

## Lecture 5.3

### Topics

#### 1. Input Validation – Brief

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At times, input data will be provided before the next steps of program execution can take place. It is important to verify the validity of the given input value. This process is called input validation.

- Input validation is the process of inspecting data that is given to the program as input and determining whether it is valid.
- The while loop can be used to create input routines that reject invalid data, and repeat until valid data is entered.

The general steps would be as follows,

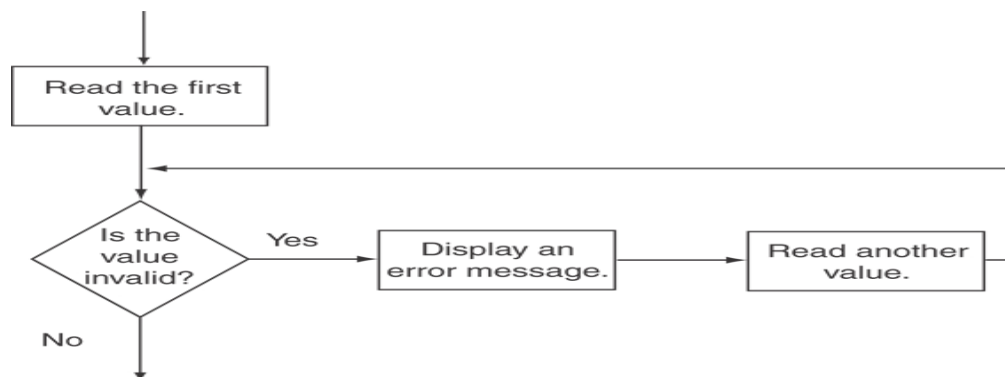
```
read an item of input.
while the input is invalid
  display an error message.
  read the input again.
end while
```

#### Example

```
cout << "Enter a number less than 10: ";
cin >> iNumber;

while ( iNumber >= 10 ) {
  cout << "Invalid Entry!"
    << "Enter a number less than 10: ";
  cin >> iNumber;
}
```

The flowchart is given below.



**Figure 1** Simplistic view of data input and validation