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Lab no 01

Internet Application Development

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Description of Task

Consider the table shown in Figure 1 and Code Listing 1. Try to solve the following problem?

Write code using C/C++ which performs following tasks:

- a) Prompt the user to enter number of columns?
- b) Prompt the user to enter number of rows?
- c) Get data cell by cell from user using a loop?
- d) Generate an html page to display above data in a table?
- e) Store the page in a folder on desktop.

ASPX CODE

```
<%@ Page Language="VB" AutoEventWireup="false" CodeFile="lab1.aspx.vb" Inherits="lab1" %>
<!DOCTYPE html>
<html>
<head>
<style>
table {
  font-family: arial, sans-serif;
 border-collapse: collapse;
 width: 100%;
}
td, th {
 border: 1px solid #dddddd;
 text-align: left;
  padding: 8px;
tr:nth-child(even) {
  background-color: #dddddd;
</style>
</head>
<body>
<h1>Lab no 01</h1>
           Consider the table shown in Figure 1 and Code Listing 1. Try to solve the
following problem?
           <br />
           Write code using C/C++ which performs following tasks:
  Prompt the user to enter number of columns?
  Prompt the user to enter number of rows?
```

```
Get data cell by cell from user using a loop?
Generate an html page to display above data in a table?
          Store the page in a folder on desktop.
<div>
         <code>
Company
  Contact
  Country
 Alfreds Futterkiste
  Maria Anders
  Germany
 Centro comercial Moctezuma
  Francisco Chang
  Mexico
 Ernst Handel
  Roland Mendel
  Austria
 Island Trading
  Helen Bennett
  UK
 Laughing Bacchus Winecellars
  Yoshi Tannamuri
  Canada
 Magazzini Alimentari Riuniti
  Giovanni Rovelli
  Italy
 <h2>Code</h2>
include <iostream>
#include <fstream>
#include <string>
#include <cstdlib>
using namespace std;
int main()
{
```

```
int rows, columns;
 cout << "Enter number of columns: ";</pre>
 cin >> columns;
 cout << "Enter number of rows: ";</pre>
 cin >> rows;
 // Create a 2D array to hold the data
 string data[rows][columns],col name[columns];
for (int i=0;i<columns;i++)</pre>
 cout<<"Enter name of columns : ";</pre>
 cin>>col_name[i];
 cout<<"\n\t\t******Enter Data in table****** \n\n";</pre>
for(int i=0;i<rows;i++)</pre>
 cout<<"Enter data in "<<i+1<< " rows\n";</pre>
 for(int j=0;j<columns;j++)</pre>
 cout<<"\nEnter "<<col_name[j]<<" : ";</pre>
 cin>>data[i][j];
 }
 // Create an output file stream to write the HTML file
 // ofstream outFile("table.html");
 std::string desktopPath = std::getenv("USERPROFILE");
 desktopPath += "\\Desktop\\";
 // Create an output file stream and open the file for writing
 std::ofstream outFile(desktopPath + "table.html");
 // Write the HTML code to the file
outFile << "<!DOCTYPE html>\n";
 outFile << "<html>\n";
 outFile << "<head>\n";
outFile << "<style>\n";
outFile << "table {\n";</pre>
outFile << " font-family: arial, sans-serif;\n";</pre>
outFile << " border-collapse: collapse; \n";</pre>
outFile << " width: 100%;\n";</pre>
outFile << "}\n";</pre>
 outFile << "td, th {\n";</pre>
 outFile << " border: 1px solid #dddddd;\n";</pre>
 outFile << " text-align: left;\n";</pre>
 outFile << " padding: 8px;\n";</pre>
 outFile << "}\n";</pre>
 outFile << "tr:nth-child(even) {\n";</pre>
 outFile << " background-color: #dddddd;\n";</pre>
outFile << "}\n";</pre>
outFile << "</style>\n";
outFile << "</head>\n";
 outFile << "<body>\n";
 outFile << "<h HTML Table</h>\n";
 outFile << "<table>\n";
outFile << "<tr>\n";
for (int j = 0; j < columns; j++) {
outFile << "<th" << col name[j] << "th>\n";
 //outFile << "<th" << data[0][j] << "th>\n";
outFile << "</tr>\n";
 for (int i = 0; i < rows; i++) {
```

```
outFile << "<tr>\n";
for (int j = 0; j < columns; j++) {
  outFile << "<td" << data[i][j] << "</td>\n";
 }
outFile << "</tr>\n";
}
outFile << "</table>\n";
outFile << "</body>\n";
outFile << "</html>\n";
 // Close the output file stream
outFile.close();
 cout << "HTML file generated and stored on desktop." << endl;</pre>
return 0;
}
                      </code>
               </div>
    <h2>Output</h2>
    <image><img src="lab1ss.PNG" alt="lab01" ></image>
</body>
</html>
VB.NET
Partial Class lab1
    Inherits System.Web.UI.Page
End Class
```

OUTPUT

```
III D:\semester\semester_no_06\IAD\Assignment\temp\bin\Debug\temp.exe
Enter number of columns: 3
Enter number of rows: 4
Enter name of columns : Company
Enter name of columns : Country
Enter name of columns : Contact
Enter data in 1 rows
Enter Company : Handel
Enter Country : Mendel
Enter Contact : Austria
Enter data in 2 rows
Enter Company : Centro
Enter Country : Chang
Enter Contact : Mexico
Enter data in 3 rows
Enter Company : Island
Enter Country : Helen
Enter Contact : UK
Enter data in 4 rows
Enter Company : Alimentari
Enter Country : Rovelli
Enter Contact : Italy
HTML file generated and stored on desktop.
Process returned 	heta (	heta x 	heta) execution time : 107.989 s
Press any key to continue.
```

HTML Table

Company	Contact	Country
Alfreds Futterkiste	Maria Anders	Germany
Centro comercial Moctezuma	Francisco Chang	Mexico
Ernst Handel	Roland Mendel	Austria
Island Trading	Helen Bennett	UK
Laughing Bacchus Winecellars	Yoshi Tannamuri	Canada
Magazzini Alimentari Riuniti	Giovanni Rovelli	Italy