Experiment No 3 Database Management System Lab 2021-22 Faculty: Sana Shaikh

Class: SE Comp Experiment No: 3

Name : Ashish Jha Roll No. 27 Batch: B

Topic:	Create a database using Data Definition Language (DDL) commands for the assigned system.
Prerequisite:	Knowledge of SQL syntax.
Mapping With COs:	CSL402.2
Objective:	Execute all Data Definition Language commands and Table Creation and its management.
Outcome:	Student should be able to: -Explain the use of DDL commands. -Create new database tables by applying these commands. - Manage the structure of database.
Instructions:	1. This experiment is a compulsory experiment. All the students are required to perform this experiment individually. 2. Implement DDL commands for the assigned system.

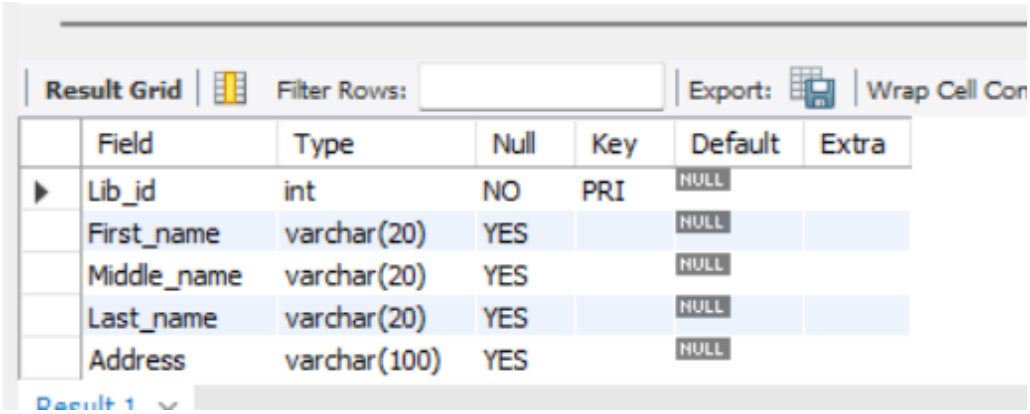
Deliverables:	**For Submissions:** 1. List down all DDL commands and write syntax of each DDL command. ANS : 1. CREATE - Creates object in the database / database object. Syntax : CREATE TABLE <Table Name>(list of attributes along with datatypes); 2. ALTER : Alters the structure of database / database object. Syntax : ALTER TABLE <Table name> new changes; 3. DROP : Deletes object from the database Syntax: DROP TABLE <Table_name> 4. TRUNCATE : Removes all the records from a table permanently Syntax : TRUNCATE TABLE <table name> 5. RENAME : Renames an object / attribute Syntax : ALTER TABLE <Table name> rename column<Old name> to <new name >; 2. Implemented all DDL queries with their output. -- to set database use mysql

```
-- Creating table
CREATE TABLE Librarian1(
Lib_id INT NOT NULL,
First_name VARCHAR(20),
Middle_name VARCHAR(20),
Last_name VARCHAR(20),
Address VARCHAR(100),
PRIMARY KEY (Lib_id)
);


-- to view the schema of table
DESC Librarian1;


-- to view the contents of table
select * from Librarian1;


-- to add new column to existing table
alter table Librarian1 add column contact int(10);


-- Renaming a column
```

	alter table Librarian1 rename column contact to phone_No; -- inserting values insert into Librarian1 values (120,"Aju","anu","ssss","This is address 1",12345); insert into Librarian1 values (14,"Anu","anna","zzzz","This is address 2",102030); insert into Librarian1 values (114,"Aja","apna","llllll","This is address 3",505050); -- Truncate table truncate table Librarian1; -- Drop table drop table Librarian1;

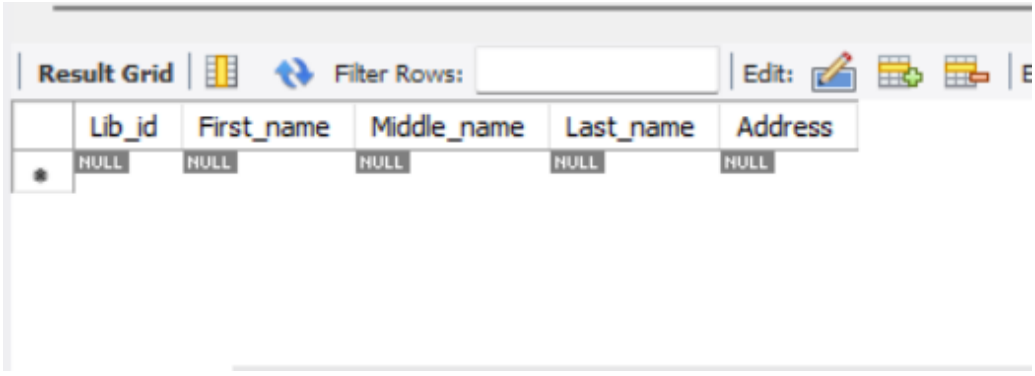
1. **Table creation**

   Logical view



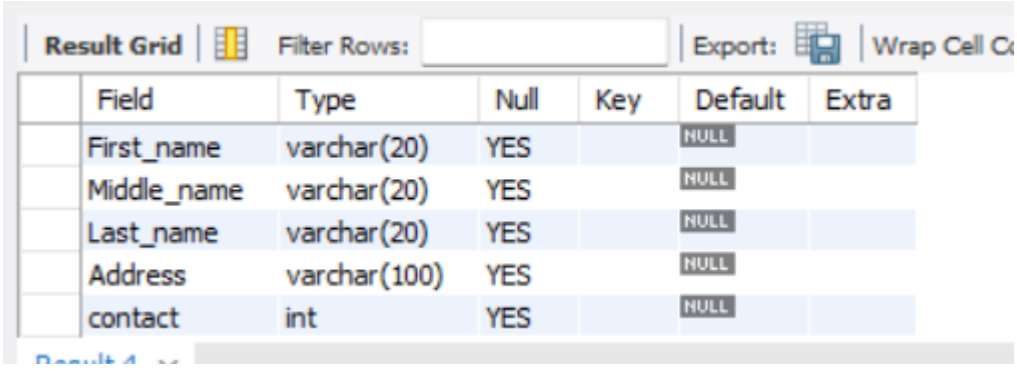
Field	Type	Null	Key	Default	Extra
Lib_id	int	NO	PRI	NULL	
First_name	varchar(20)	YES		NULL	
Middle_name	varchar(20)	YES		NULL	
Last_name	varchar(20)	YES		NULL	
Address	varchar(100)	YES		NULL	

Tabular view



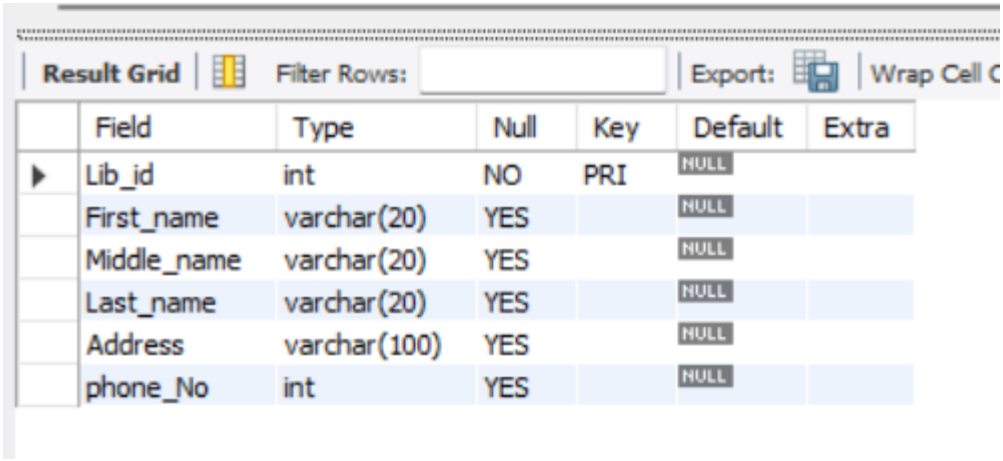
Lib_id	First_name	Middle_name	Last_name	Address
NULL	NULL	NULL	NULL	NULL

2. Adding new column (alter cammand)



Field	Type	Null	Key	Default	Extra
First_name	varchar(20)	YES		NULL	
Middle_name	varchar(20)	YES		NULL	
Last_name	varchar(20)	YES		NULL	
Address	varchar(100)	YES		NULL	
contact	int	YES		NULL	

3. Renaming a column (Alter command=d)

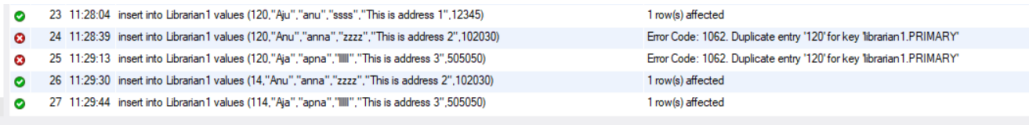


Result Grid | Filter Rows: | Export: | Wrap Cell C

Field	Type	Null	Key	Default	Extra
Lib_id	int	NO	PRI	NULL	
First_name	varchar(20)	YES		NULL	
Middle_name	varchar(20)	YES		NULL	
Last_name	varchar(20)	YES		NULL	
Address	varchar(100)	YES		NULL	
phone_No	int	YES		NULL	

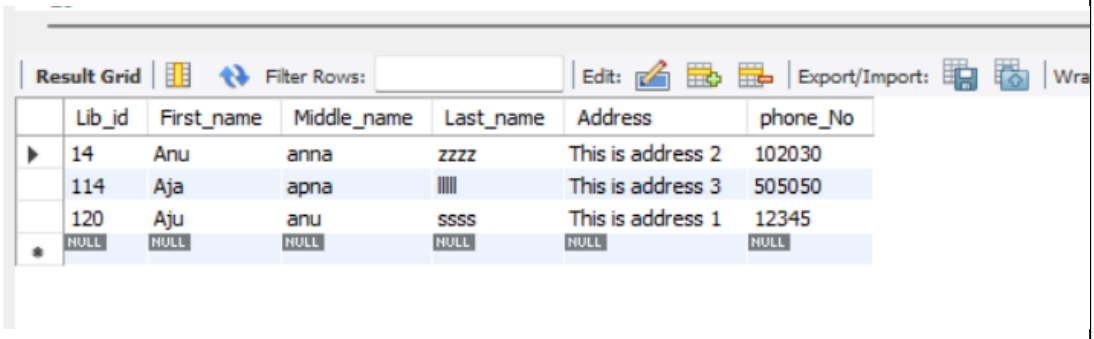
4. Inserting value to column

Error : if try to insert duplicate values in primary key :



23	11:28:04	insert into Librarian1 values (120,"Aju","anu","ssss","This is address 1",12345)	1 row(s) affected	
24	11:28:39	insert into Librarian1 values (120,"Anu","anna","zzzz","This is address 2",102030)	Error Code: 1062. Duplicate entry '120' for key 'librarian1.PRIMARY'	
25	11:29:13	insert into Librarian1 values (120,"Aja","apna","llll","This is address 3",505050)	Error Code: 1062. Duplicate entry '120' for key 'librarian1.PRIMARY'	
26	11:29:30	insert into Librarian1 values (14,"Anu","anna","zzzz","This is address 2",102030)	1 row(s) affected	
27	11:29:44	insert into Librarian1 values (114,"Aja","apna","llll","This is address 3",505050)	1 row(s) affected	

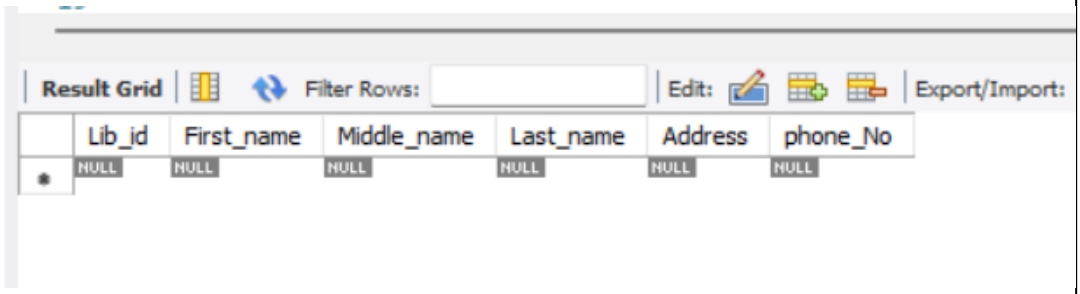
Table contents after inserting three values to it



Result Grid | Filter Rows: | Edit: | Export/Import: | Wra

Lib_id	First_name	Middle_name	Last_name	Address	phone_No
14	Anu	anna	zzzz	This is address 2	102030
114	Aja	apna	llll	This is address 3	505050
120	Aju	anu	ssss	This is address 1	12345
NULL	NULL	NULL	NULL	NULL	NULL

5. Truncate table

	 6. Drop table 
Conclusion:	able to create database structures using DDL commands. And modify them
References:	Database system concept by korth https://www.w3schools.com/sql/sql_insert.asp

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Class: SE Comp

Don Bosco Institute of Technology

Department of Computer Engineering

Assessment Rubric for Experiment No. 3

Title of Experiment : Create a database using DDL commands **Performance**
Date : 13-03-2022 : 2nd Year and IVth Semester **Submission Date : 13-03-2022**

Name: Ashish Jha **Batch : B**
Roll No. : 27

Sr. No.	Criteria	1 Marks	2 Marks	3 Marks	4 Marks	5 Marks
1	Execution	Executed 10-30% queries based on DDL commands.	Executed 31-50% queries based on DDL commands.	Executed 51-70% queries based on DDL commands.	Executed 71- 89% queries based on DDL commands.	Executed 90-100% queries based on DDL commands.
2	Documentation	20-39% of solution documented properly.	40-59% of solution documented properly.	60-79% of solution documented properly.	80-100% of solution documented properly.	
3	Viva	Students hardly answered.	Student has problems while answering.	Questions are answered fairly well.	Questions are answered completely and correctly.	
4	Submission on Time	Submitted after the given deadline	Submitted before the given deadline			