Lab4

NYCU Go Programming 2024

2024/10/15

URL

- URL = protocol://host:port/path?query

- Example: http://localhost:8084/lab04?op=add&num1=1&num2=1

Request

`r.URL.Query().Get(…)`

func ServeFile(w ResponseWriter, r *Request, name string)

```
http.ServeFile(w, r, "some.html")
```

html/template

Package template (html/template) implements data-driven templates for generating HTML output safe against code injection.

func ParseFiles(filenames ...string) (*Template, error)

ParseFiles creates a new Template and parses the template definitions from the named files.

func (t *Template) Execute(wr io.Writer, data any) error

Execute applies a parsed template to the specified data object, writing the output to wr.

Cont.

```
var mary = Student {
    Name: "Mary",
    Age: 20,
    Height: 164.7
    Weight: 42.1
}
```

```html
<body>
  <div>Student Name: {{.Name}}</div>
  <div>His / Her age: {{.Age}}</div>
  <div>His / Her height: {{.Height}}</div>
  <div>His / Her weight: {{.Weight}}</div>
</body>
```
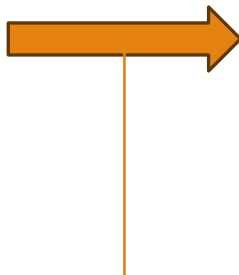
Student Name: Mary
His / Her age: 20
His / Her height: 164.7
His / Her weight: 42.1

```html
▼ <body>
    <div>Student Name: Mary</div>
    <div>His / Her age: 20</div>
    <div>His / Her height: 164.7</div>
    <div>His / Her weight: 42.1</div>
  </body>
```

```go
err := template.Must(template.ParseFiles("some.html")).Execute(w, mary)
```
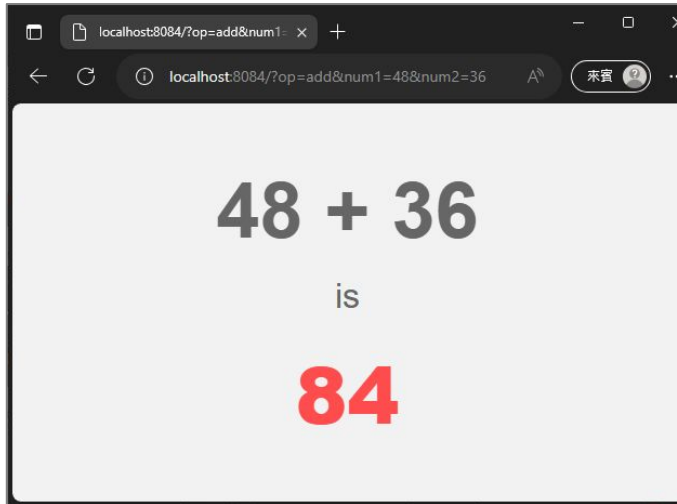
Lab4 Simple web calculator again!

撰寫一個計算機, 網址格式如下, query 要有 op, num1, num2 即可
http://localhost:8084?op=<str>&num1=<int>&num2=<int>

Operation: add / sub / mul / div / gcd / lcm
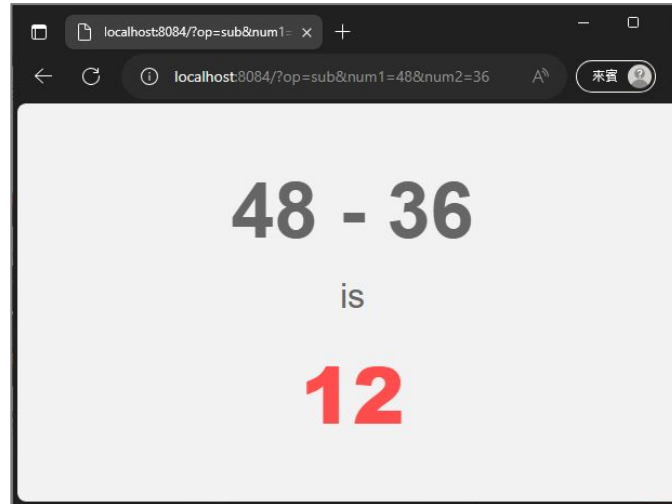
Lab4 Simple web calculator again!

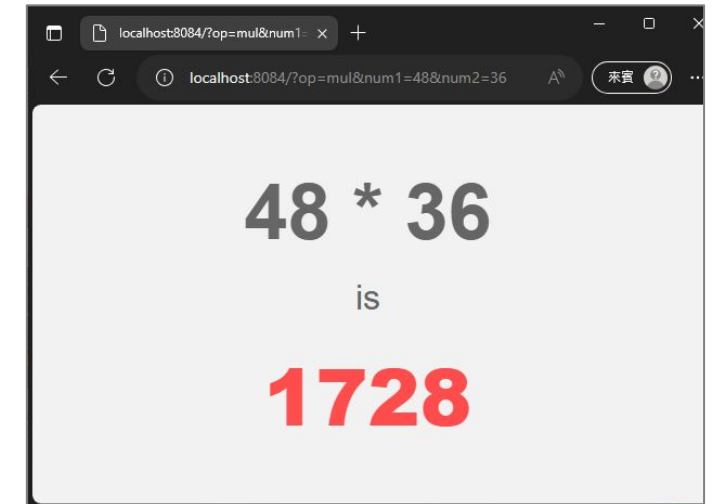Operation: <u>add</u> / <u>sub</u> / <u>mul</u> / <u>div</u> / <u>gcd</u> / <u>lcm</u>
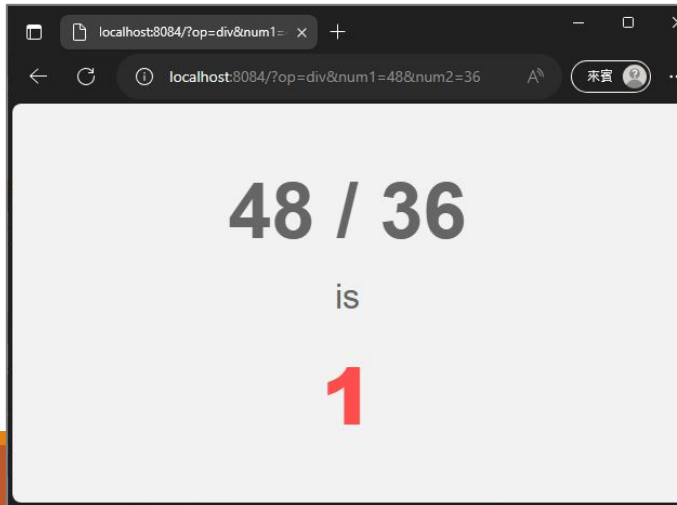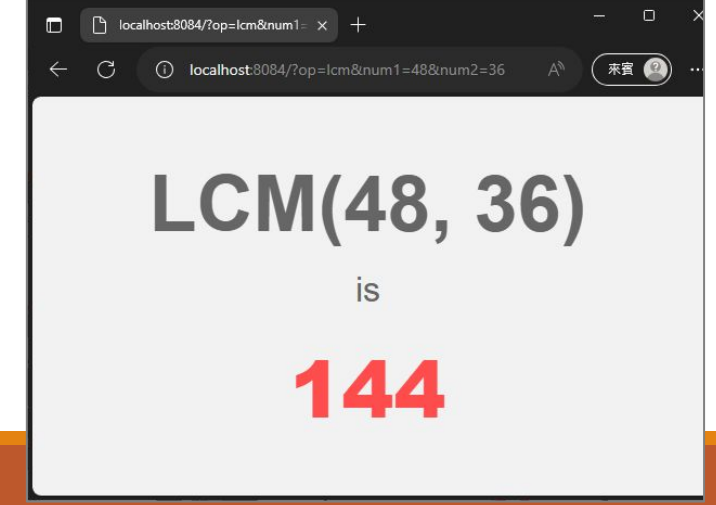
Lab4 Simple web calculator again!

若格式不符, 或造成計算錯誤, 顯示Error Page
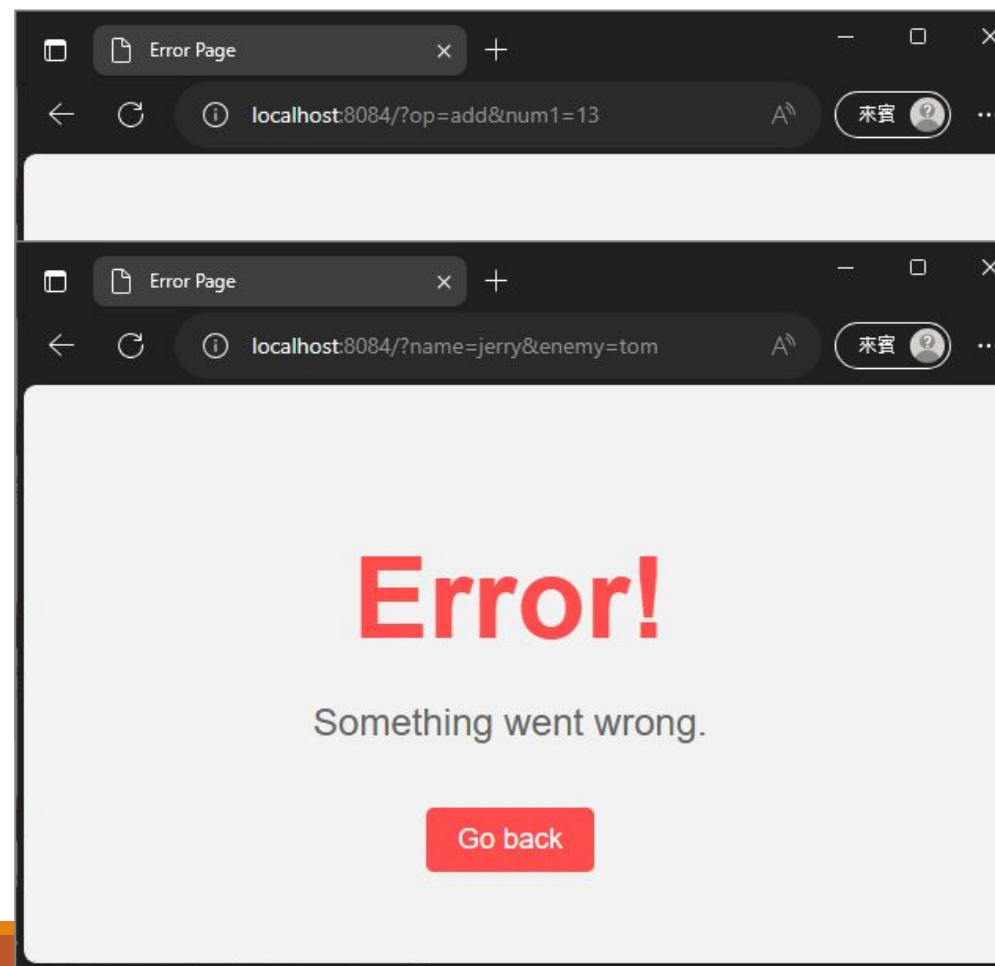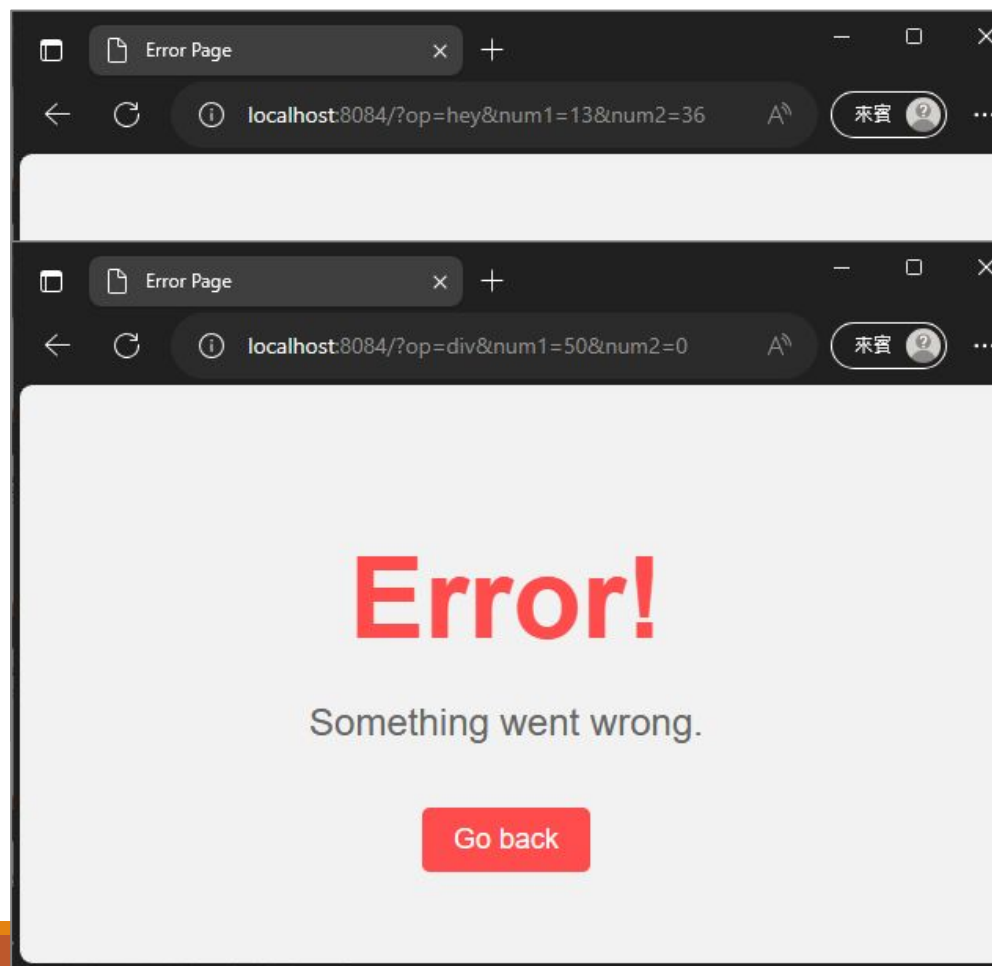
Lab4 Simple web calculator again!

1. 新增目錄 lab4 - $mkdir lab4

2. 移動至 lab4 - $cd lab4

3. $go mod init lab4

4. 加入 lab4.go, lab4_test.go, index.html, 與 error.html

5. 完成 lab4.go 中的函數 Calculator()

6. $go mod tidy

7. $go run . 然後在 browser 嘗試連線

8. $go test

9. 在 .github/workflows 裡面加入 lab4.yml

10. 上傳至 GitHub 並繳交連結