

Data Validation & Verification

☰ Chapter No.	18
▼ Status	Completed

▼ **Data validation** is a process to ensure that the data provided as inputs to a program conforms with specific requirements to prevent technical errors

- More often than not, a programmer **does not have any control** over the **inputs supplied to a program** as these inputs can come from many sources
- Data validation is used to ensure that the **data entered does not cause errors in the program**

▼ 5 Data Validation Techniques

▼ Range Check

- Range check is a process that **limits an input to a particular range of values**

▼ Format Check

- Format check is a process that ensures that an **input matches a required data type**

▼ Length Check

- Length check is a process that **limits an input to a certain length or range of lengths**

▼ Presence Check

- Presence check is a process that ensures that a **required input is supplied and not left empty**

▼ Check Digit

- A check digit is a **redundant character** calculated from the digits of an identification number that is used as form of **redundancy check** and as a form of **error detection on identification numbers**

- It consists of one or more digits computed by an algorithm from the other digits or letters in the data
- If there is an error in the digits or letters in the data, the check digit will be incorrect and inconsistent with its specification

▼ **Data verification** is a process in which data is checked for accuracy and consistency after data migration

- Data verification is used to ensure that the data entered is what the user intended to enter

▼ 2 Data Verification Techniques

▼ Double Entry

- Double entry is a process that asks a user to enter the required data twice

▼ Proofreading Data

- Proofreading data is a process that checks the entered data against the existing database