

DATE: 6/10/25

TASK 9: Backing up and Recovery in collage 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 collage management database.

SQL:

```
BACKUP DATABASE [collage - Management - DB]
```

```
TO DISK = 'C:\Backups\collage DB-full.bak'
```

```
WITH NOFORMAT, NOTNIT,
```

```
NAME = 'Full collage Management Database Backup'
```

```
SKIP, REWIND, NOUNLOAD, STATUS = 10;
```

Step 2: Create Incremental Backup

```
BACKUP DATABASE [collage - Management - DB]
```

```
TO DISK = 'C:\Backups\collage DB-Incremental.bak'
```

```
WITH DIFFERENTIAL, NOFORMAT, NOTNIT,
```

```
NAME = 'Incremental collage management database Backup',
```

```
SKIP, REWIND, NOUNLOAD, STATUS = 10;
```

Step 3: Simulate Data Loss

```
DELETE FROM students WHERE Department_ID = 'CS';
```

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;
```

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';
```

```
SHUT DOWN
```

```
STARTUP;
```


Scenario 3: performing Recovery with a Backup control file

Step 1: Backup control file

Backup CONTROLFILE TO FILE = 'C:\Backups\collegeDB-control File.bak';

ALTER CONTROLFILE REUSE;

Step 2: Simulate control file

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 REUSEOPEN RESETLOGS;

EX NO.	9
PERFORMANCE (10)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (10)	5
RECORD (10)	15
TOTAL (50)	40
SIGN WITH DATE	

Results: Thus the college management ^{6/12/23} system database is fully recovered using a backup control file executed successfully