

### Problem Definition

Write a program in java to read a file from the local machine and insert the records from the file in the customer master table.

The structure of the Customer Master table will be:

<i>Sr #</i>	<i>Field Name</i>	<i>Data Type</i>	<i>Size</i>	<i>Mandatory</i>	<i>Validation</i>
1.	Customer ID	Number	10	Y	Running sequence number
2	Customer Code	Alpha- Numeric	10	Y	Primary Key
3	Customer Name	Alpha- Numeric	30	Y	Can accept only a-z, A-Z and 0-9
4	Customer Address 1	Alpha- Numeric	100	Y	
5	Customer Address 2	Alpha- Numeric	100	N	
6	Customer Pin Code	Number	6	Y	Numeric 6 characters, should not be less than 6 characters
7	E-mail address	Alpha- Numeric	100	Y	Validate the e-mail address format
8	Contact Number	Number	20	N	
9	Primary Contact Person	Alpha- Numeric	100	Y	
10	Record Status	Alpha- Numeric	1	Y	N- New, M- Modified, D- Deleted, A= Authorized, R-Rejected
11	Active/Inactive Flag	Alpha- Numeric	1	Y	A – Active, I - Inactive
12	Create Date	Date		Y	
13	Created By	Alpha- Numeric	30	Y	
14	Modified Date	Date		N	
15	Modified By	Alpha- Numeric	30	N	
16	Authorized Date	Date		N	
17	Authorized By	Alpha- Numeric	30	N	

- The file will be in .txt format, The program should check the extension of the file before uploading the file.
- Each field in the file will be separated with “~” character and two records will be separated with a new line character “\n”.
- The file can have multiple records.
- Following validations should be checked for each record before insertion into the table:
  - 1 Field length
  - 2 Field Data type
  - 3 Mandatory/Non-Mandatory
  - 4 Domain Value Check (if any)
  - 5 Special Character Validation
  - 6
- Following parameter will be fetched from the System Parameter table.
  - 1 File Location – The physical location of the file on the computer.

- 2 File Name – The name of the file to be uploaded
- 3 Rejection Level – R - if Record Level rejection is followed.  
F – if File level rejection is followed.

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- The program should handle the abrupt crash of the program. Commits and Rollbacks should be appropriately handled in case of program crash.
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- The program should generate a report for the records in which any of the validation fails and also give details of the error occurred.
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- Working of Rejection Level - The file or the record will depend on a system level parameter called Rejection Level:

The **Rejection Level** can have following values:

1. File Level (F) – If the rejection level is defined as File Level, complete file will be rejected and no record will be saved in the table.
2. Record Level (R) – In case the rejection level is Record level rejection the system will insert the successful records in the customer master table and reject the error records.