

*Pakistan Institute of Engineering and Applied Sciences, Islamabad*  
*Department of Computer and Information Science*



# Internet Application Development

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*Lab Assignment no. 01*

*Submitted By*

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*Session (21-25)*

**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.**

```
#include <iostream>
#include <fstream>
#include <string>
using namespace std;
int main() {
    int rows, cols;
    cout << "Enter the number of columns: ";
    cin >> cols;
    cout << "Enter the number of rows: ";
    cin >> rows;
    // Dynamically allocate memory for 2D array
    string** data = new string*[rows];
    for (int i = 0; i < rows; ++i) {
        data[i] = new string[cols]; }
    for (int i = 0; i < rows; ++i) {
        for (int j = 0; j < cols; ++j) {
            cout << "Enter data for cell [" << i << "][" << j << "]: ";
            cin >> data[i][j];
```

```
} }
```

```
// Generate HTML page to display the data in a table
```

```
ofstream outputFile("C://Users//Huma Amin//OneDrive//Desktop//IAD Lab 1//table.html");
```

```
if (outputFile.is_open()) {
```

```
outputFile << "<!DOCTYPE html>\n";
```

```
outputFile << "<html>\n<head>\n";
```

```
outputFile << "<style>\n";
```

```
outputFile << "table {\n";
```

```
outputFile << " font-family: arial, sans-serif;\n";
```

```
outputFile << " border-collapse: collapse;\n";
```

```
outputFile << " width: 100%;\n";
```

```
outputFile << "}\n";
```

```
outputFile << "td, th {\n";
```

```
outputFile << " border: 1px solid #dddddd;\n";
```

```
outputFile << " text-align: left;\n";
```

```
outputFile << " padding: 8px;\n";
```

```
outputFile << "}\n";
```

```
outputFile << "tr:nth-child(even) {\n";
```

```
outputFile << " background-color: #dddddd;\n";
```

```
outputFile << "}\n";
```

```
outputFile << "</style>\n</head>\n";
```

```
outputFile << "<body>\n";
```

```
outputFile << "<h2>HTML Table</h2>\n";
```

```
outputFile << "<table>\n";
```

```
for (int i = 0; i < rows; ++i) {
```

```
outputFile << " <tr>\n";
for (int j = 0; j < cols; ++j) {
outputFile << " <td>" << data[i][j] << "</td>\n";
}
outputFile << " </tr>\n";
}
outputFile << "</table>\n</body>\n</html>";
outputFile.close();

cout << "Congratulations! HTML page generated successfully and stored in 'IAD Lab 1' folder
on
desktop!\n";

} else {
cout << "Unable to create HTML file.\n"; }

// Free dynamically allocated memory
for (int i = 0; i < rows; ++i) {
delete[] data[i]; }
delete[] data;

return 0;
}
```

## HTML Table

Company	Contact	Country
Alfreds	Maria	Germany
Centro	Francisco	Mexico
Ernst	Roland	Austria
Island	Helen	UK
Laughing	Yoshi	Canada
Magazzini	Giovanni	Italy