

Pretest 2

1. Create a database named **Pretest2DB** with the following specifications :
 - a. Primary file group with the data file **pretest2.mdf**. The size, maximum size, and file growth should be 5, 50 and 10% respectively.
 - b. File group **GroupData** with the data file **pretest2b.ndf**. The size, maximum size, and file growth should be 10, unlimited, and 5 respectively.
 - c. Log file **pretest2_log.ldf**. The size, maximum size, and file growth should be 2, unlimited, and 10% respectively.
2. Create the table tbFlight in the database, applying the specified appropriate constraints:
 - Aircraftcode: primary key
 - FType : only accept 'Boeing' or 'Airbus'
 - Hours: from 1 to 20

Field Name	Type	Size	Description
AircraftCode	nvarchar	10	Identifies each aircraft
FType	nvarchar	10	Stores the type of aircraft
Source	nvarchar	20	Stores the source of the flight
Destination	nvarchar	20	Stores the destination of the flight
DepTime	DateTime		Stores the departure time of the flight
JourneyHrs	int		Stores the total journey hours

3. Insert data for table tbFlight as follows:

AircraftCode	FType	Source	Destination	DepTime	Hours
UA01	Boeing	Los Angeles	London	15.30	6
UA02	Boeing	California	New York	09.30	8
SA01	Boeing	Istanbul	Ankara	10.45	8
SA02	Airbus	London	Moscow	11.15	9
SQ01	Airbus	Sydney	Ankara	01.45	15
SQ02	Boeing	Perth	Aden	13.30	10
SQ03	Airbus	San Francisco	Nairobi	15.45	15

4. a. Create a clustered index **IX_Source** for **Source** column on **tbFlight** table.
b. Create an index **IX_Destination** for **Destination** column on **tbFlight** table
5. Write a query to display the flights that have journey hours less than 9.
6. Create a view **vwBoeing** which contains flights that have Boeing aircrafts.
Note: this view will need to check for domain integrity.
7. Create a **store procedure uspChangeHour** to increase journey hours by a given value (input parameter)
8. Create a **trigger tgFlightInsert** for table **tbFlight** which will perform rollback transaction if a new record has the source same as the destination and display appropriate error message.
9. Create a **trigger tgFlightUpdate** for table **tbFlight** which is not allowed to change value of aircraft code