

File Upload Application

Clients

Team 3

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User stories

User story 1

As an end user, I want to read a text file from the local machine so that I can process the records.

User story 2

As an end user, I want a menu to select the file and rejection level so that I can easily process the file based on the rejection level.

User story 3

As a database administrator, I want to generate a report for the records where the validation failed with error messages so that I can understand which attributes need change.

User story 3

As a database administrator, I want the records read from the file to be validated so that I can easily maintain them in the database.

User story 5

As a database administrator, I don't want the same records to be uploaded so that I can maintain the integrity of the database.

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
- 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.
 - The program should handle the abrupt crash of the program. Commits and Rollbacks should be appropriately handled in case of program crash.
 - The program should generate a report for the records in which any of the validation fails and also give details of the error occurred.
 - 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:
 - 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.
 - 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.