Practical Journal of class 10th Sindh Textboard Karachi

All the Activity made by HASSAN QAMAR:

(SOFTWARE ENGINEER FROM THE UNIVERSITY OF KARACHI DEPARTMENT OF COMPUTER SCIENCE)

Activity No. 01

- In this Activity the student just have to Download and Install Dev-C++

1. Download Dev-C++ from https://sourceforge.net/projects/orwelldevcpp/
2. After downloading install Dev-C++ by clicking on executable file.

Activity No. 02

```cpp
#include <iostream>
using namespace std;
int main() {
    cout << "\n\n\t\t JAMSHORO \n";
    cout << "\t============================\n";
    cout << "\t\t Welcome to \n";
    cout << "\t Sindh Textbook Board";
    return 0;
}
```

```
E:\Edu\Class 10\Practical Journal\Activity no 02\Project1.exe

                JAMSHORO
        ============================
                Welcome to
         Sindh Textbook Board
--------------------------------
Process exited after 0.122 seconds with return value 0
Press any key to continue . . .
```

Activity No. 03

```cpp
#include <iostream>

using namespace std;

int main() {
    cout << "\n\n\t Size of fundamental data types in C++ (in bytes):\n";
    cout << "\t ============================================================\n";
    cout << "\tThe Size of character is:       " << sizeof(char) <<"bytes \n";

    cout << "\tThe Size of integer is:         " << sizeof(int) << "bytes \n";
    cout << "\tThe Size of long is:            " << sizeof(long) << "bytes \n";

    cout << "\tThe Size of float is:           " << sizeof(float) << "bytes \n";
    cout << "\tThe Size of double is:          " << sizeof(double) << "bytes \n";

    cout << "\tThe Size of boolean is:         " << sizeof(bool) << "bytes \n";

    cout << "\tThe Size of short is:           " << sizeof(short) << "bytes \n";
    cout << "\tThe Size of long long is:       " << sizeof(long long) << "bytes \n";
//the size of short and long is not define in the Practical journal but i did it because it is fundamental data types
    return 0;
}
```

```
E:\Edu\Class 10\Practical Journal\Activity no 03\Project1.exe

 Size of fundamental data types in C++ (in bytes):
 ============================================================
The Size of character is:       1bytes
The Size of integer is:         4bytes
The Size of long is:            4bytes
The Size of float is:           4bytes
The Size of double is:          8bytes
The Size of boolean is:         1bytes
The Size of short is:           2bytes
The Size of long long is:       8bytes

--------------------------------
Process exited after 0.124 seconds with return value 0
Press any key to continue . . .
```

Activity No. 04

```cpp
#include <iostream>

using namespace std;

int main() {
    int a, b, sum;

    cout << "\n\t Enter the value in variable a =  ";
    cin >> a;

    cout << "\n\t Enter the value in variable b =  ";
    cin >> b;

    sum = a+b;
    cout <<"\n\t================================";
    cout << "\n\t The sum of a+b = "<<sum;
    cout <<"\n\t================================\n\n";


    return 0;
}
```

```
E:\Edu\Class 10\Practical Journal\Activity no 04\Project1.exe

         Enter the value in variable a =  3

         Enter the value in variable b =  4

        ================================
         The sum of a+b = 7
        ================================


--------------------------------
Process exited after 7.434 seconds with return value 0
Press any key to continue . . .
```

Activity No. 05

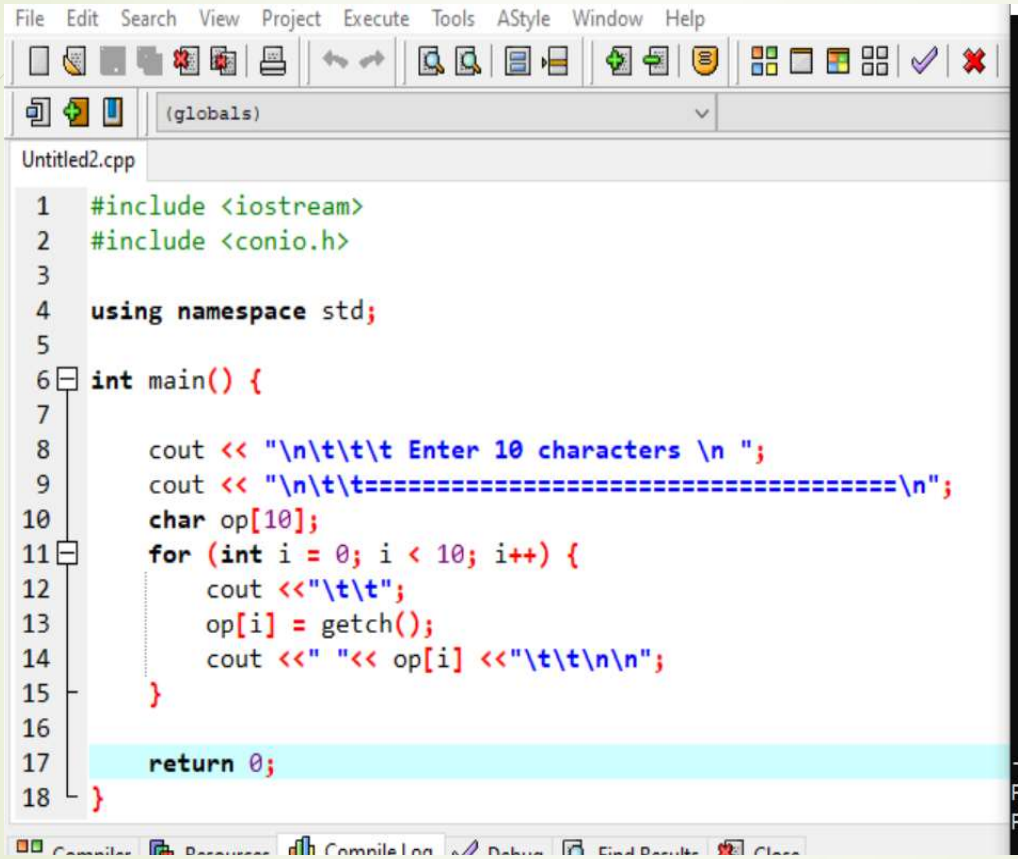
Untitled2.cpp

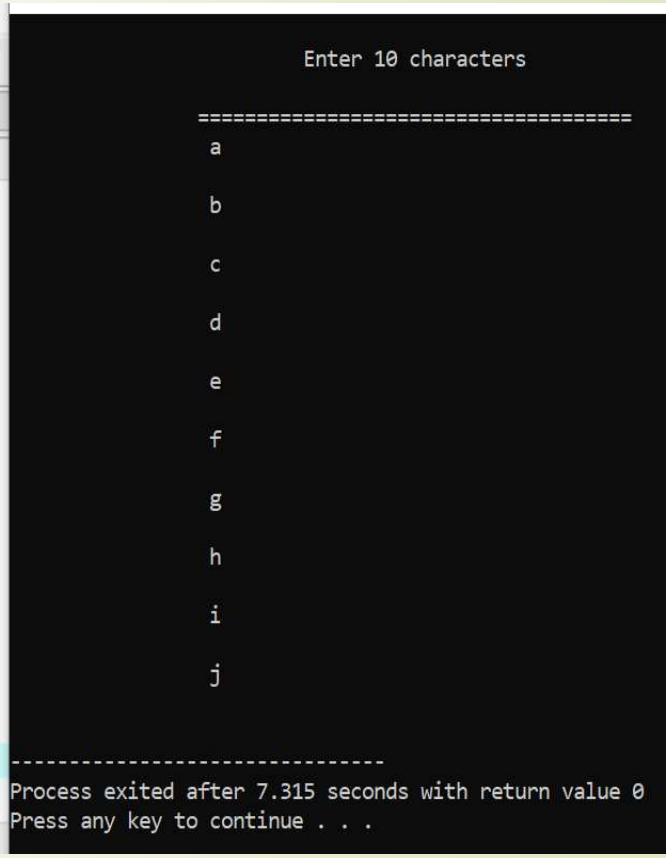
```cpp
#include <iostream>
using namespace std;

int main() {
    int math, english, urdu, computer, science, total, percent;
    cout << "\n\n\t\t\t\t    CALCULATE TOTAL, PERCENTAGE AND GRADES \n";
    cout << "\t\t==========================================================================\n\n";

     cout << "\t\t\t\t Enter marks obtained in Math : ";
    cin >> math;

    cout << "\t\t\t\t Enter marks obtained in English : ";
    cin >> english;

    cout << "\t\t\t\t Enter marks obtained in Urdu : ";
    cin >> urdu;

    cout << "\t\t\t\t Enter marks obtained in Computer : ";
    cin >> computer;

    cout << "\t\t\t\t Enter marks obtained in Science : ";
    cin >> science;

    cout << "\n\n\t\t\t\t--------x--------x--------x--------x--------\n\n";
    cout << "(Each subject carry 100 Marks )\n\n";

    total = math + english + urdu + computer + science;
    cout << "The total is equal to  : "<< total<<"\n";
    percent = total * 100 / 500;
    cout << "The percentage is equal to  : "<< percent<<"%\n\n\n";
    char grade;
    if (percent >= 33 && percent <=40 ) {
        cout << "\t\t\t\tThe Grade is equal to E \n\n\n ";
    }else if (percent >= 41 && percent <=50 ) {
        cout << "\t\t\t\tThe Grade is equal to D \n\n\n ";
    }else if (percent >= 51 && percent <=60 ) {
        cout << "\t\t\t\tThe Grade is equal to C \n\n\n ";
    }else if (percent >= 61 && percent <=70 ) {
        cout << "\t\t\t\tThe Grade is equal to B \n\n\n ";
    }else if (percent >= 71 && percent <=80 ) {
        cout << "\t\t\t\tThe Grade is equal to A \n\n\n ";
    }else if (percent >= 80 && percent <=100 ) {
        cout << "\t\t\t\tThe Grade is equal to A1 \n\n\n ";
    }else {
        cout << "\t\t\t\t Out of Range \n\n\n";
    }
    return 0;
}
```

E:\Edu\Class 10\Practical Journal\Activity no 05\Project1.exe

```
                                CALCULATE TOTAL, PERCENTAGE AND GRADES
            ==========================================================================

                                Enter marks obtained in Math : 60
                                Enter marks obtained in English : 70
                                Enter marks obtained in Urdu : 80
                                Enter marks obtained in Computer : 90
                                Enter marks obtained in Science : 99


                               --------x--------x--------x--------x--------

(Each subject carry 100 Marks )

The total is equal to  : 399
The percentage is equal to  : 79%


                                The Grade is equal to A



--------------------------------
Process exited after 28.5 seconds with return value 0
Press any key to continue . . .
```

Activity No. 06





Activity No. 07

```cpp
#include <iostream>
using namespace std;

int main()
    {
    cout << "\n\t=====================================================\n\n";
    cout << "\t\t\'S\'\t\'T\'\t\'B\'\t\'B\'\t\n\n";
    cout <<"\t\t\t\"JAMSHORO\"\n";
    cout << "\n\t=====================================================\n\n";
    return 0;
}
```

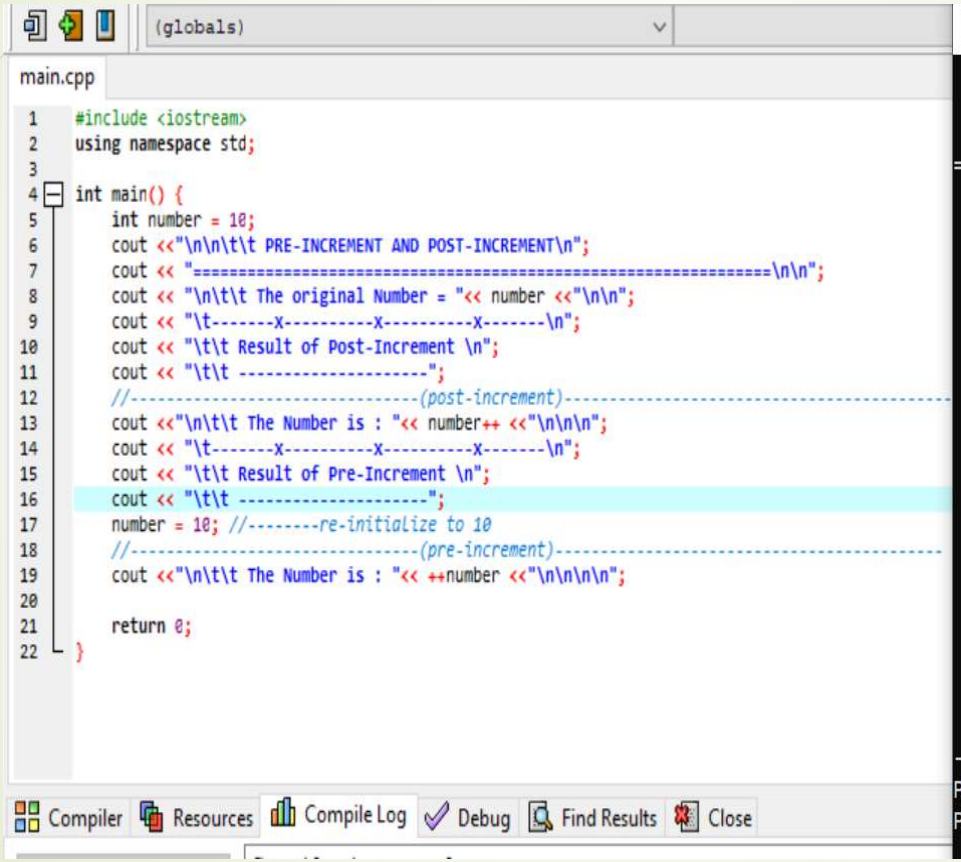
```
E:\Edu\Class 10\Practical Journal\Activity no 07\Project1.exe

        ================================================

                'S'     'T'     'B'     'B'

                        "JAMSHORO"

        ================================================


--------------------------------
Process exited after 0.1241 seconds with return value 0
Press any key to continue . . .
```

Activity No. 08

```
1  #include <iostream>
2
3  using namespace std;
4  int main() {
5      cout << "\n\n";
6      cout << " *\n *\t*\n *\t*\t*\n *\t*\n *";
7      cout << "\n\n";
8      return 0;
9  }
```

```
E:\Edu\Class 10\Practical Journal\Activity no 08\Project1.exe


 *
 *       *
 *       *       *
 *       *
 *


--------------------------------
Process exited after 0.1063 seconds with return value 0
Press any key to continue . . .
```

Activity No. 09



```
(globals)

main.cpp

1   #include <iostream>
2   using namespace std;
3
4   int main() {
5       int number = 10;
6       cout <<"\n\n\t\t PRE-INCREMENT AND POST-INCREMENT\n";
7       cout << "============================================================\n\n";
8       cout << "\n\t\t The original Number = "<< number <<"\n\n";
9       cout << "\t-------x----------x----------x-------\n";
10      cout << "\t\t Result of Post-Increment \n";
11      cout << "\t\t --------------------";
12      //------------------------------(post-increment)----------------------------------------
13      cout <<"\n\t\t The Number is : "<< number++ <<"\n\n\n";
14      cout << "\t-------x----------x----------x-------\n";
15      cout << "\t\t Result of Pre-Increment \n";
16      cout << "\t\t --------------------";
17      number = 10; //--------re-initialize to 10
18      //------------------------------(pre-increment)-----------------------------------------
19      cout <<"\n\t\t The Number is : "<< ++number <<"\n\n\n\n";
20
21      return 0;
22  }

Compiler  Resources  Compile Log  Debug  Find Results  Close
```

```
E:\Edu\Class 10\Practical Journal\Activity no 09\Project1.exe

                PRE-INCREMENT AND POST-INCREMENT
============================================================


                The original Number = 10

        -------x----------x----------x-------
                Result of Post-Increment
                --------------------
                The Number is : 10


        -------x----------x----------x-------
                Result of Pre-Increment
                --------------------
                The Number is : 11



------------------------------
Process exited after 0.1188 seconds with return value 0
Press any key to continue . . .
```

Activity No. 10

(globals)

Untitled3.cpp

```
1   #include <iostream>
2   using namespace std;
3
4   int main() {
5       int number = 10;
6       cout <<"\n\n\t\t PRE-DECREMENT AND POST-DECREMENT\n";
7       cout << "============================================================\n\n";
8       cout << "\n\t\t The original Number = "<< number <<"\n\n";
9       cout << "\t-------x----------x----------x-------\n";
10      cout << "\t\t Result of Post-Decrement \n";
11      cout << "\t\t --------------------";
12      //------------------------------(post-decrement)----------------------------------------
13      cout <<"\n\t\t The Number is : "<< number-- <<"\n\n\n";
14      cout << "\t-------x----------x----------x-------\n";
15      cout << "\t\t Result of Pre-Decrement \n";
16      cout << "\t\t --------------------";
17      number = 10; //--------re-initialize to 10
18      //------------------------------(pre-decrement)-----------------------------------------
19      cout <<"\n\t\t The Number is : "<< --number <<"\n\n\n\n";
20
21      return 0;
22  }
```

Compiler | Resources | Compile Log | Debug | Find Results | Close

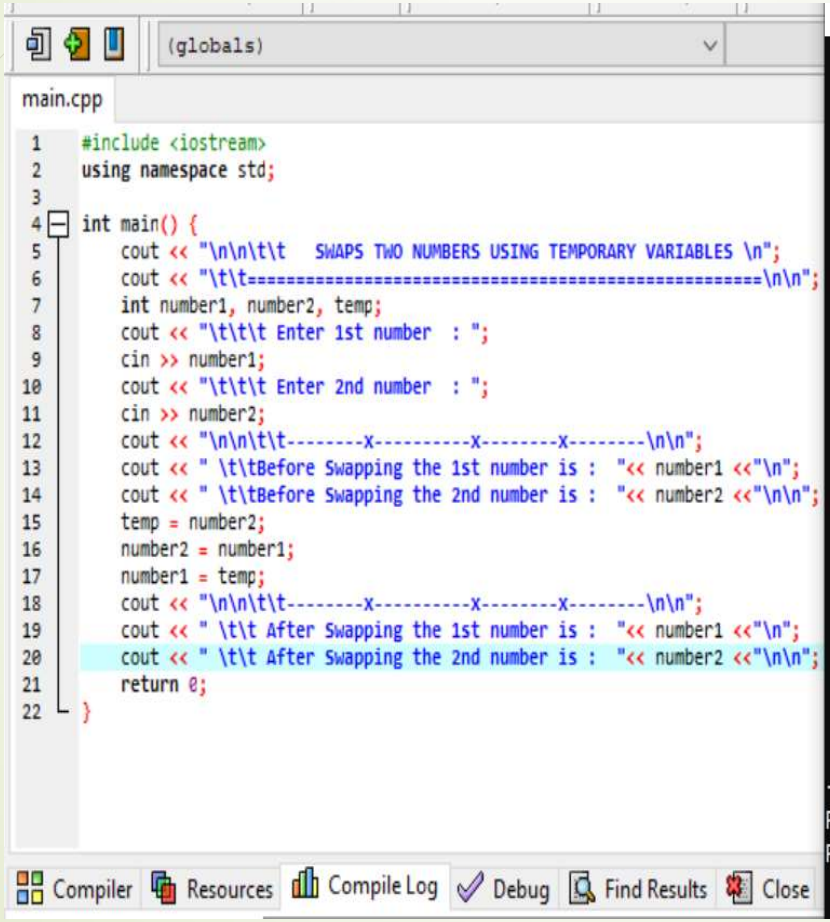
Abort Compilation

Compilation results...

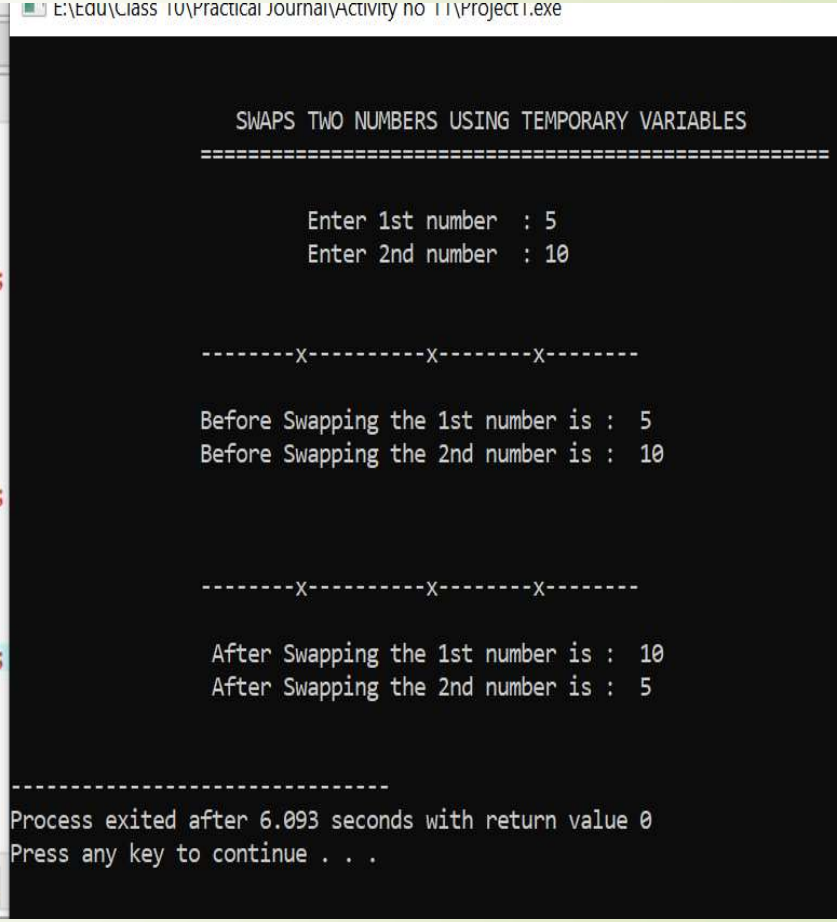
E:\Edu\Class 10\Practical Journal\Activity no 10\Project2.exe

```
                PRE-DECREMENT AND POST-DECREMENT
============================================================


                The original Number = 10

        -------x----------x----------x-------
                Result of Post-Decrement
                --------------------
                The Number is : 10


        -------x----------x----------x-------
                Result of Pre-Decrement
                --------------------
                The Number is : 9



------------------------------
Process exited after 0.09768 seconds with return value 0
Press any key to continue . . .
```

Activity No. 11

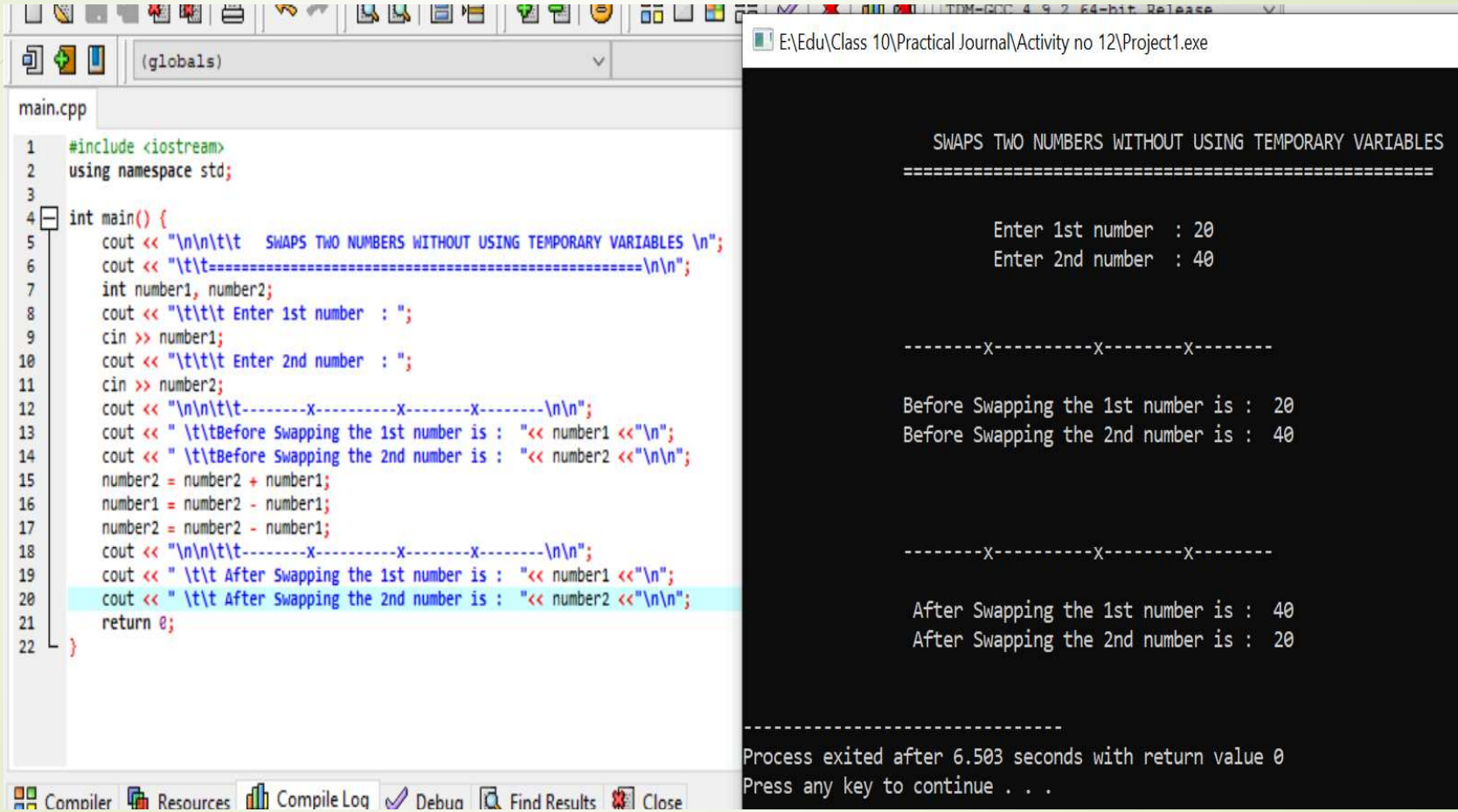


```
(globals)

main.cpp

1   #include <iostream>
2   using namespace std;
3
4   int main() {
5       cout << "\n\n\t\t   SWAPS TWO NUMBERS USING TEMPORARY VARIABLES \n";
6       cout << "\t\t=======================================================\n\n";
7       int number1, number2, temp;
8       cout << "\t\t\t Enter 1st number  : ";
9       cin >> number1;
10      cout << "\t\t\t Enter 2nd number  : ";
11      cin >> number2;
12      cout << "\n\n\t\t--------x----------x--------x--------\n\n";
13      cout << " \t\tBefore Swapping the 1st number is :  "<< number1 <<"\n";
14      cout << " \t\tBefore Swapping the 2nd number is :  "<< number2 <<"\n\n";
15      temp = number2;
16      number2 = number1;
17      number1 = temp;
18      cout << "\n\n\t\t--------x----------x--------x--------\n\n";
19      cout << " \t\t After Swapping the 1st number is :  "<< number1 <<"\n";
20      cout << " \t\t After Swapping the 2nd number is :  "<< number2 <<"\n\n";
21      return 0;
22  }

Compiler  Resources  Compile Log  Debug  Find Results  Close
```



```
E:\Edu\Class 10\Practical Journal\Activity no 11\Project1.exe

                SWAPS TWO NUMBERS USING TEMPORARY VARIABLES
=======================================================

                Enter 1st number  : 5
                Enter 2nd number  : 10


--------x----------x--------x--------

Before Swapping the 1st number is :  5
Before Swapping the 2nd number is :  10



--------x----------x--------x--------

 After Swapping the 1st number is :  10
 After Swapping the 2nd number is :  5


------------------------------
Process exited after 6.093 seconds with return value 0
Press any key to continue . . .
```

Activity No. 12



```
(globals)

main.cpp

1   #include <iostream>
2   using namespace std;
3
4   int main() {
5       cout << "\n\n\t\t   SWAPS TWO NUMBERS WITHOUT USING TEMPORARY VARIABLES \n";
6       cout << "\t\t=====================================================\n\n";
7       int number1, number2;
8       cout << "\t\t\t Enter 1st number  : ";
9       cin >> number1;
10      cout << "\t\t\t Enter 2nd number  : ";
11      cin >> number2;
12      cout << "\n\n\t\t--------x----------x--------x--------\n\n";
13      cout << " \t\tBefore Swapping the 1st number is :  "<< number1 <<"\n";
14      cout << " \t\tBefore Swapping the 2nd number is :  "<< number2 <<"\n\n";
15      number2 = number2 + number1;
16      number1 = number2 - number1;
17      number2 = number2 - number1;
18      cout << "\n\n\t\t--------x----------x--------x--------\n\n";
19      cout << " \t\t After Swapping the 1st number is :  "<< number1 <<"\n";
20      cout << " \t\t After Swapping the 2nd number is :  "<< number2 <<"\n\n";
21      return 0;
22  }

Compiler  Resources  Compile Log  Debug  Find Results  Close
```

```
E:\Edu\Class 10\Practical Journal\Activity no 12\Project1.exe

   SWAPS TWO NUMBERS WITHOUT USING TEMPORARY VARIABLES
=====================================================

         Enter 1st number  : 20
         Enter 2nd number  : 40


--------x----------x--------x--------

 Before Swapping the 1st number is :  20
 Before Swapping the 2nd number is :  40



--------x----------x--------x--------

 After Swapping the 1st number is :  40
 After Swapping the 2nd number is :  20


------------------------------
Process exited after 6.503 seconds with return value 0
Press any key to continue . . .
```

Activity No. 13

main.cpp

```cpp
#include <iostream>
using namespace std;
int main() {
    cout << "\n\n\t\t   ADD, SUBTRACT, MULTIPLY AND DIVIDE TWO NUMBERS USING ARITHEMATIC OPERATOR \n";
    cout << "\t\t=============================================================================\n\n";
    int number1, number2, result;
    cout << "\t\t\t\t Enter 1st Number : ";
    cin >> number1;
    cout << "\t\t\t\t Enter 2nd Number : ";
    cin >> number2;
    cout << "\n\n\t\t\t\t--------x----------x--------x--------x--------\n\n";
    result = number1 + number2;
    cout << "\t\t\t\t The Result of Number1 + Number2 : "<<result <<"\n";
    result = number1 - number2;
    cout << "\t\t\t\t The Result of Number1 - Number2 : "<<result <<"\n";
    result = number1 * number2;
    cout << "\t\t\t\t The Result of Number1 * Number2 : "<<result <<"\n";
    result = number1 / number2;
    cout << "\t\t\t\t The Result of Number1 / Number2 : "<<result <<"\n";
    return 0;
}
```

```
   ADD, SUBTRACT, MULTIPLY AND DIVIDE TWO NUMBERS USING ARITHEMATIC OPERATOR
================================================================================

                Enter 1st Number : 40
                Enter 2nd Number : 20


               --------x----------x--------x--------x--------

                The Result of Number1 + Number2 : 60
                The Result of Number1 - Number2 : 20
                The Result of Number1 * Number2 : 800
                The Result of Number1 / Number2 : 2

------------------------------
Process exited after 14.01 seconds with return value 0
Press any key to continue . . .
```

Activity No. 14

```cpp
#include <iostream>
using namespace std;
int main() {
    cout << "\n\n\t\t     CALCULATE THE TOTAL AND AVERAGE OF SIX NUMBERS \n";
    cout << "\t\t==========================================================================\n\n";
    int number1,number2,number3,number4,number5,number6,total;
    float avg;
    cout << "\t\t\t\t Enter 1st number : ";
    cin >> number1;
    cout << "\t\t\t\t Enter 2nd number : ";
    cin >> number2;
    cout << "\t\t\t\t Enter 3rd number : ";
    cin >> number3;
    cout << "\t\t\t\t Enter 4th number : ";
    cin >> number4;
    cout << "\t\t\t\t Enter 5th number : ";
    cin >> number5;
    cout << "\t\t\t\t Enter 6th number : ";
    cin >> number6;
    cout <<"\n\n\t\t\t\t\t--------x----------x--------x--------x--------\n\n";
    total = number1 + number2 + number3 + number4 + number5 + number6;
    cout << "\t\t\t\t The Total is equal to : "<< total <<"\n";
    avg = total / 6;
    cout << "\t\t\t\t The Average is equal to : "<< avg <<"\n\n\n";
    return 0;
}
```

Compiler | Resources | Compile Log | Debug | Find Results | Close

```
        CALCULATE THE TOTAL AND AVERAGE OF SIX NUMBERS
==========================================================================

                Enter 1st number : 2
                Enter 2nd number : 3
                Enter 3rd number : 4
                Enter 4th number : 5
                Enter 5th number : 6
                Enter 6th number : 7


              --------x----------x--------x--------x--------

                The Total is equal to : 27
                The Average is equal to : 4


------------------------------
Process exited after 13.93 seconds with return value 0
Press any key to continue . . .
```

Activity No. 15

```cpp
#include <iostream>
using namespace std;
int main() {
    int number;
    cout << "\n\n\t\t\t\t CHECK WHETHER THE NUMBER IS POSITIVE , NEGATIVE OR ZERO \n";
    cout << "\t\t\t\t=============================================================\n";
    cout << "\t\t\t\t\t\t Enter a number : ";
    cin >> number;
    if(number > 0)
    {
        cout << "\n\n\t\t\t\t\t\t The Number is Positive.";
    }
    else if(number < 0)
    {
        cout << "\n\n\t\t\t\t\t\t The Number is Negative.\n\n";
    }
    else {
        cout << "\n\n\t\t\t\t\t\t The Number is Zero.\n\n";
    }
    return 0;
}
```

```
E:\Edu\Class 10\Practical Journal\Activity no 15\Project1.exe

                                CHECK WHETHER THE NUMBER IS POSITIVE , NEGATIVE OR ZERO
                               =============================================================
                                        Enter a number : 5


                                        The Number is Positive.

--------------------------------
Process exited after 9.896 seconds with return value 0
Press any key to continue . . .
```

Activity No. 16

```cpp
#include <iostream>
using namespace std;
int main() {
    int radius;
    float vol_sp;
    cout << "\n\n\t\t\t\t CALCULATE THE VOLUME OF A SPHERE \n";
    cout << "\t\t\t==================================================\n";
    cout << "\t\t\t Enter the radius of a sphere : ";
    cin >> radius;
    vol_sp = (4*3.14*radius*radius*radius)/3;
    cout << "\n\n\t\t\t The volume of a sphere is : "<< vol_sp <<"\n\n\n\n";

    return 0;
}
```

```
E:\Edu\Class 10\Practical Journal\Activity no 16\Project1.exe

                    CALCULATE THE VOLUME OF A SPHERE
                ==================================================
                 Enter the radius of a sphere : 6


                 The volume of a sphere is : 904.32



--------------------------------
Process exited after 3.612 seconds with return value 0
Press any key to continue . . .
```

Activity No. 17

```cpp
#include <iostream>
using namespace std;
int main() {
    int side;
    float vol_cube;
    cout << "\n\n\t\t\t\t CALCULATE THE VOLUME OF A CUBE \n";
    cout << "\t\t\t==================================================\n";
    cout << "\t\t\t Enter the side of a Cube : ";
    cin >> side;
    vol_cube = (side*side*side);
    cout << "\n\n\t\t\t The volume of a Cube is : "<< vol_cube << "\n\n\n\n";

    return 0;
}
```

```
E:\Edu\Class 10\Practical Journal\Activity no 17\Project1.exe

                    CALCULATE THE VOLUME OF A CUBE
                ==================================================
                 Enter the side of a Cube : 7


                 The volume of a Cube is : 343



--------------------------------
Process exited after 5.042 seconds with return value 0
Press any key to continue . . .
```

Activity No. 18

```cpp
#include <iostream>
using namespace std;
int main() {
    int height,radius;
    float vol_cyl;
    cout << "\n\n\t\t\t\t CALCULATE THE VOLUME OF A CYLINDER \n";
    cout << "\t\t\t==================================================\n";
    cout << "\t\t\t Enter the radius of a cylinder : ";
    cin >> radius;
    cout << "\t\t\t Enter the height of a cylinder : ";
    cin >> height;
    vol_cyl = (3.14*radius*radius*height);
    cout << "\n\n\t\t\t The volume of a Cylinder is : "<< vol_cyl << "\n\n\n\n";

    return 0;
}
```

```
E:\Edu\Class 10\Practical Journal\Activity no 18\Project1.exe

                    CALCULATE THE VOLUME OF A CYLINDER
                ==================================================
                 Enter the radius of a cylinder : 7
                 Enter the height of a cylinder : 9


                 The volume of a Cylinder is : 1384.74



--------------------------------
Process exited after 33.61 seconds with return value 0
Press any key to continue . . .
```

Activity No. 19

```cpp
#include <iostream>
using namespace std;
int main(){
    int length, width, area;
    cout << "\n\n\t\t\t\t CALCULATE THE AREA OF A RECTANGLE \n";
    cout << "\t\t\t==================================================\n";
    cout << "\t\t\t Enter the length : ";
    cin >>length;
    cout << "\t\t\t Enter the width : ";
    cin >>width;
    area = (length * width);
    cout << "\n\n\t\t\t The Area of a Rectangle is : "<< area<<"\n\n\n\n";

    return 0;
}
```

```
E:\Edu\Class 10\Practical Journal\Activity no 19\Project1.exe

                    CALCULATE THE AREA OF A RECTANGLE
                ==================================================
                 Enter the length : 5
                 Enter the width : 8


                 The Area of a Rectangle is : 40



--------------------------------
Process exited after 6.2 seconds with return value 0
Press any key to continue . . .
```

Activity No. 20

```cpp
#include <iostream>
using namespace std;
int main(){
    float km, meter, cent;
    cout << "\n\n\t\t\t CONVERT CENTIMETER INTO METER AND KILOMETER \n";
    cout << "\t\t============================================================\n\n";
    cout << "\t\t\t Enter the value in centimeter : ";
    cin >>cent;
    meter = (cent / 100);
    km = (cent/100000);
    cout << "\n\n\t\t The value in meter is : "<< meter<<"\n\n";
    cout << "\n\n\t\t The value in kilometer is : "<< km<<"\n\n";

    return 0;
}
```

```
E:\Edu\Class 10\Practical Journal\Activity no 20\Project1.exe

                    CONVERT CENTIMETER INTO METER AND KILOMETER
                ============================================================

                    Enter the value in centimeter : 20


                 The value in meter is : 0.2


                 The value in kilometer is : 0.0002


--------------------------------
Process exited after 2.47 seconds with return value 0
Press any key to continue . . .
```

Activity No. 21

```cpp
#include <iostream>
using namespace std;
int main() {
    float fh, cel;
    cout << "\n\n\t\t\t CONVERT TEMPERATURE FROM FARHENHEIT TO CELSIUS \n";
    cout << "\t\t============================================================\n\n";
    cout << "\t\t Enter the value in Farhenheit : ";
    cin >> fh;
    cel = ((fh*5.0)-(5.0*32))/9;
    cout << "\n\n\t\t The value in Farhenheit is : "<<fh<<"\n\n";
    cout << "\t\t The value of celsius is : "<<cel<<"\n\n";
    return 0;
}
```

```
E:\Edu\Class 10\Practical Journal\Activity no 21\Project1.exe

                CONVERT TEMPERATURE FROM FARHENHEIT TO CELSIUS
              ============================================================

               Enter the value in Farhenheit : 30


               The value in Farhenheit is : 30

               The value of celsius is : -1.11111


--------------------------------
Process exited after 10.75 seconds with return value 0
Press any key to continue . . .
```

Activity No. 22

```cpp
#include <iostream>
using namespace std;
int main() {
    float fh, kelvin;
    cout << "\n\n\t\t\t CONVERT TEMPERATURE FROM KELVIN TO FARHENHEIT \n";
    cout << "\t\t============================================================\n\n";
    cout << "\t\t Enter the value in Kelvin : ";
    cin >> kelvin;
    fh = (9.0/5)*(kelvin - 273.15)+ 32;
    cout << "\n\n\t\t The value in Kelvin is : "<<kelvin<<"\n\n";
    cout << "\t\t The value in Farhenheit is : "<<fh<<"\n\n";
    return 0;
}
```

```
E:\Edu\Class 10\Practical Journal\Activity no 22\Project1.exe

                    CONVERT TEMPERATURE FROM KELVIN TO FARHENHEIT
                ============================================================

                 Enter the value in Kelvin : 44


                 The value in Kelvin is : 44

                 The value in Farhenheit is : -380.47


--------------------------------
Process exited after 3.829 seconds with return value 0
Press any key to continue . . .
```

Activity No. 23

```cpp
#include <iostream>
using namespace std;
int main() {
    float Kelvin, cel;
    cout << "\n\n\t\t\t CONVERT TEMPERATURE FROM KELVIN TO CELSIUS \n";
    cout << "\t\t=============================================================\n\n";
    cout << "\t\t Enter the value in Kelvin : ";
    cin >> Kelvin;
    cel = Kelvin-273.15;
    cout << "\n\n\t\t The value in Kelvin is : "<<Kelvin<<"\n\n";
    cout << "\t\t The value of celsius is : "<<cel<<"\n\n";
    return 0;
}
```

```
E:\Edu\Class 10\Practical Journal\Activity no 23\Project1.exe

                    CONVERT TEMPERATURE FROM KELVIN TO CELSIUS
                ============================================================

                 Enter the value in Kelvin : 60


                 The value in Kelvin is : 60

                 The value of celsius is : -213.15


--------------------------------
Process exited after 5.86 seconds with return value 0
Press any key to continue . . .
```

Activity No. 24

```cpp
#include <iostream>
using namespace std;
int main() {
    float fh,kelvin;
    cout << "\n\n\t\t\t CONVERT TEMPERATURE FROM FAHRENHEIT TO KELVIN \n";
    cout << "\t\t=============================================================\n\n";
    cout << "\t\t Enter the value in fahrenheit : ";
    cin >> fh;
    kelvin = (5.0 / 9) * (fh - 32) + 273.15;
    cout << "\n\n\t\t The value in Fahrenheit is : "<<fh<<"\n\n";
    cout << "\t\t The value of kelvin is : "<<kelvin<<"\n\n";
    return 0;
}
```

```
E:\Edu\Class 10\Practical Journal\Activity no 24\Project1.exe

                    CONVERT TEMPERATURE FROM FAHRENHEIT TO KELVIN
                ============================================================

                 Enter the value in fahrenheit : 55


                 The value in Fahrenheit is : 55

                 The value of kelvin is : 285.928


--------------------------------
Process exited after 11.47 seconds with return value 0
Press any key to continue . . .
```

Activity No. 25

```cpp
#include <iostream>
using namespace std;
int main() {
    float cel,kelvin;
    cout << "\n\n\t\t\t CONVERT TEMPERATURE FROM CELSIUS TO KELVIN \n";
    cout << "\t\t=============================================================\n\n";
    cout << "\t\t Enter the value in celsius : ";
    cin >> cel;
    kelvin = cel + 273.15;
    cout << "\n\n\t\t The value in Celsius is : "<<cel<<"\n\n";
    cout << "\t\t The value in kelvin is : "<<kelvin<<"\n\n";
    return 0;
}
```

```
E:\Edu\Class 10\Practical Journal\Activity no 25\Project1.exe

                    CONVERT TEMPERATURE FROM CELSIUS TO KELVIN
                ================================================================

                 Enter the value in celsius : 44


                 The value in Celsius is : 44

                 The value in kelvin is : 317.15


--------------------------------
Process exited after 2.344 seconds with return value 0
Press any key to continue . . .
```

Activity No. 26

main.cpp

```cpp
#include <iostream>
using namespace std;
int main() {
    int number,i=0;
    cout << "\n\n\t\t\t\t MULTIPLES OF A NUMBER UPTO 10 \n";
    cout << "\t\t\t==========================================================\n";
    cout << "\t\t\t\t Enter a number : ";
    cin >> number;
    for (i=1;i<=10;i++){
        cout << "\n\t\t\t\t"<<number<<"  x  "<< i << "  =  "<<number*i<<"\n";
    }
    return 0;
}
```

Compiler | Resources | Compile Log | Debug | Find Results | Close

Abort Compilation

```
Compilation results...
--------
- Errors: 0
- Warnings: 0
```

```
                MULTIPLES OF A NUMBER UPTO 10
==========================================================
                Enter a number : 5

                5  x  1  =  5

                5  x  2  =  10

                5  x  3  =  15

                5  x  4  =  20

                5  x  5  =  25

                5  x  6  =  30

                5  x  7  =  35

                5  x  8  =  40

                5  x  9  =  45

                5  x  10  =  50

--------------------------------
Process exited after 6.432 seconds with return value 0
Press any key to continue . . .
```

Activity No. 27

```
1   #include <iostream>
2   using namespace std;
3   int main() {
4       int n, i, j;
5       n=5;
6       for(i = 1; i <= n; i++){
7           for(j = 1; j <= i; j++){
8               cout << "* ";
9           }
10          cout<<"\n";
11      }
12      return 0;
13  }
```

```
E:\Edu\Class 10\Practical Journal\Activity no 27\Project1.exe
*
* *
* * *
* * * *
* * * * *

--------------------------------
Process exited after 0.1165 seconds with return value 0
Press any key to continue . . .
```

Activity No. 28

```cpp
#include <iostream>
using namespace std;
int main() {
    int n, i, j;
    n=5;
    for(i = n; i >= 1; i--){
        for(j = 1; j <= i; j++){
            cout << "* ";
        }
        cout<<"\n";
    }
    return 0;
}
```

```
E:\Edu\Class 10\Practical Journal\Activity no 28\Project1.exe
* * * * *
* * * *
* * *
* *
*

--------------------------------
Process exited after 0.1106 seconds with return value 0
Press any key to continue . . .
```

Activity No. 29

```cpp
#include <iostream>
#include <algorithm>
using namespace std;
int main() {
    int num[10];
    cout << "\n\n\t\t\t\t DESCENDING SORTING \n";
    cout << "\t\t\t====================================\n";
    cout << "\t\t\t\t Enter Numbers: ";
    for (int i = 0; i <= 9; i++){
        cin >> num[i];
        cout <<"\t\t\t\t\t\t\t";
    }
    sort(num, num+10);
    cout << "\n\t\t\t==================\n\n";

cout << "\t\t\t"<< num[9]<<" "<< num[8]<<" "<< num[7]<<" "<< num[6]<<" "<< num[5]<<" "<< num[4]<<" "<< num[3]<<" "<< num[2]<<" "<< num[1]<<" "<< num[0]<<" ";

        cout << "\n\t\t\t==================";


    return 0;
}
```

```
E:\Edu\Class 10\Practical Journal\Activity no 29\Project1.exe

                        DESCENDING SORTING
                    ====================================
                        Enter Numbers: 0
                                       1
                                       2
                                       3
                                       4
                                       5
                                       6
                                       7
                                       8
                                       9


                    ==================

                    9 8 7 6 5 4 3 2 1 0
                    ==================
--------------------------------
Process exited after 8.998 seconds with return value 0
Press any key to continue . . .
```

Activity No. 30

```cpp
#include <iostream>
#include <algorithm>
using namespace std;
int main() {
    int num[10];
    cout << "\n\n\t\t\t\t ASCENDING SORTING \n";
    cout << "\t\t\t=================================================\n";
    cout << "\t\t\t\t Enter Numbers: ";
    for (int i = 0; i <= 9; i++){
        cin >> num[i];
        cout <<"\t\t\t\t\t\t";
    }
    sort(num, num+10);
    cout << "\n\t\t\t\t=======================\n\n";

cout << "\t\t\t"<< num[0]<<" "<< num[1]<<" "<< num[2]<<" "<< num[3]<<" "<< num[4]<<" "<< num[5]<<" "<< num[6]<<" "<< num[7]<<" "<< num[8]<<" "<< num[9]<<" ";

        cout << "\n\t\t\t\t=======================";


    return 0;
}
```

```
E:\Edu\Class 10\Practical Journal\Activity no 30\Project1.exe

                ASCENDING SORTING
        ================================================
                Enter Numbers: 9
                               8
                               7
                               6
                               5
                               4
                               3
                               2
                               1
                               0


        =======================

        0 1 2 3 4 5 6 7 8 9
        =======================
--------------------------------
Process exited after 15.23 seconds with return value 0
Press any key to continue . . .
```

Activity No. 31

```cpp
#include <iostream>
using namespace std;

int factorial(int number) {
    if (number == 0)
        return 1;
    else
        return number * factorial(number - 1);
}

int main() {
    int number;
    cout << "\n\n\t\t\t\t FACTORIAL OF A NUMBER \n";
    cout << "\t\t\t============================================================\n";
    cout << "\n\t\t Enter a Number :";
    cin >> number;
    cout << "\n\t\t Factorial of " << number<< " is : " << factorial(number) <<"\n\n";

    return 0;
}
```

```
E:\Edu\Class 10\Practical Journal\Activity no 31\Project1.exe

                        FACTORIAL OF A NUMBER
                ============================================================

                Enter a Number :5

                Factorial of 5 is : 120


--------------------------------
Process exited after 6.287 seconds with return value 0
Press any key to continue . . .
```

Activity No. 32

CREATE TRUTH TABLE OF AND & OR LOGIC GATES USING THREE INPUTS

TRUTH TABLE:

INPUT 1	INPUT 2	INPUT 3	AND	OR
0	0	0	0	0
0	0	1	0	1
0	1	0	0	1
0	1	1	0	1
1	0	0	0	1
1	0	1	0	1
1	1	0	0	1
1	1	1	1	1

MADE BY HASSAN QAMAR: