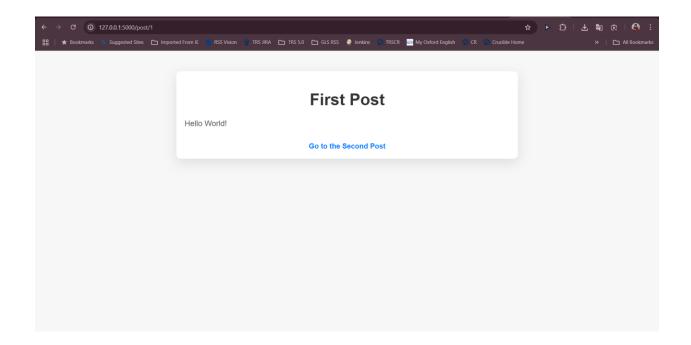
Create a file named blog.py to display blog posts. Sample folder structure:

blog.py

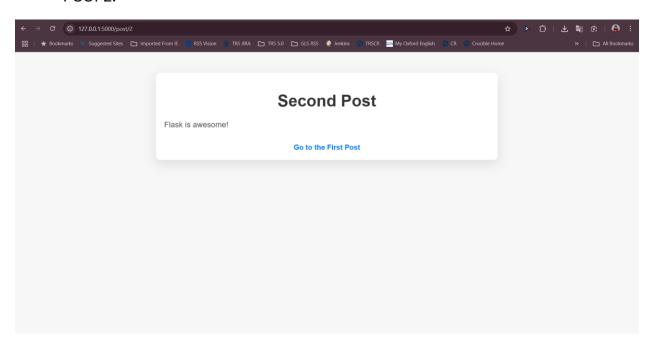
templates/blog.html

Create a route /post/<int:post_id> for integer post IDs. Use a dictionary for posts (e.g., {1: {"title": "First Post", "content": "Hello, world!"}}). Render blog.html with title and content. Return 404 for invalid IDs: "Post not found".

POST 1:



POST 2:



POST "Not Found":



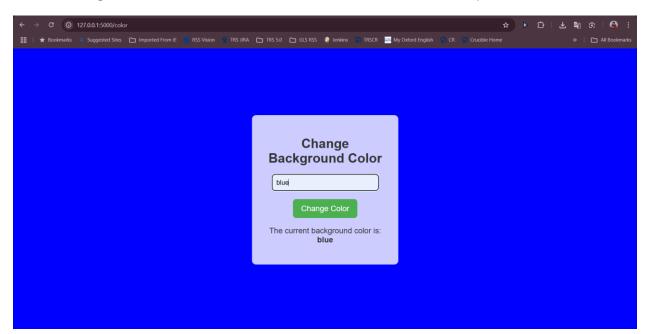
3.13 Exercise 13: Color Changer

Create a file named color.py to change the page background color. Sample folder structure:

color.py

templates/color.html

Create a route /color with a form to input a color (e.g., "red", "#FF0000"). Handle POST to set the background color of color.html. Default color is white if no input.



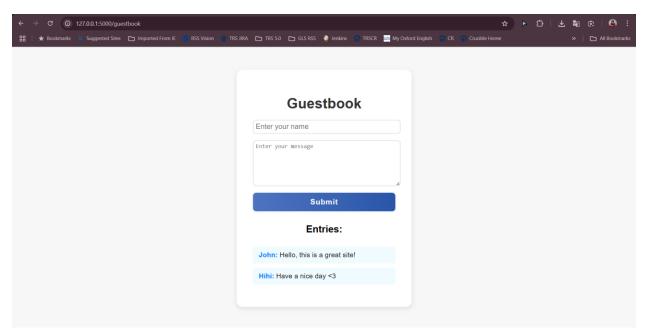
3.14 Exercise 14: Guestbook

Create a file named guestbook.py for a guestbook application. Sample folder structure:

guestbook.py

templates/ guestbook.html

Create a route /guestbook to display entries (name and message) in a list. Include a form to submit new entries via POST. Store entries in a list and display in guestbook.html.



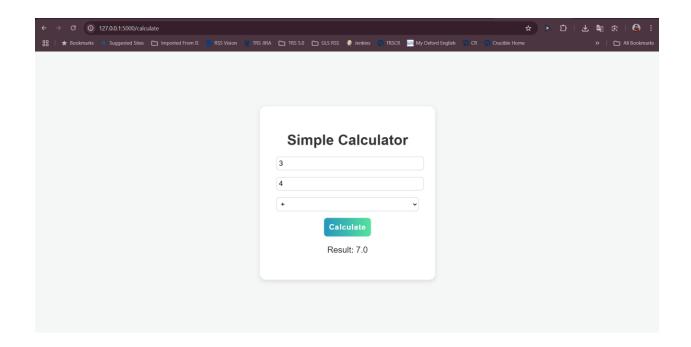
3.15 Exercise 15: Simple Calculator

Create a file named calculator.py for basic arithmetic. Sample folder structure:

calculator.py

templates/ calculator.html

Create a route /calculate with a form for two numbers and an operation (+, -, *, /). Handle POST to compute and display the result. Handle division by zero with an error message.



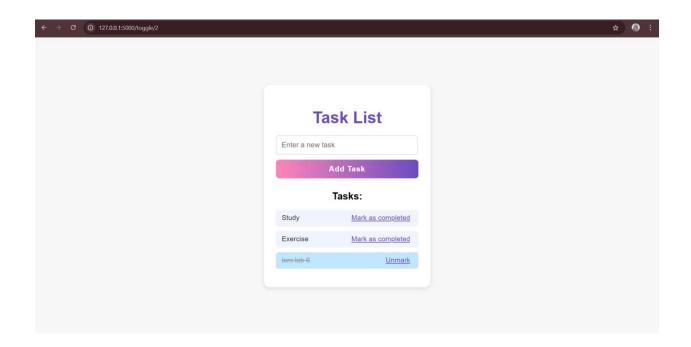
3.16 Exercise 16: To-Do List with Status

Create a file named todolist.py for a to-do list with completion status. Sample folder structure:

todolist.py

templates/todolist.html

Create a route /todo to display tasks with a "completed" status. Include a form to add tasks and a button to toggle completion. Store tasks as a list of dictionaries (e.g., [{"task": "Study", "completed": False}]).



3.17 Exercise 17: Dynamic Menu

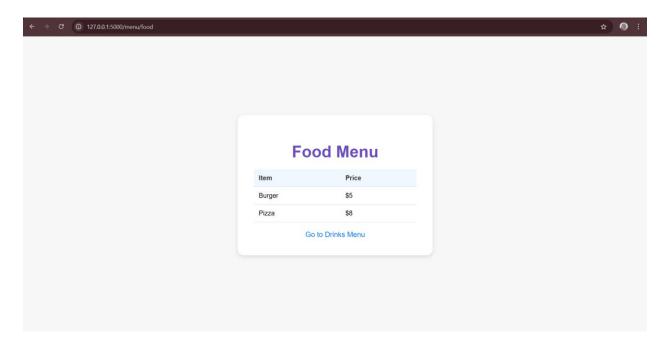
Create a file named menu.py to display a restaurant menu. Sample folder structure:

menu.py

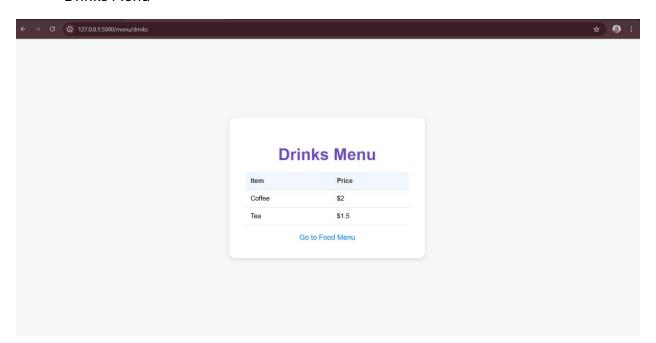
templates/ menu.html

Create a route /menu/<category> for categories (e.g., "drinks", "food"). Use a dictionary for items (e.g., {"drinks": [{"name": "Coffee", "price": 2}]}). Render menu.html with items for the category. Return 404 for invalid categories.

Food Menu



• Drinks Menu



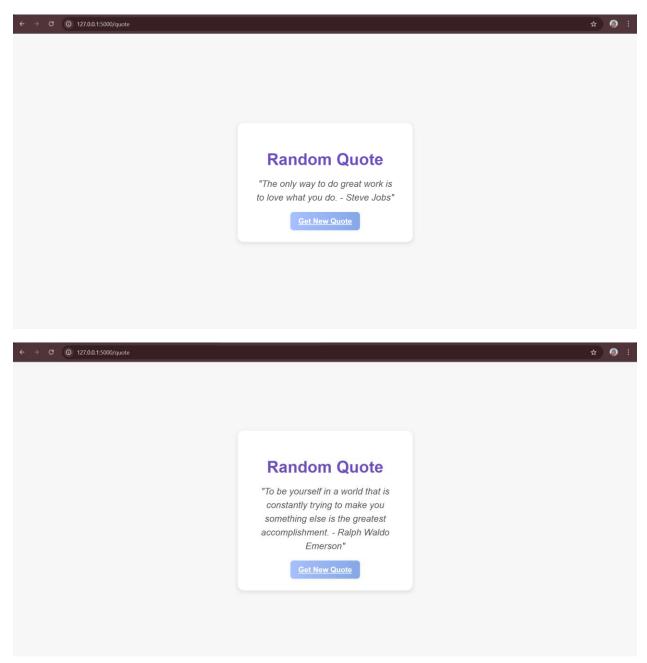
3.18 Exercise 18: Random Quote Generator

Create a file named quote.py to display random quotes. Sample folder structure:

quote.py

templates/ quote.html

Create a route /quote to display a random quote from a list. Use the random module to select a quote. Render quote.html with the quote and a "Get New Quote" button.

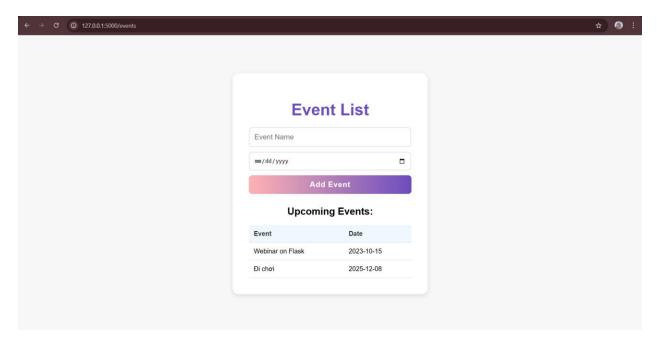


3.19 Exercise 19: Event List

Create a file named events.py for an event listing page. Sample folder structure: events.py

templates/ events.html

Create a route /events to display events (name, date) in a table. Include a form to add events via POST. Store events in a list and render in events.html.



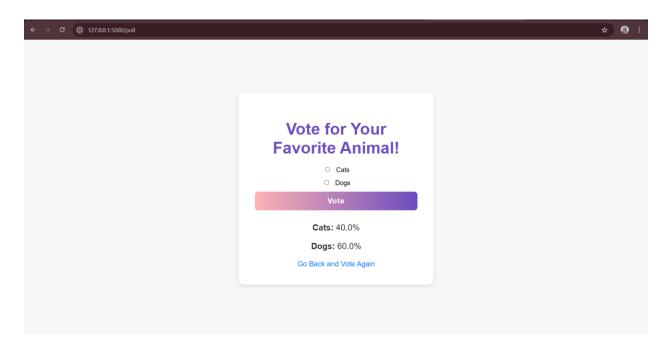
3.20 Exercise 20: Simple Poll

Create a file named poll.py for a voting poll. Sample folder structure:

poll.py

templates/ poll.html

Create a route /poll with a form to vote for options (e.g., "Cats", "Dogs"). Store votes in a dictionary and display results as a percentage. Render poll.html with the form and results.



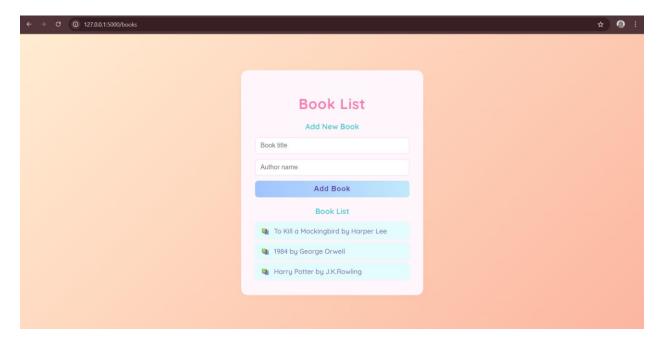
3.21 Exercise 21: Book List

Create a file named books.py to display a list of books. Sample folder structure:

books.py

templates/books.html

Create a route /books to display books (title, author) in a list. Include a form to add books via POST. Store books in a list and render in books.html.



3.22 Exercise 22: Dynamic FAQ

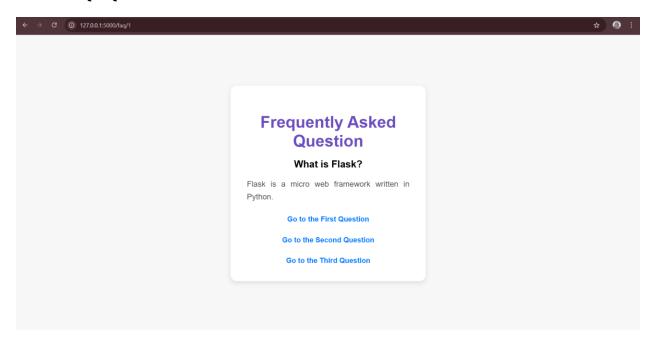
Create a file named faq.py for a FAQ page. Sample folder structure:

faq.py

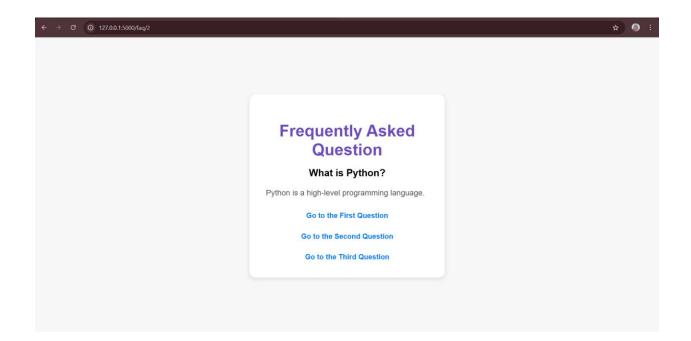
templates/faq.html

Create a route /faq/<int:question_id> for FAQ entries. Use a dictionary for FAQs (e.g., {1: {"question": "What is Flask?", "answer": "A web framework"}}). Render faq.html with the question and answer. Return 404 for invalid IDs.

• FAQ - Question 1:



• FAQ - Question 2:



• FAQ - Question 3:

