

### Roots of quadratic equation

```
#include <iostream>
#include <cmath>
using namespace std;
int main() {
    double a, b, c;
    double root1, root2, realPart, imgPart;
    cout << " Enter the coefficients of the quadratic equation(a, b, c): ";
    cin >> a >> b >> c;
    double disc = b*b - 4*a*c;
    if (disc > 0) {
        root1 = (- b + sqrt(disc)) / (2*a);
        root2 = (- b - sqrt(9disc))/(2*a);
        cout << " Real and Imaginary roots \n ";
        cout << " Root 1: " << root1 << "\n ";
        cout << " Root 2: " << root2 << "\n ";
    } else if ( disc == 0) {
        root1 = -b / (2 * a );
        cout << " Two Roots are equal \n ";
        cout << " Root : " << root1 ;
    } else {
        realPart = -b/(2*a);
        imgPart = sqrt ( - disc ) / (2 * a );
        cout << " Complex Roots \n ";
        cout << " Root 1: " << realPart << " + " << imgPart << "i\n";
        cout << " Root 2: " << realPart << " - " << imgPart << "i\n";
    }
    return 0;
}
```

### Display word corresponding to a digit

```
#include <iostream>
using namespace std;
int main() {
    int num;
    cout << " Input the digit to display in words : ";
    cin >> num;
    switch(num) {
        case 0:
            cout << " Zero "; break;
        case 1:
            cout << " One "; break;
        case 2:
            cout << " Two "; break;
        case 3:
            cout << " Three "; break;
        case 4:
            cout << " Four "; break;
        case 5:
            cout << " Five "; break;
        case 6:
            cout << "Six"; break;
        case 7:
            cout << " Seven "; break;
        case 8:
            cout << " Eight "; break;
        case 9:
            cout << " Nine "; break;
        default :
            cout << " Invalid input " ;
    }
    return 0; }
```

### address.html:-

```
<html>
<head>
<title> Address </title>
</head>
<body>
<h2 align = "center"> Govt Tribal HSS </h2>
<address>
Govt Tribal HSS Sholayoor <BR>
Sholayoor Post <BR>
Attappadi, Mannarkkad <br>
Palakkad Dist <br>
</address>
<a href = "school.html"> back to school </a>
</body>
</html>
```

### Unordered List Tags

```
<html>
<head>
<title> Higher Education Institutions </title>
</head>
<body bgcolor = " Cyan ">
<h2> Leading Institutions in Kerala for Higher Education </h2 >
<ul>
<li> Indian Institute of Technology, Palakkad </li>
<li> National Institute of Technology, Calicut </li>
<li> Indian Institute of Science Education and Research, Thiruvananthapuram </li>
<li> National University of Advanced Legal Studies, Cochin </ li>
<li> Indian Institute of Space science and Technology </li>
</ul>
</body>
</html>
```

### Table of terrestrial planets

```
<html>
<head>
<title> Terrestrial Planets </title>
</head>
<body>
<table border = "1">
<caption> <b> Terrestrial Planets </b>(Source NASA) </caption>
<tr>
<th> Planet </th>
<th> Day Length <br> (In Earth hour) </th>
<th> Year Length <br> (In Earth days) </th>
</tr>
<tr>
<td> Mercury </td>
<td> 1408 </td>
<td> 88 </td>
</tr>
<tr>
<td> Venus </td>
<td> 5832 </td>
<td> 224.7 </td>
</tr>
<tr>
<td> Earth </td>
<td> 24 </td>
<td> 365.26 </td>
</tr>
</table> </body> </html>
```

### Sum of n natural numbers

```
#include <iostream>
using namespace std;
int main () {
    int n;
    cout << " Enter a positive integer ( n ) : ";
    cin >> n;
    int sum = 0;
    for ( int i = 1; i <= n ; i ++ ) {
        sum += i;
    }
    cout << "The sum of the first " <<n << " natural numbers is: " << sum ;
    return 0;
}
```

### Check integer for palindrome

```
# include < iostream >
using namespace std ;
int main () {
    int n , num , digit , rev = 0;
    cout << " Enter a positive number : " ;
    cin >> num ;
    n = num ;
    while ( num > 0 ) {
        digit = num % 10;
        rev = ( rev * 10 ) + digit ;
        num = num / 10;
    }
    cout << " The reverse of the number is : " << rev;
    if ( n == rev )
        cout << "\n The number is a palindrome . " ;
    else
        cout << "\n The number is not a palindrome . " ;
    return 0;
}
```

### Sorting of array

```
#include <iostream>
using namespace std;
int main() {
    int heights [20] , i , j , n , temp;
    cout << " Enter the number of students \n ";
    cin >> n ;
    cout << " Enter the heights of students \n ";
    for ( i = 0; i < n ; i ++ ) {
        cout << " Student " << ( i + 1 ) << " : " ;
        cin >> heights [ i ] ;
    }
    for ( i = 0; i < n ; i ++ ) {
        for ( j = i + 1; j < n ; ++ )
            if ( heights [ i ] > heights [ j ] ) {
                temp = heights [ i ] ;
                heights [ i ] = heights [ j ] ;
                heights [ j ] = temp;
            }
    }
    cout << " The Sorted Heights \n ";
    for ( i = 0; i < n ; i ++ ) {
        cout << heights [ i ] << "\n " ;
    }
    return 0;
}
```

### Case converter using JavaScript

```
<html>
<head>
<title> Case Converter </title>
<script language = "javascript">
function convertToUpperCase() {
    var textInput = document.myForm.textInput.value;
    document .myForm.textInput.value = textInput.toUpperCase();
}
function convertToLowerCase() {
    var textInput = document.myForm.textInput.value;
    document.myForm.textInput.value = textInput.toLowerCase();
}
</script>
</head>
<body bgcolor = " green ">
<h2> lower case the celebration of equality and simplicity in language and design </h2>
<form name = "myForm">
<table>
<tr>
<td> Provide a text </td>
<td> <input type = "text" name = "textInput"> </td>
</tr>
<tr>
<td> <input type = "button" onclick = "convertToUpperCase()" value = "ToUpperCase">
<td> <input type = "button" onclick = "convertToLowerCase()" value = "ToLowerCase" > </td>
</tr>
</table>
</form>
</body>
</html>
```

### Client login page

```
<HTML>
<HEAD>
<TITLE> LOGIN </TITLE>
<HEAD>
<BODY>
<FORM>
<TABLE>
<TR>
<TH> Client Login </TH>
</TR>
<TR>
<TD> User Name </TD>
<TD> <INPUT Type = " Text "> </TD>
</TR>
<TR>
<TD> Password </TD>
<TD> <INPUT Type = " Password "> </TD>
</TR>
<TR>
<TD> <INPUT Type = "Submit" value = "Submit"> </TD>
<TD> <INPUT Type = " Reset " value = "Clear"> </TD>
</TR>
</TABLE>
</FORM>
</BODY>
</HTML>
```

### Compute length of a string

```
#include <iostream>
#include <stdio>
using namespace std;
int main () {
    char str [50];
    int i , length =0;
    cout << " Enter the string : ";
    cin.getline( str, 50);
    for ( i =0; str [ i ] != '\0 ' ; ++ i )
        length ++;
    cout << " Length of the string is : " << length ;
    return 0;
}
Compute nCr using a user-defined function
#include <iostream>
using namespace std;
long fact(int n) {
    long result = 1;
    for ( int i = 1; i <= n ; ++ i ) {
        result = result * i ;
    }
    return result ;
}
int main() {
    int n , r , ncr ;
    cout << " Enter the value of n and r ( positive integer ) " ;
    cin >> n >> r ;
    if ( ( n >= r ) && ( r >= 0 ) ) {
        ncr = fact ( n ) / ( fact ( r ) * fact ( n - r ) ) ;
        cout << " nCr is : " << ncr ;
    }
    else
        cout << " n and r must be non - negative integers and n > r . " ;
    return 0;
}
```

### Student record management using structure

```
#include <iostream>
#include <stdio>
using namespace std;
struct student {
    int admNo ;
    char name [25];
    int ceMark ;
    int peMark ;
    int totalMark ; };
int main() {
    student s ;
    cout << " Enter the student details \n " ;
    cout << " In Admission Number : " ;
    cin >> s.admNo ;
    cout << " In Name: " ;
    cin >> ws ;
    gets ( s.name ) ;
    cout << " In CE Mark : " ;
    cin >> s.ceMark ;
    cout << " In PE Mark : " ;
    cin >> s.peMark;
    s.totalMark = s.peMark + s.ceMark;
    cout << " In The Student Details \n " ;
    cout << " admNo : " << s.admNo ;
    cout << " ceMark : " << s.ceMark ;
    cout << " peMark : " << s.peMark ;
    cout << " sTotal Mark : " << s.totalMark ;
    return 0; }
```

### Integer swap operation using a user-defined function with pointer arguments

```
#include <iostream>
using namespace std;
void swap( int *x , int *y ) {
    int t;
    t = *x;
    *x = *y;
    *y = t;
}
int main() {
    int a , b;
    cout << " Enter the values of a and b " ;
    cin >> a >> b;
    cout << " In Before Swap \n ";
    cout << " a = " << a << " b = " << b;
    swap ( &a , &b);
    cout << " In After Swap \n ";
    cout << " a = " << a << " b = " << b;
}
```

### Sum of the squares of the first N natural numbers

```
#include <iostream>
using namespace std;
int main() {
    int num , sum =0, i;
    cout << " Enter the limit: " ;
    cin >> num;
    for (i =1; i <= num; i ++ )
        sum = sum + i*i;
    cout << " Sum of square: " << sum;
    return 0;
}
```

### Kerala tourism web page

```
<html>
<head>
<title> Kerala Tourism </title>
</head>
<body background = "mountains.jpeg" bgcolor = " Green ">
<h1 align = "center"> DEPARTMENT OF TOURISM </h1> <h2 align = "center"> Kerala State </h2> <b>
Kerala </b> , in the south-western part of India, is a highly desirable tourist destination in Asia, often called
<font size = " 10 " color = " blue " face = " Cambria "> God's Own Country. </font> </b> It was recognized
by National Geographic Traveller as one of the world's 50 lifetime destinations and one of the thirteen <em>
paradises on Earth. </em>
</body>
</html>
```

### Hyperlinking to Various Web Pages

```
school.html:-
<html>
<head>
<title> My School </title>
</head>
<body background = " school.jpeg ">
<h1 align = " CENTER " color = " blue " > Govt. Tribal HSS Sholayoor </h1> <br> Our school, located in
the picturesque hilly region of Sholayoor within Palakkad District, is nestled in the captivating Attappadi
mountain area a renowned hill station in Kerala. The school proudly offers four distinct batches of Higher
Secondary Courses, namely Biology Science, Home Science, Commerce, and Sociology. <br> From first
standard to twelve about 800 students are studying here. <BR> With a student body ranging from the first
standard to the twelfth, we currently educate approximately 800 students. Furthermore, our school is
supported by a dedicated team of about 35 staff members who work diligently to provide quality education.
<br> <a href="address.html"> Click here for our school address </a>
</body> </html>
```