

CODTECH Internship

TASK 4

Database Backup And Recovery

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OBJECTIVE:

Take a backup of mysql database and restore without any missing of data.

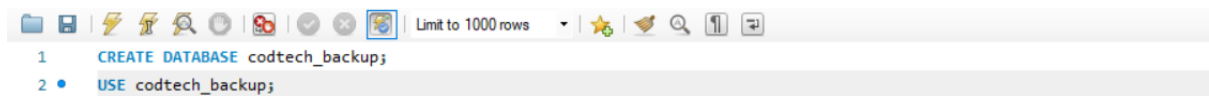
TOOL USED:

- . MYSQL Server 8.0

- . MYSQL Workbench

- . Command prompt

1.Create database:



The screenshot shows a SQL command window with a toolbar at the top. The toolbar includes icons for file operations (new, open, save, print), editing (undo, redo, cut, copy, paste), and execution (run, stop, refresh). A dropdown menu next to the run icon shows 'Limit to 1000 rows'. Below the toolbar, there are two lines of SQL code:

```
1 CREATE DATABASE codtech_backup;  
2 • USE codtech_backup;
```

2.Create table :

Limit to 1000 rows

Jump to

```
1
2
3 CREATE TABLE employees (
4     emp_id INT PRIMARY KEY,
5     emp_name VARCHAR(50),
6     salary INT
7 );
8
9
```

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Context Help Snippets

Output

Action Output

#	Time	Action	Message	Duration / Fetch
✓ 1	13:04:08	CREATE DATABASE codetech_backup	1 row(s) affected	0.015 sec
✓ 2	13:04:08	USE codetech_backup	0 row(s) affected	0.000 sec
✗ 3	13:05:29	CREATE DATABASE codetech_backup	Error Code: 1007. Can't create database 'codetech_backup'; database exists	0.000 sec
✓ 4	13:05:42	CREATE TABLE employees (emp_id INT PRIMARY KEY, emp_name VARCHAR(50), salary INT)	0 row(s) affected	0.047 sec

3.Insert values:

The screenshot shows a SQL IDE interface. The top toolbar includes icons for file operations, execution, and a 'Limit to 1000 rows' dropdown. The script editor contains the following SQL code:

```
1 • INSERT INTO employees VALUES
2 (1,'Arun',50000),
3 (2,'Priya',45000);
```

On the right, a context help panel displays the message: "Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help."

At the bottom, an 'Output' window shows the execution results in a table:

#	Time	Action	Message	Duration / Fetch
✓ 1	13.04.08	CREATE DATABASE codetech_backup	1 row(s) affected	0.015 sec
✓ 2	13.04.08	USE codetech_backup	0 row(s) affected	0.000 sec
✗ 3	13.05.29	CREATE DATABASE codetech_backup	Error Code: 1007. Can't create database 'codetech_backup'; database exists	0.000 sec
✓ 4	13.05.42	CREATE TABLE employees (emp_id INT PRIMARY KEY, emp_name VARCHAR(50), salary INT)	0 row(s) affected	0.047 sec
✓ 5	13.06.21	INSERT INTO employees VALUES (1,'Arun',50000), (2,'Priya',45000)	2 row(s) affected Records: 2 Duplicates: 0 Warnings: 0	0.015 sec

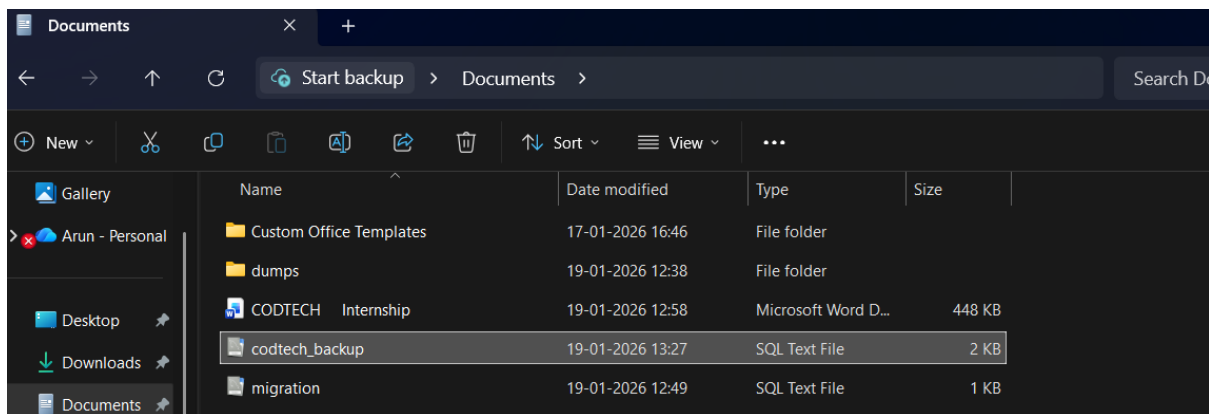
4.Backup process using command prompt:

```
Command Prompt
Microsoft Windows [Version 10.0.26100.4946]
(c) Microsoft Corporation. All rights reserved.

C:\Users\G.S.A>cd "C:\Program Files\MySQL\MySQL Server 8.0\bin"

C:\Program Files\MySQL\MySQL Server 8.0\bin>
```

```
C:\Program Files\MySQL\MySQL Server 8.0\bin>mysqldump -u root -p codtech_backup > "C:\Users\G.S.A\Documents\codtech_backup.sql"
Enter password: *****
```



Backup created successfully

5.Opening backup file:

```
codetech_backup x
Limit to 1000 rows

1  -- MySQL dump 10.13  Distrib 8.0.44, for Win64 (x86_64)
2  --
3  -- Host: localhost    Database: codetech_backup
4  --
5  -- Server version  8.0.44
6
7  • /*!40101 SET @OLD_CHARACTER_SET_CLIENT=@@CHARACTER_SET_CLIENT */;
8  • /*!40101 SET @OLD_CHARACTER_SET_RESULTS=@@CHARACTER_SET_RESULTS */;
9  • /*!40101 SET @OLD_COLLATION_CONNECTION=@@COLLATION_CONNECTION */;
10 • /*!50503 SET NAMES utf8mb4 */;
11 • /*!40103 SET @OLD_TIME_ZONE=@@TIME_ZONE */;
12 • /*!40103 SET TIME_ZONE='+00:00' */;
13 • /*!40014 SET @OLD_UNIQUE_CHECKS=@@UNIQUE_CHECKS, UNIQUE_CHECKS=0 */;
14 • /*!40014 SET @OLD_FOREIGN_KEY_CHECKS=@@FOREIGN_KEY_CHECKS, FOREIGN_KEY_CHECKS=0 */;
15 • /*!40101 SET @OLD_SQL_MODE=@@SQL_MODE, SQL_MODE='NO_AUTO_VALUE_ON_ZERO' */;
16 • /*!40111 SET @OLD_SQL_NOTES=@@SQL_NOTES, SQL_NOTES=0 */;
17
18 --
19 -- Table structure for table `employees`
20 --
21
22 • DROP TABLE IF EXISTS `employees`;
23 • /*!40101 SET @saved_cs_client      = @@character_set_client */;
24 • /*!50503 SET character_set_client = utf8mb4 */;
25 • CREATE TABLE `employees` (
```

In MYSQL

```
migration.sql  codtech_backup.sql  X  +
File Edit View

-- MySQL dump 10.13  Distrib 8.0.44, for Win64 (x86_64)
--
-- Host: localhost    Database: codtech_backup
-----
-- Server version      8.0.44

/*!40101 SET @OLD_CHARACTER_SET_CLIENT=@@CHARACTER_SET_CLIENT */;
/*!40101 SET @OLD_CHARACTER_SET_RESULTS=@@CHARACTER_SET_RESULTS */;
/*!40101 SET @OLD_COLLATION_CONNECTION=@@COLLATION_CONNECTION */;
/*!50503 SET NAMES utf8mb4 */;
/*!40103 SET @OLD_TIME_ZONE=@@TIME_ZONE */;
/*!40103 SET TIME_ZONE='+00:00' */;
/*!40014 SET @OLD_UNIQUE_CHECKS=@@UNIQUE_CHECKS, UNIQUE_CHECKS=0 */;
/*!40014 SET @OLD_FOREIGN_KEY_CHECKS=@@FOREIGN_KEY_CHECKS, FOREIGN_KEY_CHECKS=0 */;
/*!40101 SET @OLD_SQL_MODE=@@SQL_MODE, SQL_MODE='NO_AUTO_VALUE_ON_ZERO' */;
/*!40111 SET @OLD_SQL_NOTES=@@SQL_NOTES, SQL_NOTES=0 */;

--
-- Table structure for table `employees`
--

DROP TABLE IF EXISTS `employees`;
/*!40101 SET @saved_cs_client      = @@character_set_client */;
/*!50503 SET character_set_client = utf8mb4 */;
CREATE TABLE `employees` (
  `emp_id` int NOT NULL,
  `emp_name` varchar(50) DEFAULT NULL,
  `salary` int DEFAULT NULL,
  PRIMARY KEY (`emp_id`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `employees`
--

LOCK TABLES `employees` WRITE;
/*!40000 ALTER TABLE `employees` DISABLE KEYS */;
INSERT INTO `employees` VALUES (1,'Arun',50000),(2,'Priya',45000);
/*!40000 ALTER TABLE `employees` ENABLE KEYS */;
UNLOCK TABLES;
/*!40103 SET TIME_ZONE=@OLD_TIME_ZONE */;

/*!40101 SET SQL_MODE=@OLD_SQL_MODE */;
/*!40014 SET FOREIGN_KEY_CHECKS=@OLD_FOREIGN_KEY_CHECKS */;
/*!40014 SET UNIQUE_CHECKS=@OLD_UNIQUE_CHECKS */;

/*!40101 SET SQL_MODE=@OLD_SQL_MODE */;
/*!40014 SET FOREIGN_KEY_CHECKS=@OLD_FOREIGN_KEY_CHECKS */;
/*!40014 SET UNIQUE_CHECKS=@OLD_UNIQUE_CHECKS */;
/*!40101 SET CHARACTER_SET_CLIENT=@OLD_CHARACTER_SET_CLIENT */;
/*!40101 SET CHARACTER_SET_RESULTS=@OLD_CHARACTER_SET_RESULTS */;
/*!40101 SET COLLATION_CONNECTION=@OLD_COLLATION_CONNECTION */;
/*!40111 SET SQL_NOTES=@OLD_SQL_NOTES */;

-- Dump completed on 2026-01-19 13:39:58

Ln 11, Col 44    1,980 characters    Plain text
```

In Notepad

6.Dropping the table:

7.Recovery process:

The screenshot shows the SQL Enterprise Manager interface. The query editor contains the command `CREATE DATABASE codtech_restore`. The output pane at the bottom shows the execution results.

#	Time	Action	Message	Duration / Fetch
1	13:49:22	CREATE DATABASE codtech_restore	1 row(s) affected	0.000 sec

The screenshot shows the SQL Enterprise Manager interface. The query editor contains the commands `USE codtech_restore;` and `SHOW TABLES;`. The output pane at the bottom shows the execution results for these queries.

#	Time	Action	Message	Duration / Fetch
1	13:49:22	CREATE DATABASE codtech_restore	1 row(s) affected	0.000 sec
2	13:51:48	USE codtech_restore	0 row(s) affected	0.000 sec
3	13:51:48	SHOW TABLES	1 row(s) returned	0.000 sec / 0.000 sec

Query 1 SQL File 3" x

Limit to 1000 rows

1 • SELECT * FROM employees;

SQLAdditions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Result Grid

	emp_id	emp_name	salary
1	Arun	50000	
2	Priya	45000	

employees 2 x

Output

#	Time	Action	Message	Duration / Fetch
1	13:49:22	CREATE DATABASE codetech_restore	1 row(s) affected	0.000 sec
2	13:51:48	USE codetech_restore	0 row(s) affected	0.000 sec
3	13:51:48	SHOW TABLES	1 row(s) returned	0.000 sec / 0.000 sec
4	13:52:36	SELECT * FROM your_table_name LIMIT 0, 1000	Error Code: 1146. Table 'codetech_restore.your_table_name' doesn't exist	0.000 sec
5	13:53:01	SELECT * FROM employees LIMIT 0, 1000	2 row(s) returned	0.000 sec / 0.000 sec

Conclusion:

Database backup and recovery ensures data safety and business continuity during system failures.