**MySQL-Umuzi Database**



**CONTENTS**

* Introduction
* Accessing MySQL
* Creating the whole database
* The database tables

**INTRODUCTION**

We are given an assignment/task to create a database from scratch and name it Umuzi, with the use of database management systems(DBMS) we are able to create, retrieve, update and even manage that data in that database.

We were assigned to use MySQL as our management system to create our database, we were also provided with the information that we are supposed to put in our tables and the instructions on how to go about finishing our task. After we are finished with creating tables and inserting the appropriate information we had to create or make queries regarding the database.

**Accessing MySQL**

First before we even start on creating anything, make sure you have MySQL server installed in your pc using the Ubuntu package manager(for Linux Ubuntu users): *sudo apt-get update* and *sudo apt-get install mysql-server.*

To access the server just run the following command to launch the mysql shell and enter it as root user: *sudo /usr/bin/mysql -u root -p.*

When your prompt for a password press ENTER to submit no password, then the following mysql shell prompt should appear: *mysql>.*

NB: To access your database: *$ mysql -h {hostname} -u username -p {databasename} Password: {your password}*

Then you can start creating your database.

**CREATING THE DATABASE**

**...AND THE TABLES.**

As we are done with making sure that we have mysql installed now we need to start creating our database with the use of our SQL knowledge.

1. Implementation of database creation:

CREATE DATABASE IF NOT EXISTS umuzi;

*CREATE DATABASE `umuzi` /\*!40100 DEFAULT CHARACTER SET latin1 \*/*

2. Implementation of table creation:

The tables created are :

* Customers
* Employees
* Orders
* Payments
* Products

customers | CREATE TABLE `customers` (

`customerID` int(11) NOT NULL AUTO\_INCREMENT,

`firstname` varchar(50) NOT NULL,

`lastname` varchar(50) NOT NULL,

`gender` varchar(30) NOT NULL,

`address` varchar(100) DEFAULT NULL,

`phone` int(10) unsigned DEFAULT NULL,

`email` varchar(100) DEFAULT NULL,

`city` varchar(50) DEFAULT NULL,

`country` varchar(50) DEFAULT NULL,

PRIMARY KEY (`customerID`)

) ENGINE=InnoDB AUTO\_INCREMENT=6 DEFAULT CHARSET=latin1 |

3. Implementation of inserting information:

Customers table:

INSERT INTO customers VALUES

(1, 'John', 'Hibert', 'Male', '284 chaucer st', 084789657, 'john@gmail.com','Johannesburg', 'South Africa');

INSERT INTO customers VALUES

(2, 'Thando', 'Sithole', 'Female', '240 Sect 1', 0794445584, 'thando@gmail.com','Cape Town', 'South Africa'),

(3, 'Leon', 'Glen', 'Male', '81 Everton Rd, Gillits', 0820832830, 'Leon@gmail.com','Durban', 'South Africa'),

(4, 'Charl', 'Muller', 'Male', '290A Dorset Ecke', 0856872553, 'Charl.muller@yahoo.com','Berlin', 'Germany'),

(5, 'Julia', 'Stein', 'Female', '2 Wernerring', 0867245058, 'Js234@yahoo.com','Frankfurt', 'Germany');

Information stored:

We are done creating our database, creating our tables and inserting the relevant information to the appropriate tables.

The information stored in our database is information like a customers first and last name, description of the product bought, payments made and any record that is relevant to the customer.

* *Customers table* contains the customer’s first and last name, gender, address, phone if they have any, email and city they live in.
* *Employees table* contains the employees of that particular company, their names, emails and job titles.
* *Orders table* contains the dates when an order was made, when it is supposed to be delivered and if it was shipped or not.
* *Payments table* has payment dates and how much the customer paid.
* *Products table* has the description and the name of the product and how much it costs.

Each table has a primary key which is the *table\_nameID* column, then the payments and customers table have a foreign key which is *customerID*.

**THE DATABASE TABLES**

This is how the tables look:

Customers table

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| customerID | firstname | lastname | gender | address | phone | email | city | country |

+------------+-----------+----------+--------+-----------------------+-----------+------------------------+--------------+--------------+

| 1 | Lerato | Mabitsa | Male | 284 chaucer st | 84789657 | john@gmail.com | Johannesburg | South Africa |

| 3 | Leon | Glen | Male | 81 Everton Rd,Gillits | 820832830 | Leon@gmail.com | Durban | South Africa |

| 4 | Charl | Muller | Male | 290A Dorset Ecke | 856872553 | Charl.muller@yahoo.com | Berlin| Germany |

| 5 | Julia | Stein | Female | 2 Wernerring | 867244558 | Js234@yahoo.com | Frankfurt | Germany |

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Employees table

+------------+-----------+----------+----------------+------------+

| employeeID | firstname | lastname | email | jobTitle |

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| 1 | Kani | Matthew | mat@gmail.com | Manager |

| 2 | Lesly | Cronje | LesC@gmail.com | Clerk |

| 3 | Gideon | Maduku | m@gmail.com | Accountant |

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Orders table

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| orderID | Order\_s | DateRequired | DateShipped | Status |

+---------+------------+--------------+-------------+-------------+

| 1 | 2018-09-01 | 2018-09-05 | 2018-09-02 | Not shipped |

| 2 | 2018-09-01 | 2018-09-04 | 2018-09-03 | Shipped |

| 3 | 2018-09-01 | 2018-09-03 | 2018-09-02 | Not shipped |

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Payments table

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| customerID | PaymentDate | amount |

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| 1 | 2018-09-01 | 100.00 |

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Products table

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| productID | productName | description | buyPrice |

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| 1 | Harley Davidson Chopper | This replica features working kickstand, front suspension, gear-shift lever | 150.75 |

| 2 | Classic car | Turnable front wheels, steering function | 550.75 |

| 3 | Sports car | Turnable from wheels, steering function | 700.60 |

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