Task-9: Backing up and recovery in databases

Perform following backup and recovery Scenarios.

Senerio 1: Recovery a NOARCHIVELOG Data base with incremental backups.

Step 1: Backup Database

BACKUP DATA BASE To DISK = `backup_title. back` with NO FORMAT, No INT, NAME = `FULL Database BACKUP`, SKIP, REWIND, NOUNLOAD, STATS = l0.

Step-2: Create incremental backup

BACKUP DATABASE To DISK = `increment_backup. base`, WITH DIFFERENTIAL, No FORMAT, NOTNIT, NAME = `Incremental Database Backups`, SKIP, REWIND, NOUNLOAD, Stats = l0

- Step3: Simulate Data loss
- ~~Increment~~ Intentionally delete or modify data.

- Step4: Restore Database

RESTORE DATABASE [database_name] FROM DISK = `backup_file. bac` WITH REPLACE

Step 5: Apply Incremental Backup

RESTORE DATABASE [database_name] FROM DISK = `increment_backup.bak`, WITH REPLACE

Step 6: Recover Data base

RECOVER DATA BASE [database_name]

Step 7: open database

ALTER DATABASE [database_name] SET ONLINE

- **Employee (Employee_ID, Name, Department_ID, Job_Title, Hire_Date, Salary)** 🔗
- **Department (Department_ID, Manager_ID)** 🔗
- **Manager (Manager_ID, Name)**

Senerlo-2: Restoring the Server Parameter file

Step1: Back up SPFILE

Back up SERVER PARAMETER FILE TO FILE = 'SPfile.

bak';

Step-2: Simulate SPFILE loss

- Delete or modify SPFILE

Step3: Restore SPFILE

STARTUP MOUNT RESTORE SERVER PARAMETER FILE

FROM FILE = 'spfile.bak';

SHUT DOWN

STARTUP

Scenario 3: Restore Control file.

STARTUP MOUNT
RESTORE SERVER PARAMETER FILE FROM FILE = 'SPfile.

bac';

SHUT DOWN

STARTUP

- Step 4: Recover Database

RECOVER DATABASE USING BACKUP CONTROL FILE;

Step5: Open Database

ALTER DATABASE USING BACK UP CONTROLFILE;
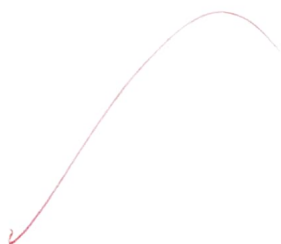

SQL Server Commands:

- BACKUP DATABASE

- RESTORE DATABASE

- RECOVER DATABASE

- ALTER DATABASE

- Employee_ID → Name, Department, Job_Title, Manager_ID, Hire_Date, Salary (The Employee's ID determines all other attributes).

- Department → Manager_ID (The department determines the manager's ID).

- Manager_ID → Name (The manager's ID determines the manager's name).

- Backup SERVER PARAMETER FILE
- RESTORE SERVER PARAMETER FILE
- BACKUP CONTROL FILE
- RESTORE CONTROL FILE

Result Thus, the backing up and recovery in databases executed and verified output successfully.