

Assignment 10 - SQL 2012

- Create a database named **Ass10_Db** with the following specifications :
 - Primary file group with the data file **Ass10.mdf**. The size, maximum size, and file growth should be 5, 50 and 10% respectively.
 - File group **Group1** with the data file **Ass10_1.ndf**. The size, maximum size, and file growth should be 10, unlimited, and 5 respectively.
 - Log file **Ass10_log.ldf**. The size, maximum size, and file growth should be 2, unlimited, and 10% respectively.
- Create the following tables in the database, applying the specified appropriate integrity constraints

Note: Ensure **CustStatus** column in **Customer** table and **Status** column in **CustomerMessage** accept only the specified values

Table: tbCustomer		
Column Names	Data type	Description
CustCode	VARCHAR(5)	Customer Code – PRIMARY KEY
CustName	VARCHAR(30)	Customer Name – NOT NULL
CustAddress	VARCHAR(50)	Customer Address – NOT NULL
CustPhone	VARCHAR(15)	Customer Phone
CustEmail	VARCHAR(25)	Email address of customer
CustStatus	VARCHAR(10)	Status of the Customer either Valid or Invalid , default value is Valid

Table: tbMessage		
Column Names	Data type	Description
MsgNo	INTEGER	Customer message number – identity (1000,1) - PRIMARY KEY
CustCode	VARCHAR(5)	Customer Code – FOREIGN KEY REF
MsgDetails	VARCHAR(300)	Customer message details – NOT NULL
MsgDate	DATETIME	Date of message – NOT NULL, default value is current date
Status	VARCHAR(10)	Status of message either Pending or Resolved

- Insert the following data into the tables:

tbCustomer					
CustCode	CustName	CustAddress	CustPhone	CustEmail	CustStatus
C001	Rahul Khana	7 th Cross Road	298345878	khannar@hotmail.com	Valid
C002	Anil Thakkar	Line Ali Road	657654323	Thakkar2002@yahoo.com	Valid
C004	Sanjay Gupta	Link Road	367654323	SanjayG@indiatimes.com	Invalid
C005	Sagar Vyas	Link Road	376543255	Sagarvyas@india.com	Valid

tbMessage				
MsgNo	CustCode	MsgDetails	MsgDate	Status
1000	C001	Voice mail always give ACCESS DENIED message	31-Aug-2014	Pending
1001	C005	Voice mail activation always give NO ACCESS message	1-Sep-2014	Pending
1002	C001	Please send all future bill to my residential address instead of my office address	5-Sep-2014	Resolved
1003	C004	Please send new monthly brochure ...	8-Nov-2014	Pending

- Create a clustered index **IX_Name** for **CustName** column on **tbCustomer** table.
 - Create a composite index **IX_CustMsg** for **CustCode** and **MsgNo** columns on **tbMessage** table
- Write a query to display the list of customers have no message sent yet.
- Create a view **vReport** which displays messages sent after 1 – Sep – 2014 as following:

MsgNo	MsgDetails	DatePosted	PostedBy	Status
1002	Please send all ...	09/05/2014	RahulKhana	Resolved
1003	Please send new...	11/08/2014	Sanjay Gupta	Pending
...				

Note: The definition of view must be hidden from users.

7. Create a **store procedure** **uspChangeStatus** to modify **CustStatus** column in **Customer** table from “invalid” to “valid” and display the number of records were changed.
8. Create a **store procedure** **uspCountStatus** to count and return the number of messages (output parameter) depending on the given status (input parameter)
9. Create a **trigger** **tgCustomerInvalid** for table **tbCustomer** which will perform rollback transaction when a new record is inserted which customer has status is **invalid** and display appropriate messages.
10. Create a **trigger** **tgCustomer** for table **tbCustomer** which deletes all related records in table **tbMessage** whenever a record of **tbCustomer** is deleted.