

Лабораторын ажил – 10

Backup and Restore

- Full Backup: өгөгдлийн сангаа бүтнээр нь хадгалах бөгөөд файлын нэр нь он сар өдөр гэсэн тамгатай байна.

Backup хийсэн байдал:

```
C:\Users\dell>mysqldump -u root -p -h localhost -P 3308 urgoo > "C:\Users\dell\Desktop\full_backup_%datetime%.sql"
Enter password: *****
C:\Users\dell>
```



Recover хийсэн байдал:

```
C:\Users\dell>mysqldump -u root -p -h localhost -P 3308 urgoo < "C:\Users\dell\Desktop\full_backup_%datetime%.sql"
Enter password: *****
-- MySQL dump 10.13 Distrib 8.0.32, for Win64 (x86_64)
--
-- Host: localhost    Database: urgoo
--
-- Server version      8.0.32

/*!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 */;
--
```

```
LOCK TABLES `users` WRITE;
/*!40000 ALTER TABLE `users` DISABLE KEYS */;
INSERT INTO `users` VALUES (1,'john','john',123,'1234'),(2,'jane','jane',123,'1234');
/*!40000 ALTER TABLE `users` ENABLE KEYS */;
UNLOCK TABLES;
/*!40103 SET TIME_ZONE=@OLD_TIME_ZONE */;

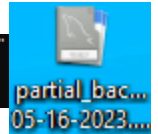
/*!40101 SET SQL_MODE=@OLD_SQL_MODE */;
/*!40014 SET FOREIGN_KEY_CHECKS=@OLD_FOREIGN_KEY_CHECKS */;
/*!40014 SET UNIQUE_CHECKS=@OLD_UNIQUE_CHECKS */;
/*!40101 SET CHARACTER_SET_CLIENT=@OLD_CHARACTER_SET_CLIENT */;
/*!40101 SET CHARACTER_SET_RESULTS=@OLD_CHARACTER_SET_RESULTS */;
/*!40101 SET COLLATION_CONNECTION=@OLD_COLLATION_CONNECTION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

-- Dump completed on 2023-05-16 16:30:54
```

- Partial Backup: зөвхөн тодорхой хэдэн хүснэгтийг хадгална.

Backup хийсэн байдал:

```
C:\Users\dell>mysqldump -u root -p -h localhost -P 3308 urgoo ticket theater screen > "C:\Users\dell\Desktop\partial_backup_%datetime%.sql"
Enter password: *****
C:\Users\dell>
```



Recover хийсэн байдал:

```
C:\Users\dell>mysqldump -u root -p -h localhost -P 3308 urgoo ticket theater screen < "C:\Users\dell\Desktop\partial_backup_%datetime%.sql"
Enter password: *****
-- MySQL dump 10.13 Distrib 8.0.32, for Win64 (x86_64)
--
-- Host: localhost    Database: urgoo
--
-- Server version      8.0.32
--
/*!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 `ticket`
--
```

-- Dump completed on 2023-05-16 16:36:50

- Copy command: Аль нэг 2 хүснэгтийг join хийгээд үр дүнгээ excel файл болгон хадгална.

```
13 • select m.*, s.*
14 from movie as m, shows as s
15 where m.id = s.movie_id
16 into outfile "C:\ProgramData\MySQL\MySQL Server 8.0\Uploads\join_movie_shows.csv"
17 fields terminated by ","
18 lines terminated by "\n";
```

#	Time	Action	Message	Duration / Fetch
4	16:41:50	select m.*, s.* from movie as m, shows as s where m.id = s.movie_id into outfile "C:\Users\dell..."	Error Code: 1290. The MySQL server is running with the --secure-file-priv option so it cannot ...	0.032 sec
5	16:42:49	SHOW VARIABLES LIKE 'secure_file_priv'	1 row(s) returned	0.016 sec / 0.000 sec
6	16:43:24	select m.*, s.* from movie as m, shows as s where m.id = s.movie_id into outfile "C:\ProgramData\MySQL\MySQL Server 8.0\Uploads\join_movie_shows.csv"	6 row(s) affected	0.000 sec

Гарсан үр дүнг excel file болгон хадгалсан байдал:

This PC > Local Disk (C:) > ProgramData > MySQL > MySQL Server 8.0 > Uploads

Name	Date modified	Type	Size
join_movie_shows.csv	5/16/2023 4:43 PM	Microsoft Excel C...	1 KB

join_movie_shows.csv [Read-Only] - Excel

File Home Insert Page Layout Formulas Data Review View Help Tell me what you want to do

Paste Clipboard Font Alignment Number

POSSIBLE DATA LOSS Some features might be lost if you save this workbook in the comma-delimited (.csv) format. To preserve these features, save the file as a CSV file.

GET GENUINE OFFICE Your license isn't genuine, and you may be a victim of software counterfeiting. Avoid interruption and keep your files safe.

N16

	A	B	C	D	E	F	G	H	I	J	K
1	1	Godfather	2	140	9/12/1979	1	1	1	4/20/2023 18:00	1	
2	1	Godfather	2	140	9/12/1979	2	2	1	4/20/2023 20:30	1	
3	2	Impossible	4	120	9/12/1995	3	1	2	4/20/2023 19:00	2	
4	2	Impossible	4	120	9/12/1995	4	2	2	4/20/2023 21:30	2	
5	3	Moviee	3	143	12/16/1993	5	1	3	4/20/2023 20:00	3	
6	3	Moviee	3	143	12/16/1993	6	1	3	4/20/2023 15:30	1	
7											
8											

Full backup file:

1. Genre table

```

19 -- Table structure for table `genre`
20 --
21
22 • DROP TABLE IF EXISTS `genre`;
23 • /*!40101 SET @saved_cs_client      = @@character_set_client */;
24 • /*!50503 SET character_set_client = utf8mb4 */;
25 • CREATE TABLE `genre` (
26   `id` int NOT NULL,
27   `name1` varchar(255) DEFAULT NULL,
28   PRIMARY KEY (`id`)
29 ) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
30 • /*!40101 SET character_set_client = @saved_cs_client */;
31
32 --
33 -- Dumping data for table `genre`
34 --
35
36 • LOCK TABLES `genre` WRITE;
37 • /*!40000 ALTER TABLE `genre` DISABLE KEYS */;
38 • INSERT INTO `genre` VALUES (1,'Drama'),(2,'Crime'),(3,'Action'),(4,'Comedy');
39 • /*!40000 ALTER TABLE `genre` ENABLE KEYS */;
40 • UNLOCK TABLES;

```

2. Image table

```
46 • DROP TABLE IF EXISTS `image`;
47 • /*!40101 SET @saved_cs_client      = @@character_set_client */;
48 • /*!50503 SET character_set_client = utf8mb4 */;
49 • CREATE TABLE `image` (
50   `id` int NOT NULL,
51   `image_url` varchar(255) DEFAULT NULL,
52   `movie_id` int DEFAULT NULL,
53   PRIMARY KEY (`id`)
54 ) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
55 • /*!40101 SET character_set_client = @saved_cs_client */;
56
57 --
58 -- Dumping data for table `image`
59 --
60
61 • LOCK TABLES `image` WRITE;
62 • /*!40000 ALTER TABLE `image` DISABLE KEYS */;
63 • INSERT INTO `image` VALUES (1,'https://example.com/image1.jpg',1),(2,'https://example.com/image2.jpg',2),(3,'https://example.
64 • /*!40000 ALTER TABLE `image` ENABLE KEYS */;
65 • UNLOCK TABLES;
```

3. Movie table

```
68 -- Table structure for table `movie`
69 --
70
71 • DROP TABLE IF EXISTS `movie`;
72 • /*!40101 SET @saved_cs_client      = @@character_set_client */;
73 • /*!50503 SET character_set_client = utf8mb4 */;
74 • CREATE TABLE `movie` (
75   `id` int NOT NULL,
76   `title` varchar(255) DEFAULT NULL,
77   `genre_id` int DEFAULT NULL,
78   `runtime` int DEFAULT NULL,
79   `release_date` date DEFAULT NULL,
80   PRIMARY KEY (`id`)
81 ) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
82 • /*!40101 SET character_set_client = @saved_cs_client */;
83
84 --
85 -- Dumping data for table `movie`
86 --
87
88 • LOCK TABLES `movie` WRITE;
89 • /*!40000 ALTER TABLE `movie` DISABLE KEYS */;
90 • INSERT INTO `movie` VALUES (1,'Godfather',2,140,'1979-09-12'),(2,'Impossible',4,120,'1995-09-12'),(3,'Moviee',3,143,'1993-12
91 • /*!40000 ALTER TABLE `movie` ENABLE KEYS */;
92 • UNLOCK TABLES;
```

4. Orders table

```
95      -- Table structure for table `orders`
96      --
97
98 •     DROP TABLE IF EXISTS `orders`;
99 •     /*!40101 SET @saved_cs_client      = @@character_set_client */;
100 •     /*!50503 SET character_set_client = utf8mb4 */;
101 •     CREATE TABLE `orders` (
102 •         `id` int NOT NULL,
103 •         `user_id` int DEFAULT NULL,
104 •         `show_id` int DEFAULT NULL,
105 •         `theater_id` int DEFAULT NULL,
106 •         `no_ticket` int DEFAULT NULL,
107 •         `total_price` int DEFAULT NULL,
108 •         PRIMARY KEY (`id`)
109 •     ) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
110 •     /*!40101 SET character_set_client = @saved_cs_client */;
111
112      --
113      -- Dumping data for table `orders`
114      --
115
116 •     LOCK TABLES `orders` WRITE;
117 •     /*!40000 ALTER TABLE `orders` DISABLE KEYS */;
118 •     INSERT INTO `orders` VALUES (1,1,1,1,2,20),(2,2,3,2,3,30),(3,3,2,1,1,10),(4,1,1,1,5,50);
119 •     /*!40000 ALTER TABLE `orders` ENABLE KEYS */;
120 •     UNLOCK TABLES;
121 •     /*!50003 SET @saved_cs_client      = @@character_set_client */ ;
```

5. Screen table

```
140      -- Table structure for table `screen`
141      --
142
143 •     DROP TABLE IF EXISTS `screen`;
144 •     /*!40101 SET @saved_cs_client      = @@character_set_client */;
145 •     /*!50503 SET character_set_client = utf8mb4 */;
146 •     CREATE TABLE `screen` (
147 •         `id` int NOT NULL,
148 •         `theater_id` int DEFAULT NULL,
149 •         `capacity` int DEFAULT NULL,
150 •         PRIMARY KEY (`id`)
151 •     ) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
152 •     /*!40101 SET character_set_client = @saved_cs_client */;
153
154      --
155      -- Dumping data for table `screen`
156      --
157
158 •     LOCK TABLES `screen` WRITE;
159 •     /*!40000 ALTER TABLE `screen` DISABLE KEYS */;
160 •     INSERT INTO `screen` VALUES (1,1,496),(2,1,498),(3,2,80),(4,2,100);
161 •     /*!40000 ALTER TABLE `screen` ENABLE KEYS */;
162 •     UNLOCK TABLES;
163 •     /*!50003 SET @saved_cs_client      = @@character_set_client */ ;
164 •     /*!50003 SET @saved_cs_results    = @@character_set_results */ ;
165 •     /*!50003 SET @saved_col_connection = @@collation_connection */ ;
166 •     /*!50003 SET character_set_client = utf8mb4 */ ;
```

6. Shows table

```
208 -- Table structure for table `shows`
209 --
210
211 • DROP TABLE IF EXISTS `shows`;
212 • /*!40101 SET @saved_cs_client = @@character_set_client */;
213 • /*!50503 SET character_set_client = utf8mb4 */;
214 • CREATE TABLE `shows` (
215     `id` int NOT NULL,
216     `screen_id` int DEFAULT NULL,
217     `movie_id` int DEFAULT NULL,
218     `start_time` datetime DEFAULT NULL,
219     `theater_id` int DEFAULT NULL,
220     PRIMARY KEY (`id`)
221 ) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;
222 • /*!40101 SET character_set_client = @saved_cs_client */;
223
224 --
225 -- Dumping data for table `shows`
226 --
227
228 • LOCK TABLES `shows` WRITE;
229 • /*!40000 ALTER TABLE `shows` DISABLE KEYS */;
230 • INSERT INTO `shows` VALUES (1,1,1,'2023-04-20 18:00:00',1),(2,2,1,'2023-04-20 20:30:00',1),(3,1,2,'2023-04-20 19:00:00',2),(
231 • /*!40000 ALTER TABLE `shows` ENABLE KEYS */;
232 • UNLOCK TABLES;
```

7. Trigger

```
DELIMITER ;;
/*!50003 CREATE*/ /*!50017 DEFINER=`root`@`localhost`*/ /*!50003 TRIGGER `update_screen_theater_capacity` AFTER UPDATE ON `sc
    IF NEW.capacity > OLD.capacity THEN
        UPDATE theater
        SET capacity = capacity + (NEW.capacity - OLD.capacity)
        WHERE id = OLD.theater_id;
    ELSE
        UPDATE theater
        SET capacity = capacity + (OLD.capacity - NEW.capacity)
        WHERE id = OLD.theater_id;
    END IF;
END */;;
DELIMITER ;
```