

Data Verification and Validation

Back-to-Basics Series

Data Verification

- Verification – to ensure that the data entered exactly matches the original source.
- Prevent error from data entry by requiring double entry, eg change/setup of password

Change password

Please note that when changing your password, we ask you to set yourself a secure password that contains both uppercase and lowercase letters as well as numbers. This is for your own safety.

Current password	<input type="password"/>
New password	<input type="password"/> Minimum 8 characters.
Confirm password	<input type="password"/>

Change password

Data Validation

- Validation – to check to ensure that the data entered is sensible and reasonable. It does not check the accuracy of data.

Validation Techniques

- Check digit

: the last one or two digits in a code are used to check other digits are correct.

eg NRIC, ISBN, Car plate no., Bar code

- Format check

: check that the data is in the correct format.

eg ddmmmyyyy, NRIC

Validation Techniques

- Length check

: check that the data is of certain length.

eg 8 digit hp no., 16 digit credit card no.

- Lookup table or Drop-down menu

: looks up the acceptable values in a table.

eg a list of valid school names, road name, days of the week (Sun-Sat), Mr/Ms/Dr/Mdm

Validation Techniques

- Type check
: check that the user has entered only alpha-numeric data in the string.
eg `isdigit()`, `isalpha()`
- Spell check or Autocorrect
: check user entry against a dictionary.
- eg technical terms or product names

Validation Techniques

- Presence check

: check a require key field(s) in the database is not left as null.

- Range check

: check the data is within a restricted range of valid value..

eg $0 < \text{age} < 99$, $0.5 < \text{height} < 2.5$