# PRETEST - SQL 2012

1. Create a database named **PretestDB** with the following specifications :
   a. Primary file group with the data file **pretest.mdf**. The size, maximum size, and file growth should be 5, 50 and 10% respectively.
   b. File group **Group1** with the data file **pretest.ndf**. The size, maximum size, and file growth should be 10, unlimited, and 5 respectively.
   c. Log file **pretest.ldf.** The size, maximum size, and file growth should be 2, unlimited, and 10% respectively.

2. Create the following tables in the database, applying the specified appropriate integrity constraints

**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** |

3. Insert the following data into the tables:

**tbCustomer**

| CustCode | CustName | CustAddres | CustPhone | CustEmail | CustStatus |
|---|---|---|---|---|---|
| C001 | Rahul Khana | 7th 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-2017 | Pending |
| 1001 | C005 | Voice mail activation always give NO ACCESS message | 1-Sep-2017 | Pending |
| 1002 | C001 | Please send all future bill to my residential address instead of my office address | 5-Sep-2017 | Resolved |
| 1003 | C004 | Please send new monthly brochure … | 8-Nov-2017 | Pending |

4. a. Create a clustered index **IX_Name** for *CustName* column on **tbCustomer** table.
   b. Create a composite index **IX_CustMsg** fot *CustCode* and *MsgNo* columns on **tbMessage** table

5. Write a query to display the list of customers have no message sent yet.

6. Create a view **vReport** which displays messages sent after 1 – Sep – 2017 as following:

| MsgNo | MsgDetails | DatePosted | PostedBy | Status |
|---|---|---|---|---|
| 1002 | Please send all future … | 09/05/2017 | RahulKhana | Resolved |
| 1003 | Please send new… | 08/11/2017 | Sagar Vyas | Pending |
| … | | | | |

7. Create a **store procedure uspCountStatus** to count and return the number of messages (output parameter) depending on the given status (input parameter)

8. 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.