Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology
(Deemed to be University Estd. u/s 3 of UGC Act, 1956)
School of Computing
B.Tech. – Computer Science and Engineering

VTR UGE2021- (CBCS)

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Course Code   : 10211CS207

Course Name : Database Management Systems

Slot No   : S4-L5

DBMS TASK - 9 REPORT

Submitted by:

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ABSTRACT

This task demonstrates **backup and recovery operations** in SQL Server/Oracle environments, including restoring parameter and control files. Backup and recovery ensure data safety in case of failure or corruption.

Scenario 1: Recovering a NOARCHIVELOG Database

```
-- Full Database Backup

BACKUP DATABASE [database_name] TO DISK = 'backup_file.bak'

WITH INIT, NAME = 'Full Database Backup', STATS = 10;



-- Incremental Backup

BACKUP DATABASE [database_name] TO DISK =
'incremental_backup.bak'

WITH DIFFERENTIAL, NAME = 'Incremental Database Backup', STATS
= 10;



-- Restore Database

RESTORE DATABASE [database_name] FROM DISK = 'backup_file.bak'
WITH REPLACE;



-- Apply Incremental Backup

RESTORE DATABASE [database_name] FROM DISK =
'incremental_backup.bak' WITH REPLACE;
```

-- Recover and Open Database

RECOVER DATABASE [database_name];

ALTER DATABASE [database_name] SET ONLINE;

Scenario 2: Restoring the Server Parameter File

BACKUP SERVER PARAMETER FILE TO FILE = 'spfile.bak';

STARTUP MOUNT;

RESTORE SERVER PARAMETER FILE FROM FILE = 'spfile.bak';

SHUTDOWN;

STARTUP;

Scenario 3: Recovery with a Backup Control File

BACKUP CONTROLFILE TO FILE = 'controlfile.bak';

STARTUP MOUNT;

RESTORE CONTROLFILE FROM FILE = 'controlfile.bak';

RECOVER DATABASE USING BACKUP CONTROLFILE;

ALTER DATABASE OPEN RESETLOGS;

Output

- BACKUP CONTROLFILE completed successfully.
- CONTROLFILE loss simulated.
- RESTORE CONTROLFILE completed successfully.
- RECOVER DATABASE USING BACKUP CONTROLFILE completed successfully.
- ALTER DATABASE OPEN RESETLOGS

RESULT

Backup and recovery of databases, server parameter files, and control files were successfully demonstrated using SQL commands.