Chapter 8

Program Challenge 1.

Initialize an int array in **main()**. Call **isFound()** function, which is a *boolean*. **isFound()** loops through all elements in array, returning **true** only if any element is equal to the user provided number. Otherwise it returns **false**. **isFound()** accepts as parameter **const** array, because it should not change the elements inside the array.

```cpp
// Jorge Rivas
#include <iostream>
#include <iomanip>
using namespace std;

bool isFound(const int[], int, int);

int main()
{
        int accounts[18] = { 5658845, 4520125, 7895122,
                                     8777541, 8451277, 1302850,
                                     8080152, 4562555, 5552012,
                                     5050552, 7825877, 1250255,
                                     1005231, 6545231, 3852085,
                                     7576651, 7881200, 4581002 };


        int usernumber;
        cout << "Please enter number to search:\n";
        cin >> usernumber;

        if (isFound(accounts, 18, usernumber))
                cout << usernumber << " is a valid number!\n";
        else
                cout << usernumber << " is not a valid number!\n";

        return 0;
}

bool isFound(const int numbers[], int arraySize, int usernumber)
{
        for (int counter = 0; counter < arraySize; counter++)
        {
                if (numbers[counter] == usernumber)
                        return true;
        }
        return false;
}
```

```
Please enter number to search:
10
10 is not a valid number!

C:\Users\jorge\source\repos\Project10\Debug\Project10.exe (process 46956) exited with code 0.
To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the console when debugging stops.
Press any key to close this window . . .
```

```
Please enter number to search:
5658845
5658845 is a valid number!

C:\Users\jorge\source\repos\Project10\Debug\Project10.exe (process 11456) exited with code 0.
To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the console when debugging stops.
Press any key to close this window . . .
```