

Task 9: Backing up and Recovery in College management system database.

Aim:- To Backing up and Recovery to College management system database.

College Management database

Scenario 1: Recovering a Noarchive log database with Incremental Backups.

Step 1: Backup College Management Database.

SQL

~~BACKUP DATABASE [College_Management_DB].
TO DISK = 'C:\Backups\CollegeDB-full.bak'
WITH NOFORMAT, NOINIT,
NAME = 'Full College Management Database Backup',
SKIP, REWIND, NOUNLOAD, STATS = 10;~~

Step 2: Create Incremental Backup.

~~BACKUP DATABASE [College_Management_DB].
TO DISK = '(C:\Backups\CollegeDB-Incremental.bak'
WITH DIFFERENTIAL, NOFORMAT, NOINIT,
NAME = 'Incremental College Management Database Backup',
SKIP, REWIND, NOUNLOAD, STATS = 10;~~

Step 3: Simulate Data Loss.

DELETE FROM Students WHERE Department-ID
= 'CSE';

Step 4: Restore full Backup

```
RESTORE DATABASE [College-Management-DB]
FROM DISK = 'C:\Backups\collegeDB-full.bak'
WITH REPLACE;
```

Step 5: Apply Increment Backup

```
RESTORE DATABASE [College-Management-DB]
FROM DISK = 'C:\Backups\collegeDB-Incremental.bak'
```

WITH REPLACE;

Step 6: Recover Database.

```
RECOVER DATABASE [College-Management-DB];
```

Step 7: Bring Database online.

```
ALTER DATABASE [College-Management-DB] SET ONLINE;
```

Scenario 2: Restoring the server parameter file.

Step 1: Backup SPFILE.

```
BACKUP SERVER PARAMETER FILE TO FILE = 'C:\Backups\collegeDB-SPFILE.bak';
```

Step 2: Simulate SPFILE loss.

Step 3: Restore SPFILE

```
STARTUP MOUNT;
```

```
RESTORE SERVER PARAMETER FILE FROM FILE =
'C:\Backups\collegeDB-SPFILE.bak';
```

```
SHUTDOWN;
```

```
STARTUP;
```

scenario 3: Performing Recovery with a Backup control file.

Step 1: Backup control file.

Backup. CONTROLFILE TO FILE = 'C:\Backups\collegeDB - controlfile.bak'

Step 2: Simulate control file loss.

Step 3: Restore control file.

STARTUP MOUNT;

RESTORE CONTROLFILE FROM FILE = 'C:\Backups\collegeDB - controlfile.bak';

ALTER. CONTROLFILE REUSE;

Step 4: Recover database.

RECOVER. DATABASE USING BACKUP CONTROLFILE;

Step 5: open Database.

ALTER. DATABASE OPEN RESETLOGS;

VEL TECH	
EX NO	9
PERFORMANCE (5)	2
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	2
RECORD (5)	1
TOTAL (20)	17
SIGN WITH DATE	10/10/2023

Result:- Thus, the college management system database is fully recovered using a backup control file executed successfully.