Data Validation Function

Purpose of this exercise to develop a function repository of generic validations for fields.

The data validation can be categorized in following:

- 1. Data type
- 2. Data length
- 3. Special Characters
- 4. Domain Value
- 5. Format Validation
- 6. Special Validation Like E-mail validation

While writing the function please take care of following

- Develop a repository of generic functions that we can use for validating the fields .
- Following validations needs to be developed

Data Type Validation

- The function should take as input the field value and the data type to be tested.
- For example if we want to check if the customer id is numeric of not then we should be able to
 pass the customer id and the data type i.e. "Numeric" as input parameter and the function
 should return true in case the customer is passed in numeric otherwise false should be returned.
- The function should have provision for validating all type of data type.

Data length

- The function will be used to validate the maximum length of the field.
- For example if the customer id in the database is of 10 digits, the function should take input parameters as customer id value and the maximum length, the function should return true if the customer id size is less than or equal to the maximum length passed in the function else the function should return false.

Special Characters

- This validation will be used in the cases where we want to restrict the usage of certain special characters in the field value.
- For example Customer name cannot contain a special characters @#\$\%^, the function should take input as the field value and the special characters restricted for that field value.
- The function should return true if the restricted characters are nor present in the value passed else the function should return false.

Domain Value

- The application has certain fields which have fixed values which it can take. For example Day in week can contain Monday to Friday.
- The function should take as input the field value and the list of values valid value. The function should check that the field value passed is one of the values passed in the valid list. The function should return true if the field value passed is in the list of values else false should be returned.

Format Validation

- This validation is used in case of date fields.
- The input of the function should be field value and the format which we need to validate.
- It should return true in case the value passed in the format provided. Else false should be returned.

Validate E-mail

- This validation is used in case of e-mail id field
- The value passed should follow following validations:
 - The input string should have at least one @ and one dot
 - There should not be any space in the string