Software Development

Design Documentation – Detailed construction

User Story – Database to Database Data Transfer ETL Application

|  |  |  |  |
| --- | --- | --- | --- |
| Revision# | When | Who | What |
| 1.0 | 09/07/2022 | Yogesh Sharma | * Desgin an application which can tranfer data from one database to another database |

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# **Objectives**

The purpose of this document is to fulfill client requirement that need to transfer data from one database to another database where user should be able to configure source, destination and data mapping related details in configuration table.

# **Actual Construction**

### Proposed Design Approach

* The proposed design approach will have one database table which will contain source, destination and data mapping details.

|  |  |
| --- | --- |
| **Column Name** | **Data Type** |
| Migration\_ID | int |
| Source\_Server | nvarchar |
| Source\_DB\_Name | nvarchar |
| Source\_Auth\_Mode | nvarchar |
| Source\_DB\_Username | nvarchar |
| Source\_DB\_Password | nvarchar |
| Source\_Select\_Query | nvarchar |
| Destination\_Server | nvarchar |
| Destination\_DB\_Name | nvarchar |
| Destination\_Auth\_Mode | nvarchar |
| Destination\_DB\_Username | nvarchar |
| Destination\_DB\_Password | nvarchar |
| Destination\_Table\_Name | nvarchar |
| IsActive | bit |





* Design a console application which will have following features.

1. Load application configuration details from JSON file.
2. Generate logs for each program execution.
3. Connect to configuration database and load data transfer config details into config class.
4. Program should be to handle one or more transfer records from config table. Either user can provide migration ID [like 1 or 1,2,3] from console or can set IsAtive flag to 1 in config table.
5. Connect source database based on authentication mode [Windows Auth or User Credentials].
6. Collect data from source system based on query configured in config table and return a datatable with collected result.
7. Connect to destination server based on authentication mode [Windows Auth or User Credentials].
8. Use Bulk insert operation to insert data into destination table configured in config table. Table column mapping should be dynamic.

**Optional**

1. Send an email notification once transfer is complete OR any error occurred in transfer