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# 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 No archive log database with Incremental Backups

**Step-1:** Backup college management database

```
Backup database [College - Management _ DB]
To DISK = `c`: \Backups \college DB_ full.back'
WITH No FORMAT, No INT,
NAME ='FULL COLLEGE Management Database Backup',
SKIP, REWIND, NOUNLOAD, STATS =100;
```

**Step-2:** Create Incremental Backup

```
BACKUP DATABASE [college - Mangement -DB].
To DISK = 'C: \BackUPS\college DB - Incremental.bak'
WITH DIFFERENTIAL, No FORMAT, NO INIT,
NAME = 'Incremental college. management Database backup',
SKIP, REWIND, NOUN LOAD, STATS = 10;
```

**Step-3:** Simulate Data Loss

```
DELETE FROM students WHERE department -ID = 'cse';
```

**Step-4:** Restore full Backup

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

**Step-5:** Apply Increment Backup

```
RESTORE DATABASE [College - Management _DB].
FROM DISK = 'c: \Backups \College DB - 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 CONTROL FILE To FILE = 'c:\Backups\CollegeDB-Control
                                           file.bak';

Step-2: Simulate Control file loss

Step-3: Restore Control file

STARTUP Mount;

RESTORE CONTROL FILE FROM FILE = 'c:\Backups\College DB-
                                        Control-file.bak';

ALTER CONTROL FILE REUSE;

Step-4: RECOVER database

RECOVER DATABASE USING BACKUP CONTROLFILE;

Step-5: Open Database

ALTER DATABASE OPEN RESETLOGS;

Result:-

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