

Lab Report 02

COURSE CODE: CSE384

SUBMITTED BY:

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2023100000527

SECTION: 02

DEPARTMENT: CSE

SUBMITTED TO:

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Methodology

SQL Concepts Learned

- Alter table is used to modify existing tables by adding, dropping, or modifying columns and constraints without recreating the table.
- Check constraint ensures that only valid data is inserted.
- Default keyword automatically assigns a predefined value to a column when no value is provided during insertion.
- Drop table is Used to permanently delete an existing table and all its data.

SQL Techniques Used

1. Create the courses table first

• defined course_id as the primary key and course_name as not null to ensure every course has a name.

2. Add, modify, and drop columns in courses

- added credits column with a check constraint (1 to 5).
- added instructor column and later dropped it using alter table drop column.
- modified course name data type to varchar(100).

3. Create the tasks table

• created with task_id (primary key), task_name (not null), assigned_to (numeric), and deadline (date).

4. Add constraints, default values, and drop columns in tasks

- added status column with a default value 'pending'.
- applied a check constraint to restrict status to 'pending', 'in progress', or 'completed'.
- dropped the deadline column using alter table drop column.

Ans to the ques no 1

Create Table Courses

CREATE TABLE Courses (

Course_Id NUMERIC(5) PRIMARY KEY,

Course_Name VARCHAR(50) NOT NULL
);

#	Name	Туре	Collation	Attributes	Null	Default	Comments	Extra	Action		
1	Course_ld 🤌	decimal(5,0)			No	None			Change	Drop	More
2	Course_Name	varchar(50)	utf8mb4_general_ci		No	None			Change	Drop	More

Add a Column Credits

alter table courses
add Credits int(2);



Check Constraint

alter table courses
add constraint chk_val check (Credits between 1 and 5);

CONSTRAINT_CATALOG	CONSTRAINT_SCHEMA	TABLE_NAME	CONSTRAINT_NAME	CHECK_CLAUSE
def	lab2	students	chk_age	`age` >= 2 and `age` <= 18
def	mysql	global_priv	Priv	json_valid(`Priv`)
def	task2	courses	chk_val	'Credits' between 1 and 5

Add a Column Instructor

alter table courses add Instructor varchar(50);

# 1	Name	Туре	Collation	Attributes	Null	Default	Comments	Extra	Action		
1 (Course_ld 🔑	decimal(5,0)			No	None				Drop	More
2 (Course_Name	varchar(50)	utf8mb4_general_ci		No	None				Drop	More
3 (Credits	int(2)			Yes	NULL				Drop	More
4 I	nstructor	varchar(50)	utf8mb4_general_ci		Yes	NULL				Drop	More

Drop Column Instructor

alter table courses drop column Instructor;



Modify the Data Type

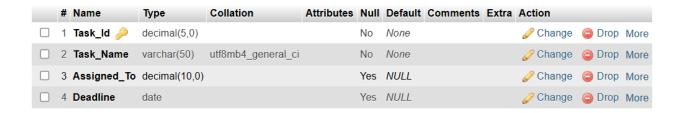
alter table courses modify Course_Name varchar(100);



Ans to the ques no 2

Create Table Tasks

```
create table Tasks(
    Task_Id numeric(5) primary key,
    Task_Name varchar(50) not null,
    Assigned_To numeric,
    Deadline date
);
```



Add a Column with Default Value

alter table tasks

add Status varchar(20) default 'Pending';



Add a Check Constraint

alter table tasks

add constraint chk_stat check (Status = 'Pending' or Status = 'In Progress' or Status = 'Completed');

CONSTRAINT_CATALOG	CONSTRAINT_SCHEMA	TABLE_NAME	CONSTRAINT_NAME	CHECK_CLAUSE
def	lab2	students	chk_age	`age` >= 2 and `age` <= 18
def	mysql	global_priv	Priv	json_valid(`Priv`)
def	task2	courses	chk_val	`Credits` between 1 and 5
def	task2	tasks	chk_stat	`Status` = 'Pending' or `Status` = 'In Progress' o

Drop Column Deadline

alter table tasks

drop column Deadline;

