CREATE DATABASE [BANKING\_DATABASE]

ON PRIMARY

( NAME = N'BANK\_DATABASE', FILENAME = N'E:\BANK\_DATABASE.mdf' ),

FILEGROUP [ACCOUNTS\_FILEGROUP]

( NAME = N'ACCOUNTS\_FILE', FILENAME = N'E:\ACCOUNTS\_FILE.ndf'),

FILEGROUP [INSURANCE\_FILEGROUP]

( NAME = N'INSURANCE\_FILE', FILENAME = N'E:\INSURANCE\_FILE.ndf')

USE [BANKING\_DATABASE]

CREATE TABLE tblACCOUNTS (AccID int, AccStatus bit, AccBal float) on [ACCOUNTS\_FILEGROUP]

INSERT INTO tblAccounts VALUES (10001, 797009, 1), (10002, 343733, 1),(10003, 0, 1)

CREATE TABLE tblINSURANCE (InsrID int, InsrStatus bit, InsrBal float) on [INSURANCE\_FILEGROUP]

INSERT INTO tblInsurance VALUES (10001, 457444, 1), (10002, 347333, 1),(10003, 440, 1)

-- FULL BACKUP : THIS IS THE COMPLETE DATABASE BACKUP (BASE BACKUP) -- 12 AM

BACKUP DATABASE [BANKING\_DATABASE] TO DISK = 'E:\FullBackup.BAK' with FORMAT -- FORMAT : TO OVERWRITE

-- DIFFERENTIAL BACKUP : ALL CHANGES SINCE LATEST FULL BACKUP -- 12 AM TO 1 AM

INSERT INTO tblINSURANCE DEFAULT VALUES; INSERT INTO tblACCOUNTS DEFAULT VALUES

BACKUP DATABASE [BANKING\_DATABASE] TO DISK = 'E:\Diff\_1.BAK' with FORMAT, DIFFERENTIAL

-- DIFFERENTIAL BACKUP : ALL CHANGES SINCE LATEST FULL BACKUP -- 12 AM TO 2 AM

INSERT INTO tblINSURANCE DEFAULT VALUES; INSERT INTO tblACCOUNTS DEFAULT VALUES

BACKUP DATABASE [BANKING\_DATABASE] TO DISK = 'E:\Diff\_2.BAK' with FORMAT,DIFFERENTIAL

-- LOG BACKUP -- LOG DATA @ 3 AM

INSERT INTO tblINSURANCE DEFAULT VALUES; INSERT INTO tblACCOUNTS DEFAULT VALUES

BACKUP LOG [BANKING\_DATABASE] TO DISK = 'E:\LogBackup.trn' with FORMAT

USE MASTER

DROP DATABASE [BANKING\_DATABASE]

-- EXAMPLE 1: HOW TO RESTORE THE ENTIRE DATABASE?

RESTORE DATABASE BANKDATABASE FROM DISK = 'E:\FullBackup.BAK' WITH NORECOVERY

RESTORE DATABASE BANKDATABASE FROM DISK = 'E:\Diff\_2.BAK' WITH NORECOVERY

RESTORE DATABASE BANKDATABASE FROM DISK = 'E:\LogBackup.trn' WITH RECOVERY

-- VERIFY ABOVER DATABASE AND THE TABLES [ACCOUNTS, INSURANCE]

USE MASTER

DROP DATABASE BANKDATABASE

-- EXAMPLE 2: HOW TO RESTORE THE DATABASE IN PARTS? PARTIAL RESTORE.

-- SCENARIO: ALL OF A SUDDEN, DATABASE CRASHED. WE NEED TO RESTORE ACCOUNTS DATA ASAP & GET DATABASE ONLINE.

-- LATER, YOU NEED TO RESTORE INSURANCE DATA.

RESTORE DATABASE BANKDATABASE

FILEGROUP = 'PRIMARY' FROM DISK = 'E:\FullBackup.BAK' WITH NORECOVERY, PARTIAL

RESTORE DATABASE BANKDATABASE

FILEGROUP = 'ACCOUNTS\_FILEGROUP' FROM DISK = 'E:\FullBackup.BAK' WITH NORECOVERY

RESTORE DATABASE BANKDATABASE FROM DISK = 'E:\Diff\_2.BAK' WITH NORECOVERY

RESTORE LOG BANKDATABASE FROM DISK = 'E:\LogBackup.trn' WITH RECOVERY

USE BANKDATABASE

SELECT COUNT(\*) FROM tblACCOUNTS

SELECT COUNT(\*) FROM tblINSURANCE -- ERROR #8653

CREATE TABLE TEST\_TABLE (COL1 INT, COL2 INT)

INSERT INTO TEST\_TABLE DEFAULT VALUES

INSERT INTO TEST\_TABLE DEFAULT VALUES

INSERT INTO TEST\_TABLE DEFAULT VALUES

-- HOW TO RESTORE REMAINING PART OF DATABASE?

-- PERFORM TAIL LOG BACKUP : TO CONVERT ONLINE DATABASE INTO RESTORING STATE.

USE MASTER

GO

BACKUP LOG BANKDATABASE TO DISK = 'E:\TAIL\_LOG.TRN' WITH NORECOVERY, FORMAT -- TAIL LOG BACKUP

RESTORE DATABASE BANKDATABASE

FILEGROUP = 'INSURANCE\_FILEGROUP' FROM DISK = 'E:\FullBackup.BAK' WITH NORECOVERY

RESTORE DATABASE BANKDATABASE FROM DISK = 'E:\Diff\_2.BAK' WITH NORECOVERY

RESTORE LOG BANKDATABASE FROM DISK = 'E:\LogBackup.trn' WITH NORECOVERY

RESTORE LOG BANKDATABASE FROM DISK = 'E:\TAIL\_LOG.TRN' WITH RECOVERY

USE BANKDATABASE

SELECT COUNT(\*) FROM tblACCOUNTS

SELECT COUNT(\*) FROM tblINSURANCE -- NO ERROR