# Government Engineering College, Thrissur CS333– Application Software Development Lab Documentation Exp 1 – DDL & DQL commands

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TCR18CS031

GECT CSE S5

# **Experiment 1**

#### **AIM**

Creation of database using DDL Commands and write DQL queries to retrieve information from the database

## **Description**

Creation of table using the DDL commands like CREATE DATABASE. Getting information about the database using DESCRIBE keyword. Here I have created the database for the Open PPM project. As explained in the introductory documentation Open PPM is Project Portfolio Management Tool for small IT companies

### **Output / Screenshots**

(11 Pages)

```
mysql> create database ppm_db;
Query OK, 1 row affected (0.00 sec)
```

```
mysql> use ppm_db;
Database changed
mysql> |
```

```
mysql> ALTER TABLE Contacts ADD FOREIGN KEY (CustomerID) REFERENCES Customers(ID);
Query OK, 0 rows affected (0.72 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> CREATE TABLE Designations
-> (
-> ID INT NOT NULL UNIQUE AUTO_INCREMENT,
-> Grade VARCHAR(8) NOT NULL,
-> Designation VARCHAR(50) NOT NULL,
-> PRIMARY KEY (ID)
-> );
Query OK, 0 rows affected (0.34 sec)

MYSQL> CREATE TABLE Consultants

CREATE TABLE Consultants

ADD FOREIGN KEY (ID)

FRIMARY KEY
```

```
mysql> CREATE TABLE Consultants
        ID INT NOT NULL UNIQUE AUTO INCREMENT,
        name VARCHAR(200) NOT NULL,
        phone VARCHAR(14) NOT NULL.
        email VARCHAR(200) NOT NULL,
        presentAddress VARCHAR(300) NOT NULL,
        pAddress VARCHAR(200) NOT NULL,
        designation INT NOT NULL,
        highest edu VARCHAR(100) NOT NULL,
        experience INT NOT NULL DEFAULT 0,
        PRIMARY KEY (ID),
        FOREIGN KEY ('designation') REFERENCES 'Designations'('ID')
   -> );
Query OK, 0 rows affected (0.45 sec)
mysql> show tables;
Tables_in_ppm_db |
 Consultants
 Contacts
 Customers
Designations
 rows in set (0.00 sec)
```

```
mysql> CREATE TABLE Projects
       ID INT NOT NULL UNIQUE AUTO_INCREMENT,
       Title VARCHAR(200) NOT NULL,
    -> Description VARCHAR(300) NOT NULL,
       CustomerID INT NOT NULL,
       PM INT NOT NULL.
    -> status INT NOT NULL,
   -> estimated effort DOUBLE(10, 2) NOT NULL DEFAULT 0,
    -> estimated_cost DOUBLE(10, 2) NOT NULL DEFAULT 0,
      pCompleted DOUBLE(5, 2) NOT NULL DEFAULT 0,
   -> Start Date DATETIME NOT NULL DEFAULT CURRENT TIMESTAMP,
    -> Finish Date DATETIME NOT NULL DEFAULT CURRENT TIMESTAMP, OUR
   -> PRIMARY KEY (ID),
   -> FOREIGN KEY (CustomerID) REFERENCES Customers(ID), DOUBLE (5)
       FOREIGN KEY (PM) REFERENCES Consultants(ID)
Query OK, 0 rows affected (0.34 sec)
mysql> show tables;
 Tables_in_ppm_db |
| Consultants
Contacts
 Customers
 Designations
| Projects
5 rows in set (0.00 sec)
```

```
mysql> CREATE TABLE Technology
        ID INT NOT NULL UNIQUE AUTO INCREMENT,
        Technology VARCHAR(200) NOT NULL,
        Version VARCHAR(10) NOT NULL,
        ProjectID INT NOT NULL,
        ConsultantID INT NOT NULL,
        PRIMARY KEY (ID),
        FOREIGN KEY (ProjectID) REFERENCES Projects(ID),
        FOREIGN KEY (ConsultantID) REFERENCES Consultants(ID) [10]
   -> );
Query OK, 0 rows affected (0.37 sec)
mysql> show tables:
 Tables_in_ppm_db
 Consultants
 Contacts
 Customers
 Designations
 Project Resources |
 Projects
 Technology
7 rows in set (0.00 sec)
```

```
mysql> CREATE TABLE Project_Transaction
        ID INT NOT NULL UNIQUE AUTO INCREMENT,
        Resource ID INT NOT NULL,
        Entry Date DATETIME NOT NULL DEFAULT CURRENT TIMESTAMP.
   -> Effort Spent DECIMAL(10, 2) NOT NULL DEFAULT 0,
   -> Percentage_Completed DECIMAL(5, 2) NOT NULL DEFAULT 0, UNIQUE
   -> ProjectID INT NOT NULL,
   -> ConsultantID INT NOT NULL,
   -> PRIMARY KEY (ID),
   -> FOREIGN KEY (ProjectID) REFERENCES Projects(ID), Completed
       FOREIGN KEY (ConsultantID) REFERENCES Consultants(ID)
   -> );
Query OK, 0 rows affected (0.37 sec)
mysql> show tables;
 Tables_in_ppm_db
 Consultants
 Contacts
Customers
Designations
| Project_Resources
| Project_Transaction |
Projects
| Technology
8 rows in set (0.00 sec)
```

```
mysql>
mysql> CREATE TABLE Project Resources
        ID INT NOT NULL UNIQUE AUTO_INCREMENT, PRIMARY KEY (ID),
   -> Project ID INT NOT NULL.
        Resource_ID INT NOT NULL,
        Hourly_Rate DOUBLE(12, 2) NOT NULL DEFAULT 0,
    -> Estimate_Effort DOUBLE(12, 2) NOT NULL DEFAULT 0,
    -> Actual_Effort DOUBLE(12, 2) NOT NULL DEFAULT 0,
        Relative Percentage completed DOUBLE(5, 2) NOT NULL DEFAULT 0,
        ConsultantID INT NOT NULL,
        ProjectID INT NOT NULL,
        PRIMARY KEY (ID),
       FOREIGN KEY (ProjectID) REFERENCES Projects(10),
FOREIGN KEY (ConsultantID) REFERENCES Consultants(ID)
   -> FOREIGN KEY (ProjectID) REFERENCES Projects(ID),
   -> );
Query OK, 0 rows affected (0.36 sec)
mysql> show tables;
Tables in ppm db
Consultants
 Contacts
 Customers
Designations
Project_Resources |
Projects
6 rows in set (0.00 sec)
```

```
Database changed
mysql>ashow tables;

| Tables_in_open_PpMeation date of a

| Consultant_Technologies |
| Consultants |
| Contacts |
| Customers |
| Designations |
| Project_Resources |
| Project_Technologies |
| Project_TransactionSQL warning |
| Projects |
| Projects |
| Technology happened? |
| Technology happened? |
| Towsoin set (0.000 sec) engine of
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	iv int(11) vi	NO	PRI MUL	TNULU  owin   auto_increment
3 rows thisete(	(0:00 sec)	ngine of		Here is the output displaying the sche

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Field	Type	Null			Extra	+-
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7 rows tin tsete (0.01 atsec)e engine of			Here is the	output disp	laying the s	schema.

```
mysal> describe Customers:
                                           rows in set (0.05 sec)
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 Name varchar(200)
                            NO
                                          NULL
 ID
             int(11)
                            NO
                                    PRI | NULLCreate auto incrementalas
            varchar(14)
                           NO
                                          NULL
 phone
 email<sup>ow</sup> do
            varchar(200) | NO
                                          NULLowing is the query.
             varchar(14)
                            YES
                                          NULL
 pAddress | int(11)
                            YES
                                  MUL myNULL show create table busi
 rows in sete(0.01 sec) engine of
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mysql> describe		na in	Syntax to show the schema of a table with the h
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3 rows in set			Here is the output displaying the schema.

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mysql> describe Project_Technologies; Syntax to show the schema of a table project_Technologies; Syntax to show the schema of a table project | Field | Type | Null | Key | Default (Fextratable your latable | ID® How do | Shint(11) SQL Normin | PRI | NULLe folk way to tincrement | ProjectID | int(11) | NO | MUL | NULL | | | TechID | Just | Just
```

```
mysgl> describe Project Resources;
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 Field
                                    int(11) ntax to show the soperial onor the with auto-therement
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int(11) ow cre
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                                                                   Nutabasejame.yourTableNam
 Resource_ID
 Hourly_Rate
                                    double(12,2) |
 Estimate Efforta MySQL warning
Actual_Effort
                                    double(12,2)//
                                                                   0.00
                                    double(12,2)
                                                                   0.00
 Relative_Percentage_completed | double(5,2) | NO create tan0.00usinks student
 rows in isete (0.00 isec) engine of
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mysql> describe Proj		Field	Туре	Null   Key	Default
+table in MySQL?	Туре	Null   Key	Default	YE! ExtraL	NULL
+ B How do I get the ci   ID   Title <sub>VSOL table</sub> ?   Description	varchar(200) varchar(300)		Varchar(166) NULL NULL NULL (0.05 se	auto_ing	rement   
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status HANA databa   estimated_effort   estimated_cost   pCompleted show a N   Start Date	int(11) double(10,2) double(10,2) double(5,2) datetime	NO     NO show crea   NO     NO The followin	NULL 10:00:ble yourl 0.00 g0:00e query. CURRENT TIMES	  Datab{sename.yo        TAMP	ourTableNam
Finish Dateappened	datetime		CURRENT_TIMES		udent;
11 rows in set (0.01	(a <b>sec</b> ) engine of	Here is the o	output displaying t	he schema.	

mysql> <sub>M</sub> describe Project_	Transaction;	++
Field Checking a table inside	Type a scriema in	Null   Key   Default   Syntax to show the schema of a table with the help of show create tab
ID SAP HANA database Resource_ID Entry_Date Effort Spenthow a MySQr Percentage_Completed ProjectID nappened?	<pre>int(11) int(11) datetime decimal(10,2) decimal(5,2) int(11)</pre>	NO   PRI   NULL   auto_increment
6 rows in set (0.00 sec)	e engine of	Here is the output displaying the schema.

mysql> describe Technology;		Syntax to show the schema of a table with t
Field   Type	Null	Key     Default     ExtrayourDataba   enam
ID <sup>®</sup> How do Ishotht(11)QL warnin   Technology   varchar(200)     Verston <sup>lust ha</sup> pppanachar(10)	NO   NO	PRIh fNULLing is thautorincrement     NULL       mys NULLshow create table business
3 rowshin sete(0.000sec) engin		Here is the output displaying the schema.