Program 1:

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

int main()
{
        int x = -1;
        //Some code
        cout<< "Before try \n";
        try {
                cout << "Im inside the try block\n ";
                if(x < 0)
                {
                        cout << "------------------------- \n";
                        cout << "Condition inside if is  true lets throw an exception to the catch block \n";
                        throw x;
                        cout << "After throw (Never executed) \n";
                }
        }
        catch (int x){
                cout << "-------------------------- \n";
                cout << "Hey Exception Caught in catch block on integer number \n";
                cout << "The number is: "<<x<<endl;
        }
        cout << "After catch (Will be executed) \n";
        return 0;
}
```

Program 2:

```cpp
#include <iostream>
using namespace std;
int main()
{
        try {
                int n=5;
        long factorial = 1;
        if (n<0)
        {
                throw 505;
        }
        else
        {
                for(int i =1; i <= n; ++i)
                {
                        factorial *=i;
                }
                cout << "Factorial of " << n << " = " << factorial;
        }
}
catch(int n)
{
        cout << "Error! Factorial of a negative number doesnt exist."<<endl;
}
return 0;
}
```

Program 3:

```cpp
#include <iostream>
using namespace std;
int main()
{
        try {
                int n=-5;
        long factorial = 1;
        if (n<0)
        {
                throw 505;
        }
        else
        {
                for(int i =1; i <= n; ++i)
                {
                        factorial *=i;
                }
                cout << "Factorial of " << n << " = " << factorial;
        }
}
catch(int n)
{
        cout << "Error! Factorial of a negative number doesnt exist."<<endl;
}
return 0;
}
```

Program 4:

```cpp
#include <iostream>
```

```cpp
using namespace std;

int main()

{

        try {

                int age = 15;

        if (age >= 18)

        {

                cout << "Access granted - you areold enough. ";

        }

        else

        {

                throw 505;

        }

}

catch(int myNum)

{

        cout << "Access denied - You must be at least 18 years old.\n";

        cout << "Error number: " << myNum;

}

return 0;

}
```

Lab 1

```cpp
#include <iostream>

using namespace std;

int main()

{

   try

        {

     cout << "Enter a string: ";
```

```cpp
        string input;
        cin >> input;


        for (char ch : input)
                {
          if (ch == 'm' || ch == 'M')
                        {
            throw runtime_error("Exception: Found 'm' or 'M' in the string.");
          }
        }


        cout << "No 'm' or 'M' found in the string." << endl;
    }
        catch (const exception& e)
        {
      cerr << e.what() << endl;
    }
    return 0;
}
```

Lab 2

```cpp
#include <iostream>
using namespace std;
int main()
{
    double temp;


    cout << "Enter the temperature in centigrade: ";
    cin >> temp;
```

```cpp
    if (temp < 0) {

        cout << "Freezing weather." << endl;

    } else if (temp >= 0 && temp <= 10) {

        cout << "Very Cold weather." << endl;

    } else if (temp > 10 && temp <= 20) {

        cout << "Cold weather." << endl;

    } else if (temp > 20 && temp <= 30) {

        cout << "Normal in Temp." << endl;

    } else if (temp > 30 && temp <= 40) {

        cout << "It's Hot." << endl;

    } else {

        cout << "Its Very Hot." << endl;

    }

    return 0;

}
```