AIT-LAB-01 (Exercise 1& 2) By Amir Ebrahimi

Firstly, Mamp Apache (the free version) downloaded and installed. In the preferences section, ports tabs, default Mamp ports was set (8888). A file named index.html was created in htdocs. When we go to "http://localhost:8888/", "It Works!" screen will be showed. In this case I used port 80 for another apache; although, Mamp does not work when another apache is working.

In the "/conf/apache" path httpd.conf is accessible. In the line of 46, it is possible to change the port. In the installation the port was changed from 80 to 8888.

In MinGW Installation Manager, some packages (including gcc) should be enabled. For these exercises, Cywin Terminal on Windows is used. "setx PATH "%PATH%;F:\Cygwin64\bin"" command is entered on terminal. The code in c++ is written in cgi-bin directory. By "g++ file name", the cpp file will be compiled and the .exe file is created. The name of .exe file should be changed to myCode.cgi (g++ file_name –o file_name.cgi).

Now it is time to change some lines in httpd.conf file. The value of documentRoot is changed from "F:\MAMP\htdocs" to "F:\MAMP\cgi-bin" (line# 192), and the code is added for the ability to execute the files in cgi-bin (line# 381).

```
Alias /MAMP "F:/MAMP/bin/MAMP/cgi-bin"

<Directory "F:/MAMP/bin/MAMP/cgi-bin">

   AllowOverride None

   Options None

   Order allow,deny

   Allow from all

</Directory>
```

In order to work properly, in the c++ file, after content-type, one free line is needed (cout << "Content-type: text/html" << endl << endl;). To print quotation in c++, a backslash should be used before it.

Afterwards, Mamp should be restarted.

A user should enter his data in a form, and a cpp file or a php file is called by method of get and writing the name of the code in the action. As well, a button of back is considered for each page to go to the homepage (index.html).

A css file is added in order to get styles for html elements. Two classes are minded for input tags.

For writing a php code, considering the format of the file is too important. The format should be php; however, it contains the php tag in the html tag.

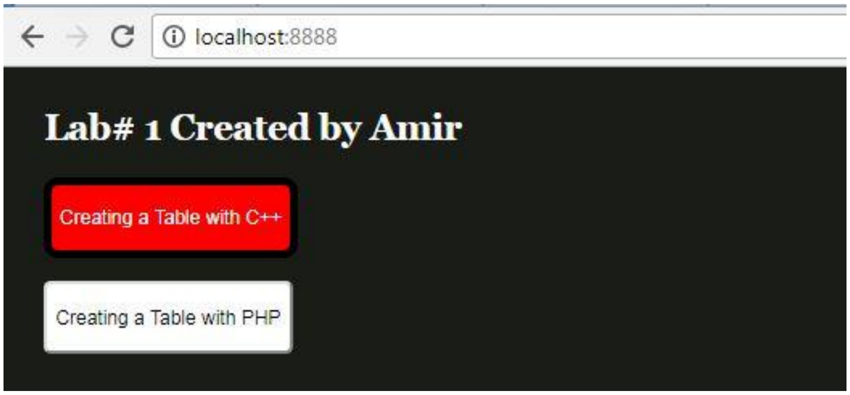
Adding the line "header('Content-Type: text/html');" before anything in the php tag is important and recommended; though, if we ignore doing that, it works properly.

Changing from one directory to the others might create problem. Hence, cgi-bin directory is used.

The files:

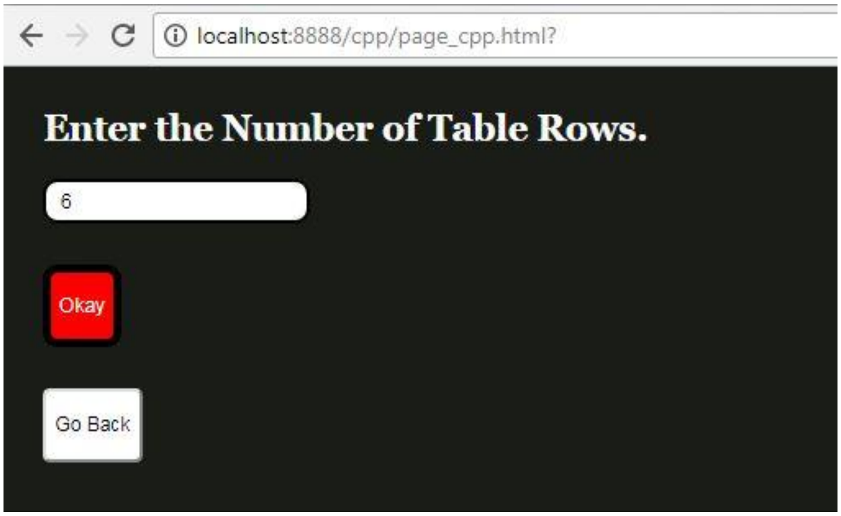
1. httpd.conf (configuration)
2. index.html (homepage)
3. page_cpp.html (page of creating the table by c++)
4. myCode.cpp (c++ file of the previous page)
5. myCode.cgi (the compiled c++ file)
6. page_php.html (page of creating the table by php)
7. myCode.php (php file of the previous page)
8. styles.css (css file)

The output:



localhost:8888

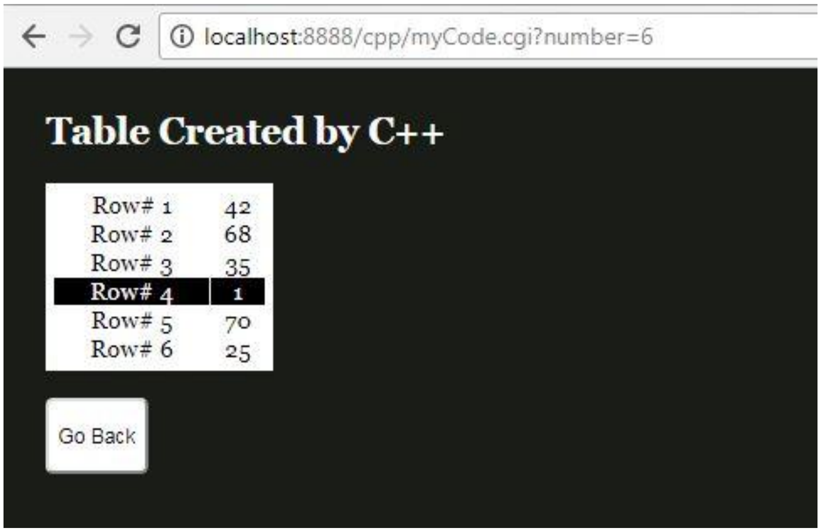
Lab# 1 Created by Amir



localhost:8888/cpp/page_cpp.html?

Enter the Number of Table Rows.

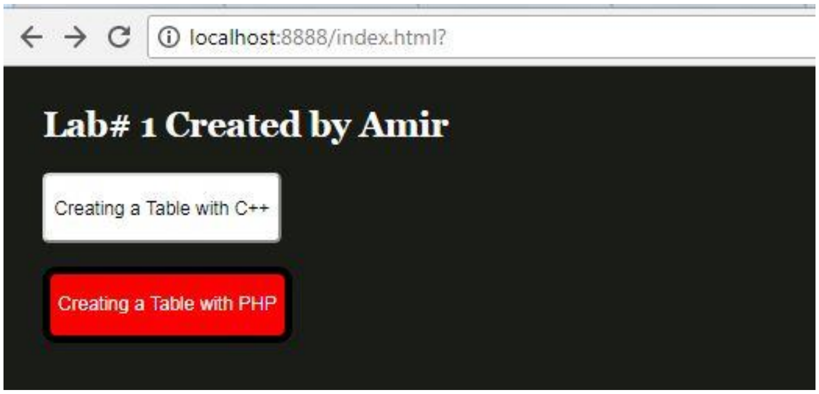
6



localhost:8888/cpp/myCode.cgi?number=6

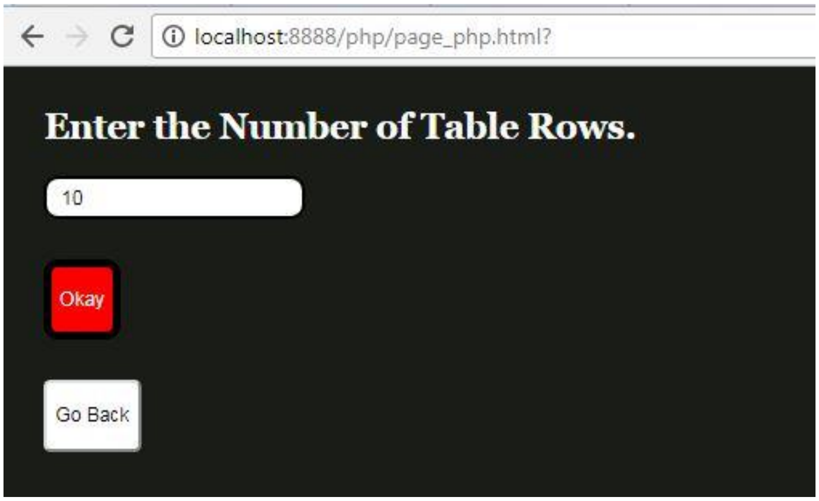
Table Created by C++

Row# 1	42
Row# 2	68
Row# 3	35
Row# 4	1
Row# 5	70
Row# 6	25



localhost:8888/index.html?

Lab# 1 Created by Amir



localhost:8888/php/page_php.html?

Enter the Number of Table Rows.

10

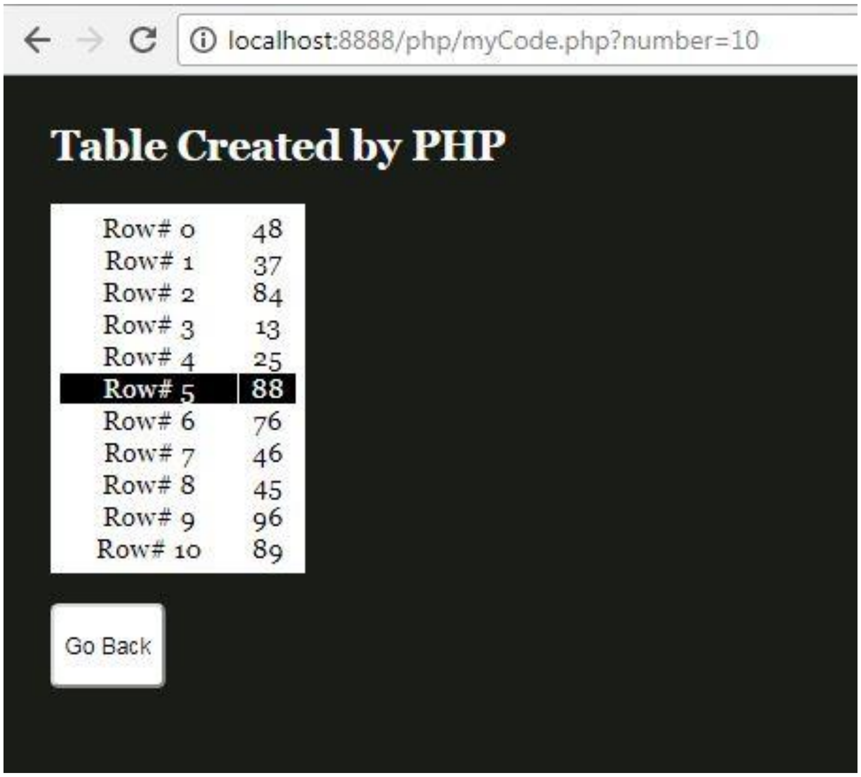


Table Created by PHP

Row# 0	48
Row# 1	37
Row# 2	84
Row# 3	13
Row# 4	25
Row# 5	88
Row# 6	76
Row# 7	46
Row# 8	45
Row# 9	96
Row# 10	89