INSERT - To insert data into a new row into an existing table.

With Good Data:

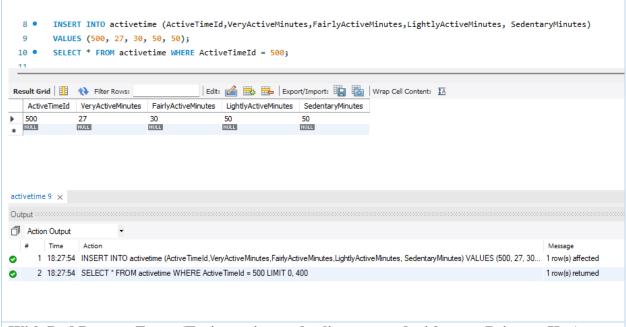
SQL Query:

INSERT INTO activetime

(ActiveTimeId,VeryActiveMinutes,FairlyActiveMinutes,LightlyActiveMinutes, SedentaryMinutes)

VALUES (500, 27, 30, 50, 50);

Results:

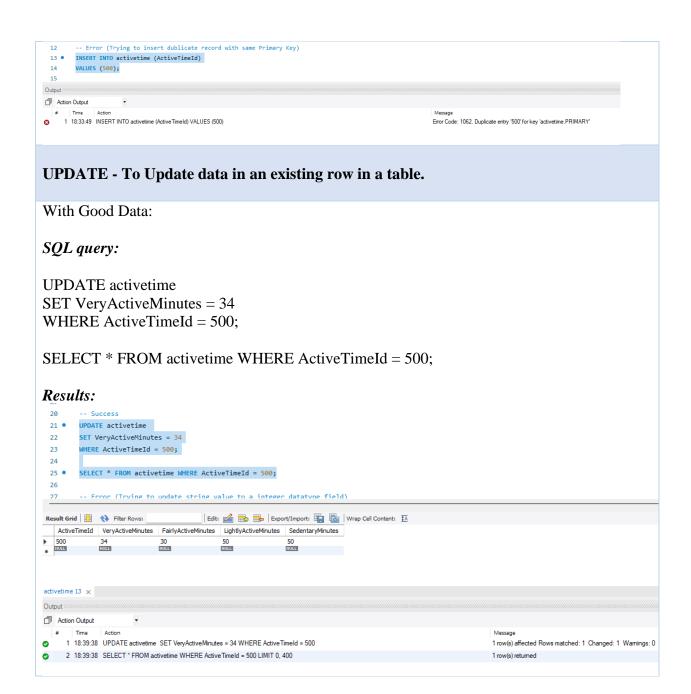


With Bad Data: -- Error (Trying to insert duplicate record with same Primary Key)

SQL Query:

INSERT INTO activetime (ActiveTimeId) VALUES (500);

Results:



With Bad Data: Trying to update string value to a integer datatype field SQL query: **UPDATE** activetime SET VeryActiveMinutes = 'Test' WHERE ActiveTimeId = 500; Results: 27 -- Error (Trying to 28 • UPDATE activetime SET VeryActiveMinutes = 'Test' WHERE ActiveTimeId = 500; Output :::: Action Output Time Action Time Action 1 18:42:50 UPDATE activetime SET VeryActiveMinutes = 'Test' WHERE ActiveTimeId = 500 Error Code: 1366. Incorrect integer value: 'Test' for column 'VeryActiveMinutes' at row 1 DELETE - delete data a row in an existing table With Good Data: SQL query: **DELETE FROM activeTime** WHERE ActiveTimeId = 500; Results: 34 -- Success 35 • DELETE FROM activeTime WHERE ActiveTimeId = 500; □ Action Output # | Time | Action 1 18:45:33 DELETE FROM activeTime WHERE ActiveTimeId = 500 1 row(s) affected With Bad Data: DataType mismatch SQL query: DELETE FROM activeTime WHERE ActiveTimeId = 'Test'; Results:

Function: GET_AVG_SLEEPTIME (To get the avg sleep time of user, Input Parameter: User Id)

```
With Good data -
SQL code:
USE fitbit_db;
DROP FUNCTION IF EXISTS get_avg_sleeptime;
DELIMITER //
CREATE FUNCTION get_avg_sleeptime (
user_id BIGINT)
RETURNS double
DETERMINISTIC READS SQL DATA
BEGIN
DECLARE avg_sleeptime double;
SELECT
  ROUND(AVG(TotalMinutesAsleep), 2)
INTO avg_sleeptime FROM
  sleeptime
    JOIN
  dailyactivity ON sleeptime.SleepId = dailyactivity.SleepId
WHERE
  Id = user_id;
RETURN round((avg_sleeptime / 60.0), 2);
END//
select get_avg_sleeptime(1503960366);
Results:
```

```
🚞 🔚 | 🥖 😿 👰 🕛 | 🔂 | 🕢 🔕 🔞 | Limit to 400 rows
                                                              - | 🏡 | 🥩 🔍 🗻 🖘
  3 •
         DROP FUNCTION IF EXISTS get_avg_sleeptime;
         DELIMITER //
  6 • ○ CREATE FUNCTION get_avg_sleeptime (
         user_id BIGINT)
  7
         RETURNS double
  8
         DETERMINISTIC READS SQL DATA

→ BEGIN

 10
         DECLARE avg_sleeptime double;
 11
 12
             ROUND(AVG(TotalMinutesAsleep), 2)
 14
         INTO avg_sleeptime FROM
             sleeptime
                  JOIN
 16
             dailyactivity ON sleeptime.SleepId = dailyactivity.SleepId
 17
         WHERE
 18
 19
             Id = user id;
         RETURN round((avg_sleeptime / 60.0), 2);
 20
 21
         END//
 22
 23 •
         select get avg sleeptime(1503960366);
                                           Export: Wrap Cell Content: IA
get_avg_sleeptime(1503960366)
6.21
Result 1 x
Action Output
        Time
                Action
                                                             Message
      1 00:44:11 USE fitbit_db
                                                            0 row(s) affected
      2 00:44:11 DROP FUNCTION IF EXISTS get_avg_sleeptime
                                                            0 row(s) affected
      3 00:44:11 CREATE FUNCTION get_avg_sleeptime (user_id BIGINT... 0 row(s) affected
      4 00:44:11 select get_avg_sleeptime(1503960366) LIMIT 0, 400;
                                                            1 row(s) returned
```

With Bad data: Passing wrong data type. SQL code: select get_avg_sleeptime("user A"); Results: 23 • select get_avg_sleeptime("user A"); Output :: Action Output Time Action 1 00:53:21 USE fitbit_db 0 row(s) affected 2 00:53:21 DROP FUNCTION IF EXISTS get_avg_sleeptime 0 row(s) affected 3 00:53:21 CREATE FUNCTION get_avg_sleeptime (user_id BIGINT)... 0 row(s) affected 4 00:53:21 select get_avg_sleeptime("user A") LIMIT 0, 400; Error Code: 1366. Incorrect integer value: 'user A' for column 'user_id' at row 1

Stored procedure- HEALTH_STATUS

This stored procedure will return the average steps counts, average sleep time, average calories, average distance and health status for a user, input parameter: UserID;

We have considered the below criteria to determine health Status.

Number of Steps - more than 1000 per day Calories burnt - more than 2000 Sleep time: 7 to 9 hrs of sleep Distance: 6 miles per day

Health Status - Healthy If User satisfies above conditions.

With good Data: SQL Code: USE fitbit_db; DROP PROCEDURE IF EXISTS health_status; DELIMITER // CREATE PROCEDURE health_status

```
id_param BIGINT)
BEGIN
DECLARE avg_steps_var DOUBLE;
DECLARE no_of_records INT;
                avg_distance_var DOUBLE;
DECLARE
DECLARE avg calories var DOUBLE;
DECLARE user_status TEXT;
DECLARE avg sleeptimehrs DOUBLE;
SET avg sleeptimehrs = get avg sleeptime(id param);
SELECT
  ROUND(AVG(TotalSteps), 2),
  ROUND(AVG(TotalDistance), 2),
  ROUND(AVG(Calories), 2),
  COUNT(*)
INTO avg_steps_var, avg_distance_var, avg_calories_var, no_of_records FROM
  fitbit_db.dailyactivity
WHERE
  Id = id_param;
  IF(avg_steps_var > 1000) AND (avg_calories_var > 2000) AND (avg_distance_var > 6)
and (avg sleeptimehrs > 7 OR avg sleeptimehrs < 9) THEN
  SET user_status = "Healthy";
  ELSE
  SET user_status = "Needs to work on Health";
  END IF:
SELECT
  avg_steps_var AS Average_StepsCount,
  avg_distance_var AS Avgerage_Distance,
  avg_calories_var AS Average_ColoriesBurn,
  avg sleeptimehrs as Average sleeptime,
  no_of_records,
        user_status AS Health_Status;
END//
DELIMITER;
CALL health status(1503960366);
Results:
```

