Hands-On Activity 6.1 – Search within data Arrays	
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```cpp
#include<iostream>
#include<iomanip>
#include<string>
using namespace std;
class Error {};

double Errorarr(double a, double b)
{
    if (b < 0)
        throw(string)"Error! Element not found!\n";
    else if (a < 0)
    {
        Error empty;
        throw empty;
    }
}
double input(int IN)
{
    if (cin.fail())
        throw IN;
}

int main()
{
    int arr[10], i, num, n, a, inpt, arrays = 0, res;
    bool arraybool = false;
    do {
        try {
            cout << "\n How many numbers you want to enter? ";
```

```cpp
int main()
{
    int arr[10], i, num, n, a, inpt, arrays = 0, res;
    bool arraybool = false;
    do {
        try {
            cout << "\n How many numbers you want to enter? ";
            cin >> n;
            inpt = input(n);
            cout << "\n Enter the numbers: \n";
            for (i = 0; i < n; i++)
            {
                cout << " ";
                cin >> arr[i];
            }
            cout << "\n Enter the element you want to find : ";
            cin >> num;
            inpt = input(num);
            a = Errorarr(n, num);
            for (i = 0; i < n; i++)
            {
                if (arr[i] == num)
                {
                    arrays = 1;
                    res = i + 1;
                    break;
                }
            }
```

```cpp
                    break;
                }
            }
            if (arrays != 0)
            {
                cout << "\n The Element " << num << " Is Found At Position " << res << '\n';
            }
            arraybool = true;
        }
        catch (string& s)
        {
            cerr << s << endl;
            system("pause");
            system("cls");
        }
        catch (Error&)
        {
            cerr << "Error! Element not found!\n";
            system("pause");
            system("cls");
        }
        catch (...)
        {
            cerr << "Please put an integer only! \n\n";
            system("pause");
            system("cls");
        }
    } while (!arraybool);
}
```

How Many Numbers You Want to Enter? SKZ
Please Put an Integer Only!

Press any key to continue . . . _

```
How many numbers you want to enter? 10

Enter the numbers:
2
4
6
8
10
1
3
5
7
9

Enter the element you want to find : 8

The Element 8 Is Found At Position 4
```

```
How Many Numbers You Want to Enter? 10

Enter The Numbers:
1
2
3
4
5
6
7
8
9
10

Enter The Element You Want to Find : -8
Error! Element Not Found!

Press any key to continue . . .
```

Conclusions:

In this activity, I learned about the array and how to search the data or an element within an array. I found out that an array in C++ is a collection of data or an element of the same type. When calling or declaring an array, the user must include the size of it. For example, if you type "array[10]", then that means that you can enter values ten(10) times. Also, I've included the error handling in this activity in case that the user puts unnecessary values.

I affirm that I will not give or receive any unauthorized help in this activity/exam and all work will be my own.