

CRUD Operations



What is ACID?

A – Atomicity

Definition: A transaction is atomic—it either completes fully or doesn't happen at all.

- If any part of the transaction fails, the entire transaction is rolled back.
- Prevents partial updates to the database.

Example:

Imagine you're transferring money:

From Account A (Alice) to Account B (Bob).

Transaction steps:

- Debit \$100 from Alice.
- Credit \$100 to Bob.

If step 1 succeeds but step 2 fails due to a system crash:
Atomicity ensures Alice is not charged, and the whole transaction is undone.

C – Consistency

Definition: A transaction must transform the database from one valid state to another.

- Ensures database rules, such as constraints, are never violated.
- Maintains the integrity of the data.

Example:

If a rule says an account balance can't go negative:

- Before the transaction: Alice has \$100.
- A transaction trying to withdraw \$150 would be rejected.
- Consistency ensures that all business rules are respected.

I – Isolation

Definition: Concurrent transactions must not interfere with each other.

- Transactions appear to execute one at a time, even if they run concurrently.
- Ensures no dirty reads, non-repeatable reads, or phantom reads (depending on isolation level).

Example:

T1: Alice transfers \$50 to Bob.

T2: Charlie views Bob's balance.

Isolation ensures that T2 sees either the balance before or after T1, not an in-between state.

D – Durability

Definition: Once a transaction commits, its changes are permanent, even in the event of a system crash.

- Ensures that committed data is safely stored (typically in non-volatile memory).

Example:

- You book a movie ticket online.

- After the "Success" page, the server crashes.

- Durability ensures that your booking is saved and won't be lost.

Order BY

| By Default, its Ascending. | | | | | |
|----------------------------|--------------|-------------|-------------|--------------|--|
| ProductName | ProductColor | ProductSize | ProductCost | ProductPrice | |
| Road-350-W Yellow, 48 | Yellow | 48 | 1082.51 | 1700.99 | |
| Road-350-W Yellow, 40 | Yellow | 40 | 1082.51 | 1700.99 | |
| Road-350-W Yellow, 42 | Yellow | 42 | 1082.51 | 1700.99 | |
| Road-350-W Yellow, 44 | Yellow | 44 | 1082.51 | 1700.99 | |
| Mountain-200 Black, 38 | Black | 38 | 1105.81 | 2049.0982 | |
| Mountain-200 Black, 42 | Black | 42 | 1105.81 | 2049.0982 | |
| Mountain-200 Black, 46 | Black | 46 | 1105.81 | 2049.0982 | |
| Mountain-200 Silver, 38 | Silver | 38 | 1117.8559 | 2071.4196 | |
| Mountain-200 Silver, 42 | Silver | 42 | 1117.8559 | 2071.4196 | |
| Mountain-200 Silver, 46 | Silver | 46 | 1117.8559 | 2071.4196 | |
| Road-250 Black, 58 | Black | 58 | 1320.6838 | 2181.5625 | |
| Road-250 Black, 52 | Black | 52 | 1320.6838 | 2181.5625 | |
| Road-250 Black, 48 | Black | 48 | 1320.6838 | 2181.5625 | |
| Road-250 Black, 44 | Black | 44 | 1320.6838 | 2181.5625 | |
| Road-250 Red, 58 | Red | 58 | 1320.6838 | 2181.5625 | |
| Touring-1000 Blue, 54 | Blue | 54 | 1481.9379 | 2384.07 | |
| Touring-1000 Blue, 50 | Blue | 50 | 1481.9379 | 2384.07 | |
| Touring-1000 Blue, 46 | Blue | 46 | 1481.9379 | 2384.07 | |
| Touring-1000 Yellow, 60 | Yellow | 60 | 1481.9379 | 2384.07 | |
| Touring-1000 Yellow, 56 | Yellow | 56 | 1481.9379 | 2384.07 | |

```

mysql> SELECT
    -> ProductName, ProductColor , ProductSize, ProductCost, ProductPrice
    -> FROM Products
    -> WHERE productCost > 1000
    -> ORDER BY ProductPrice DESC;
+-----+-----+-----+-----+-----+
| ProductName | ProductColor | ProductSize | ProductCost | ProductPrice |
+-----+-----+-----+-----+-----+
| Road-150 Red, 62 | Red | 62 | 2171.2942 | 3578.27 |
| Road-150 Red, 44 | Red | 44 | 2171.2942 | 3578.27 |
| Road-150 Red, 48 | Red | 48 | 2171.2942 | 3578.27 |
| Road-150 Red, 52 | Red | 52 | 2171.2942 | 3578.27 |
| Road-150 Red, 56 | Red | 56 | 2171.2942 | 3578.27 |
| Mountain-100 Silver, 38 | Silver | 38 | 1912.1544 | 3399.99 |
| Mountain-100 Silver, 42 | Silver | 42 | 1912.1544 | 3399.99 |
| Mountain-100 Silver, 44 | Silver | 44 | 1912.1544 | 3399.99 |
| Mountain-100 Silver, 48 | Silver | 48 | 1912.1544 | 3399.99 |
| Mountain-100 Black, 38 | Black | 38 | 1898.0944 | 3374.99 |
| Mountain-100 Black, 42 | Black | 42 | 1898.0944 | 3374.99 |
| Mountain-100 Black, 44 | Black | 44 | 1898.0944 | 3374.99 |
| Mountain-100 Black, 48 | Black | 48 | 1898.0944 | 3374.99 |
| Road-250 Red, 44 | Red | 44 | 1518.7864 | 2443.35 |
| Road-250 Red, 48 | Red | 48 | 1518.7864 | 2443.35 |
| Road-250 Red, 52 | Red | 52 | 1518.7864 | 2443.35 |
+-----+-----+-----+-----+-----+

```

```

mysql> SELECT
    -> ProductName, ProductColor , ProductSize, ProductCost, ProductPrice
    -> FROM Products
    -> WHERE productCost > 1000 Product Price - High to Low
    -> ORDER BY ProductPrice DESC, ProductName;
+-----+-----+-----+-----+-----+
| ProductName | ProductColor | ProductSize | ProductCost | ProductPrice |
+-----+-----+-----+-----+-----+
| Road-150 Red, 44 | Red | 44 | 2171.2942 | 3578.27 |
| Road-150 Red, 48 | Red | 48 | 2171.2942 | 3578.27 |
| Road-150 Red, 52 | Red | 52 | 2171.2942 | 3578.27 |
| Road-150 Red, 56 | Red | 56 | 2171.2942 | 3578.27 |
| Road-150 Red, 62 | Red | 62 | 2171.2942 | 3578.27 |
| Mountain-100 Silver, 38 | Silver | 38 | 1912.1544 | 3399.99 |
| Mountain-100 Silver, 42 | Silver | 42 | 1912.1544 | 3399.99 |
| Mountain-100 Silver, 44 | Silver | 44 | 1912.1544 | 3399.99 |
| Mountain-100 Silver, 48 | Silver | 48 | 1912.1544 | 3399.99 |
| Mountain-100 Black, 38 | Black | 38 | 1898.0944 | 3374.99 |
| Mountain-100 Black, 42 | Black | 42 | 1898.0944 | 3374.99 |
| Mountain-100 Black, 44 | Black | 44 | 1898.0944 | 3374.99 |
| Mountain-100 Black, 48 | Black | 48 | 1898.0944 | 3374.99 |
| Road-250 Red, 44 | Red | 44 | 1518.7864 | 2443.35 |
| Road-250 Red, 48 | Red | 48 | 1518.7864 | 2443.35 |
| Road-250 Red, 52 | Red | 52 | 1518.7864 | 2443.35 |
| Touring-1000 Blue, 46 | Blue | 46 | 1481.9379 | 2384.07 |
| Touring-1000 Blue, 50 | Blue | 50 | 1481.9379 | 2384.07 |
+-----+-----+-----+-----+-----+

```

```

mysql> SELECT 1 2 3 4 5
    -> ProductName, ProductColor , ProductSize, ProductCost, ProductPrice
    -> FROM Products
    -> WHERE productCost > 1000
    -> ORDER BY ProductPrice DESC, ProductName;
+-----+-----+-----+-----+-----+
| ProductName | ProductColor | ProductSize | ProductCost | ProductPrice |
+-----+-----+-----+-----+-----+
| Road-150 Red, 62 | Red | 62 | 2171.2942 | 3578.27 |
| Road-150 Red, 56 | Red | 56 | 2171.2942 | 3578.27 |
| Road-150 Red, 52 | Red | 52 | 2171.2942 | 3578.27 |
| Road-150 Red, 48 | Red | 48 | 2171.2942 | 3578.27 |
| Road-150 Red, 44 | Red | 44 | 2171.2942 | 3578.27 |
| Mountain-100 Silver, 48 | Silver | 48 | 1912.1544 | 3399.99 |
| Mountain-100 Silver, 44 | Silver | 44 | 1912.1544 | 3399.99 |
| Mountain-100 Silver, 42 | Silver | 42 | 1912.1544 | 3399.99 |
| Mountain-100 Silver, 38 | Silver | 38 | 1912.1544 | 3399.99 |
| Mountain-100 Black, 48 | Black | 48 | 1898.0944 | 3374.99 |
| Mountain-100 Black, 44 | Black | 44 | 1898.0944 | 3374.99 |
| Mountain-100 Black, 42 | Black | 42 | 1898.0944 | 3374.99 |
| Mountain-100 Black, 38 | Black | 38 | 1898.0944 | 3374.99 |
| Road-250 Red, 52 | Red | 52 | 1518.7864 | 2443.35 |
| Road-250 Red, 48 | Red | 48 | 1518.7864 | 2443.35 |
| Road-250 Red, 44 | Red | 44 | 1518.7864 | 2443.35 |
| Touring-1000 Yellow, 60 | Yellow | 60 | 1481.9379 | 2384.07 |
| Touring-1000 Yellow, 54 | Yellow | 54 | 1481.9379 | 2384.07 |
| Touring-1000 Yellow, 50 | Yellow | 50 | 1481.9379 | 2384.07 |
+-----+-----+-----+-----+-----+
product Price is similar everywhere  
then it would be giving the  
priority to Product Name.

```

```

mysql> SELECT
    -> ProductName, ProductColor , ProductSize, ProductCost, ProductPrice
    -> FROM Products
    -> WHERE productCost > 1000
    -> ORDER BY 5 DESC, 3 ASC;
+-----+-----+-----+-----+-----+
| ProductName | ProductColor | ProductSize | ProductCost | ProductPrice |
+-----+-----+-----+-----+-----+
| Road-150 Red, 44 | Red | 44 | 2171.2942 | 3578.27 |
| Road-150 Red, 48 | Red | 48 | 2171.2942 | 3578.27 |
| Road-150 Red, 52 | Red | 52 | 2171.2942 | 3578.27 |
| Road-150 Red, 56 | Red | 56 | 2171.2942 | 3578.27 |
| Road-150 Red, 62 | Red | 62 | 2171.2942 | 3578.27 |
| Mountain-100 Silver, 38 | Silver | 38 | 1912.1544 | 3399.99 |
| Mountain-100 Silver, 42 | Silver | 42 | 1912.1544 | 3399.99 |
| Mountain-100 Silver, 44 | Silver | 44 | 1912.1544 | 3399.99 |
| Mountain-100 Silver, 48 | Silver | 48 | 1912.1544 | 3399.99 |
| Mountain-100 Black, 38 | Black | 38 | 1898.0944 | 3374.99 |
| Mountain-100 Black, 42 | Black | 42 | 1898.0944 | 3374.99 |
| Mountain-100 Black, 44 | Black | 44 | 1898.0944 | 3374.99 |
| Mountain-100 Black, 48 | Black | 48 | 1898.0944 | 3374.99 |
| Road-250 Red, 44 | Red | 44 | 1518.7864 | 2443.35 |
| Road-250 Red, 48 | Red | 48 | 1518.7864 | 2443.35 |
| Road-250 Red, 52 | Red | 52 | 1518.7864 | 2443.35 |
| Touring-1000 Yellow, 46 | Yellow | 46 | 1481.9379 | 2384.07 |
| Touring-1000 Blue, 46 | Blue | 46 | 1481.9379 | 2384.07 |
| Touring-1000 Yellow, 50 | Yellow | 50 | 1481.9379 | 2384.07 |

```

ALIASES "AS"

- It would be used for renaming columns/table name.

```

mysql> SELECT
    -> CONCAT(FirstName, " ", LastName)
    -> MaritalStatus, Gender, AnnualIncome,
    -> TotalChildren, EducationLevel
    -> FROM Customers
    -> LIMIT 10;
+-----+-----+-----+-----+-----+-----+-----+
| CONCAT(FirstName, " ", LastName) | MaritalStatus | Gender | AnnualIncome | TotalChildren | EducationLevel |
+-----+-----+-----+-----+-----+-----+
| JON YANG | M | M | $90,000 | 2 | Bachelors |
| EUGENE HUANG | S | M | $60,000 | 3 | Bachelors |
| RUBEN TORRES | M | M | $60,000 | 3 | Bachelors |
| CHRISTY ZHU | S | F | | 0 | Bachelors |
| ELIZABETH JOHNSON | S | F | $80,000 | 5 | Bachelors |
| JULIO RUIZ | S | M | $70,000 | 0 | Bachelors |
| MARCO MEHTA | M | M | $60,000 | 3 | Bachelors |
| ROBIN VERHOFF | S | F | $60,000 | 4 | Bachelors |
| SHANNON CARLSON | S | M | $70,000 | 0 | Bachelors |
| JACQUELYN SUAREZ | S | F | $70,000 | 0 | Bachelors |

```

```

mysql> SELECT
    -> CONCAT(FirstName, " ", LastName) AS FullName,
    -> MaritalStatus, Gender, AnnualIncome,
    -> TotalChildren, EducationLevel
    -> FROM Customers
    -> LIMIT 10;
+-----+-----+-----+-----+-----+-----+
| FullName | MaritalStatus | Gender | AnnualIncome | TotalChildren | EducationLevel |
+-----+-----+-----+-----+-----+-----+
| JON YANG | M | M | $90,000 | 2 | Bachelors |
| EUGENE HUANG | S | M | $60,000 | 3 | Bachelors |
| RUBEN TORRES | M | M | $60,000 | 3 | Bachelors |
| CHRISTY ZHU | S | F | | 0 | Bachelors |
| ELIZABETH JOHNSON | S | F | $80,000 | 5 | Bachelors |
| JULIO RUIZ | S | M | $70,000 | 0 | Bachelors |
| MARCO MEHTA | M | M | $60,000 | 3 | Bachelors |
| ROBIN VERHOFF | S | F | $60,000 | 4 | Bachelors |
| SHANNON CARLSON | S | M | $70,000 | 0 | Bachelors |
| JACQUELYN SUAREZ | S | F | $70,000 | 0 | Bachelors |

```

10 rows in set (0.00 sec)

Commenting in MySQL

1. Single line Comment : -- write the comment.
2. Multiline Comment - /* jibrish jibrish */

```
/*
SELECT
    CONCAT(FirstName, " ", LastName) AS FullName, -- fullName is used to save space.
    MaritalStatus, Gender, AnnualIncome,
    TotalChildren, EducationLevel
FROM Customers
LIMIT 10;
*/
```

How to Run ".sql file" on Command Line And Workbench.

```
CREATE DATABASE Sales_db;
USE Sales_db;
```

The screenshot shows the MySQL Workbench interface. On the left, the 'File' menu is open, with 'Open SQL Script...' highlighted. The main area displays the contents of 'sales_dataset.sql'. The database browser on the right shows the 'sales_db' schema with tables like 'calendar', 'customers', etc.

```
File Edit View Query Database Server Tools Scripting Help
New Model Ctrl+N
New Query Tab Ctrl+T
Open Model... Ctrl+O
Open SQL Script... Ctrl+Shift+O
Open Recent
Run SQL Script...
Close Connection Tab Ctrl+Shift+F4
Close Tab Ctrl+W
Save Script Ctrl+S
Save Script As... Ctrl+Shift+S
Revert to Saved
Exit Alt+F4

Administration Schemas
Information
Schema: bike_shop

File Edit View Query Database Server Tools Scripting Help
New Model Ctrl+N
New Query Tab Ctrl+T
Open Model... Ctrl+O
Open SQL Script... Ctrl+Shift+O
Open Recent
Run SQL Script...
Close Connection Tab Ctrl+Shift+F4
Close Tab Ctrl+W
Save Script Ctrl+S
Save Script As... Ctrl+Shift+S
Revert to Saved
Exit Alt+F4

MySQL dump 10.13 Distrib 8.0.40, for Win64 (x86_64)
Host: localhost Database: sql_datasets
Server version 8.0.40

!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 */;
10 • /*!50503 SET NAMES utf8 */;
11 • /*!40103 SET @OLD_TIME_ZONE=@@TIME_ZONE */;
12 • /*!40103 SET TIME_ZONE='+00:00' */;
13 • /*!40014 SET @OLD_UNIQUE_CHECKS=@@UNIQUE_CHECKS, UNIQUE_CHECKS=0 */;
14 • /*!40014 SET @OLD_FOREIGN_KEY_CHECKS=@@FOREIGN_KEY_CHECKS, FOREIGN_KEY_CHECKS=0 */;
15 • /*!40101 SET @OLD_SQL_MODE=@@SQL_MODE, SQL_MODE='NO_AUTO_VALUE_ON_ZERO' */;
16 • /*!40111 SET @OLD_SQL_NOTES=@@SQL_NOTES, SQL_NOTES=0 */;
17
18 --
19 -- Table structure for table `calendar`
20 --
21
22 • DROP TABLE IF EXISTS `calendar`;
23 • /*!40101 SET @saved_cs_client      = @@character_set_client */;
24 • /*!50503 SET character set client = utf8mb4 */;
```

```
mysql> DROP DATABASE Sales_db;
Query OK, 10 rows affected (0.11 sec)

mysql> CREATE DATABASE Sales_db;
Query OK, 1 row affected (0.01 sec)

mysql> USE Sales_db;
Database changed
mysql>
```

```
mysql> SOURCE C:\Users\krish\Downloads\sales_dataset.sql;
ERROR:
File failed to open file 'C:\Users\krish\Downloads\sales_dataset.sql', error: 2
mysql>
```

```
SOURCE C:/Users/krish/Downloads/sales_dataset.sql;
```

```
mysql> SHOW TABLES;
+-----+
| Tables_in_sales_db |
+-----+
| calendar
| customers
| product-categories
| product-subcategories
| products
| returns
| sales-2015
| sales-2016
| sales-2017
| territories
+-----+
10 rows in set (0.00 sec)
```

C - Create

R - Read

U - Update

D - Delete

Create Command...

Employees

```
- EmployeeID - Int - P.K,
- FirstName - Varchar(50) NOT NULL,
- LastName - Varchar(50) NOT NULL,
- Email - VARCHAR(100) UNIQUE NOT NULL,
- SALARY - DECIMAL(10,2),
- BirthDate - DATE NOT NULL,
- GENDER - Char(1)
- Active - BOOLEAN DEFAULT True
```

Google Form.

Not Null - Mandatory Field. *
Null - Optional.

Decimal(10,2)

999999999.99

```
CREATE TABLE Employees(
    EmployeeID INT PRIMARY KEY,
    FirstName VARCHAR(50) NOT NULL,
    LastName VARCHAR(50) NOT NULL,
    Email VARCHAR(100) UNIQUE NOT NULL,
    Salary DECIMAL(10,2),
    BirthDate DATE NOT NULL,
    Gender CHAR(1),
    Active BOOLEAN DEFAULT TRUE
);
```

```
mysql> SHOW DATABASES;
+-----+
| Database |
+-----+
| bike_shop |
| demo
| facebook
| information_schema
| mysql
| performance_schema
| sales_db
| shop
| sys
+-----+
9 rows in set (0.11 sec)

mysql> USE Bike_shop;
Database changed
mysql> SHOW TABLES;
+-----+
| Tables_in_bike_shop |
+-----+
| customers
| products
+-----+
2 rows in set (0.01 sec)
```

```
mysql> CREATE TABLE Employees(
    --> EmployeeID INT PRIMARY KEY,
    --> FirstName VARCHAR(50) NOT NULL,
    --> LastName VARCHAR(50) NOT NULL,
    --> Email VARCHAR(100) UNIQUE NOT NULL,
    --> Salary DECIMAL(10,2),
    --> BirthDate DATE NOT NULL,
    --> Gender CHAR(1),
    --> Active BOOLEAN DEFAULT TRUE
    --> );
Query OK, 0 rows affected (0.12 sec)

mysql> SHOW TABLES;
+-----+
| Tables_in_bike_shop |
+-----+
| customers
| employees
| products
+-----+
3 rows in set (0.00 sec)
```

```
mysql> DESC Employees;
+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| EmployeeID | int | NO | PRI | NULL |
| FirstName | varchar(50) | NO | | NULL |
| LastName | varchar(50) | NO | | NULL |
| Email | varchar(100) | NO | UNI | NULL |
| Salary | decimal(10,2) | YES | | NULL |
| BirthDate | date | NO | | NULL |
| Gender | char(1) | YES | | NULL |
| Active | tinyint(1) | YES | | 1 |
+-----+-----+-----+-----+-----+
8 rows in set (0.01 sec)
```

NULL - Yes [Optional Field]

NULL - No [Mandatory Field]

Tinyint(1) - Binary Value - 0/1 [F/T]

```
mysql> SELECT * FROM Employees;
Empty set (0.01 sec)
```

Insert Command

-- Single Insertion.

```
INSERT INTO Employees(EmployeeID, FirstName, LastName, Email, Salary, BirthDate)
VALUES(1212,"Abhishek","Behal"," abhishek@google.com",56560.56,"1991-01-01");
-- yyyy-mm-dd;
```

```
mysql> SELECT * FROM Employees;
+-----+-----+-----+-----+-----+-----+-----+-----+
| EmployeeID | FirstName | LastName | Email | Salary | BirthDate | Gender | Active |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 1212 | Abhishek | Behal | abhishek@google.com | 56560.56 | 1991-01-01 | NULL | 1 |
+-----+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)
```

Multiline Insertion Command.

```
INSERT INTO Employees(EmployeeID, FirstName, LastName, Email, Salary, BirthDate)
VALUES (2, 'Riya', 'Sharma', 'riya.sharma@example.com', 62500.00, '1993-07-15'),
(3, 'Rahul', 'Verma', 'rahulv@gmail.com', 51000.75, '1989-12-05'),
(4, 'Neha', 'Kapoor', 'neha.kapoor@company.com', 72000.00, '1990-03-22'),
(5, 'Aman', 'Singh', 'aman.singh@yahoo.com', 58000.10, '1992-10-10');
```

```

mysql> INSERT INTO Employees(EmployeeID, FirstName, LastName, Email, Salary, BirthDate)
-> VALUES (2, 'Riya', 'Sharma', 'riya.sharma@example.com', 62500.00, '1993-07-15'),
-> (3, 'Rahul', 'Verma', 'rahulv@gmail.com', 51000.75, '1989-12-05'),
-> (4, 'Neha', 'Kapoor', 'neha.kapoor@company.com', 72000.00, '1990-03-22'),
-> (5, 'Aman', 'Singh', 'aman.singh@yahoo.com', 58000.10, '1992-10-10');
Query OK, 4 rows affected (0.02 sec)
Records: 4 Duplicates: 0 Warnings: 0

```

```
mysql> SELECT * FROM Employees;
```

| EmployeeID | FirstName | LastName | Email | Salary | BirthDate | Gender | Active |
|------------|-----------|----------|-------------------------|----------|------------|--------|--------|
| 2 | Riya | Sharma | riya.sharma@example.com | 62500.00 | 1993-07-15 | NULL | 1 |
| 3 | Rahul | Verma | rahulv@gmail.com | 51000.75 | 1989-12-05 | NULL | 1 |
| 4 | Neha | Kapoor | neha.kapoor@company.com | 72000.00 | 1990-03-22 | NULL | 1 |
| 5 | Aman | Singh | aman.singh@yahoo.com | 58000.10 | 1992-10-10 | NULL | 1 |
| 1212 | Abhishek | Behal | abhishek@google.com | 56560.56 | 1991-01-01 | NULL | 1 |

5 rows in set (0.00 sec)

Note: If you are skipping the mandatory field, insert command won't work.

```

mysql> INSERT INTO Employees(FirstName, Email, BirthDate, EmployeeID)
-> VALUES("Krishna","krishna@gmail.com", "1990-01-01", 132332);
ERROR 1364 (HY000): Field 'LastName' doesn't have a default value
mysql>

```

INSERT INTO Employees(FirstName, Email, BirthDate, EmployeeID, LastName) parameter
VALUES("Krishna", "krishna@gmail.com", "1990-01-01", 132332, "Madan"); argument

- Number of parameter and the number of arguments needs to be same.
- Order should be observed well.
- You have to fill with the values correctly in the arguments corresponding to its desired parameter.
- Fill the correct data type as well.

```

mysql> INSERT INTO Employees(FirstName, Email, BirthDate, EmployeeID, LastName)
-> VALUES("Krishna", "krishna@gmail.com", "1990-01-01", 132332, "Madan");
Query OK, 1 row affected (0.01 sec)

```

| EmployeeID | FirstName | LastName | Email | Salary | BirthDate | Gender | Active |
|------------|-----------|----------|-------------------------|----------|------------|--------|--------|
| 2 | Riya | Sharma | riya.sharma@example.com | 62500.00 | 1993-07-15 | NULL | 1 |
| 3 | Rahul | Verma | rahulv@gmail.com | 51000.75 | 1989-12-05 | NULL | 1 |
| 4 | Neha | Kapoor | neha.kapoor@company.com | 72000.00 | 1990-03-22 | NULL | 1 |
| 5 | Aman | Singh | aman.singh@yahoo.com | 58000.10 | 1992-10-10 | NULL | 1 |
| 1212 | Abhishek | Behal | abhishek@google.com | 56560.56 | 1991-01-01 | NULL | 1 |
| 132332 | Krishna | Madan | krishna@gmail.com | NULL | 1990-01-01 | NULL | 1 |

6 rows in set (0.00 sec)

```
mysql> INSERT INTO Employees(EmployeeID, FirstName, LastName, Email, Salary, BirthDate)
-> VALUES (2, 'Vineet', 'Dhaka', 'vineet.Dhaka@example.com', 62500.00, '1993-07-15');
ERROR 1062 (23000): Duplicate entry '2' for key 'employees.PRIMARY'
```

```
mysql> INSERT INTO Employees(EmployeeID, FirstName, LastName, Email, Salary, BirthDate, active)
-> VALUES (12, 'Vineet', 'Dhaka', 'vineet.Dhaka@example.com', 62500.00, '1993-07-15', 0);
Query OK, 1 row affected (0.01 sec)
```

```
mysql> SELECT * FROM Employees;
```

| EmployeeID | FirstName | LastName | Email | Salary | BirthDate | Gender | Active |
|------------|-----------|----------|--------------------------|----------|------------|--------|--------|
| 2 | Riya | Sharma | riya.sharma@example.com | 62500.00 | 1993-07-15 | NULL | 1 |
| 3 | Rahul | Verma | rahulv@gmail.com | 51000.75 | 1989-12-05 | NULL | 1 |
| 4 | Neha | Kapoor | neha.kapoor@company.com | 72000.00 | 1990-03-22 | NULL | 1 |
| 5 | Aman | Singh | aman.singh@yahoo.com | 58000.10 | 1992-10-10 | NULL | 1 |
| 12 | Vineet | Dhaka | vineet.Dhaka@example.com | 62500.00 | 1993-07-15 | NULL | 0 |
| 1212 | Abhishek | Behal | abhishek@google.com | 56560.56 | 1991-01-01 | NULL | 1 |
| 132332 | Krishna | Madan | krishna@gmail.com | NULL | 1990-01-01 | NULL | 1 |

7 rows in set (0.00 sec)

```
mysql> INSERT INTO Employees(EmployeeID, FirstName, LastName, Email, Salary, BirthDate)
-> VALUES (14, 'Vineet', 'Dholakiya', 'vineet.Dhaka@example.com', 62500.00, '1993-07-15');
ERROR 1062 (23000): Duplicate entry 'vineet.Dhaka@example.com' for key 'employees.Email'
mysql>
```