MySQL Stored Procedures Exercises

-GURU ABBISHEIK S

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1. SIMPLE STORED PROCEDURES

```
DELIMITER $$

CREATE PROCEDURE id()

BEGIN

SELECT fullname AS Fullname, email AS Email, id AS StudentID, college AS College FROM
students;

END$$

DELIMITER ;
```

#PROCEDURE CALL / EXECUTION

```
CALL id();
```

#OUTPUT

Fullname	Email	StudentID	College
AKHIL GUNJA	[illegible]ail.com	[illegible]11901	[illegible] College
ANUSHA YALAMANCHILI	[illegible]angel@gmail.com	[illegible]11902	[illegible] College
AQEELUDDIN SHAIK	[illegible]il.com	[illegible]11903	[illegible] College
ARUN SUBASH BANDI	[illegible]@gmail.com	[illegible]11904	[illegible] College
GOVINDA SOMA SAI SARVESH REDDY CHIRASANI	[illegible]34@gmail.com	[illegible]11905	[illegible] College

2. STORED PROCEDURES WITH USING VARIABLES

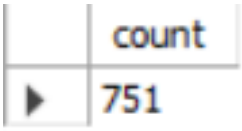
#Use this DB and drop the procedure name if already exists

```
USE `course_dedication_fortnite`;

DROP procedure IF EXISTS `course_dedication`;


DELIMITER $$

CREATE PROCEDURE `course_dedication` ()

BEGIN

DECLARE count INT DEFAULT 0;

SELECT COUNT(*) INTO count FROM ff_1;

SELECT count;

END$$
```

#PROCEDURE CALL / EXECUTION

```
CALL course_dedication();
```

#OUTPUT



	count
▶	751

3. STORED PROCEDURES WITH PARAMETERS (1)

```
USE `course_dedication_fortnite`;
DROP procedure IF EXISTS `course_dedication_w_para`;

DELIMITER $$
CREATE PROCEDURE `course_dedication_w_para` (
#Incoming Data with data type
IN user varchar(255)
)
BEGIN
SELECT * FROM ff_1 WHERE username = user;
END$$
```

#PROCEDURE CALL / EXECUTION

```
CALL course_dedication_w_para('XXX01131926');
```

#OUTPUT

	fname	lname	username	email	course_dedication
▶	S	MOHANA KRISHNAN	[redacted]01131926	[redacted]pm@gmail.com	4 mins 41 secs

4. STORED PROCEDURES WITH PARAMETERS (2)

```
USE `student_id`;

DROP procedure IF EXISTS `college_count`;

DELIMITER $$

CREATE PROCEDURE `college_count` (

#Incoming Data with data type

IN clg varchar(255),

#Outgoing / Return Data with data type

OUT clg_count INT

)

BEGIN

SELECT COUNT(*) INTO clg_count FROM lscid WHERE college = clg;

END$$
```

#PROCEDURE CALL / EXECUTION

```
CALL college_count('XXXXX College',@clg_count); #('IN Data', '@Return_Data')

SELECT @clg_count;
```

#OUTPUT

	@clg_count
▶	30

5. STORED PROCEDURES WITH CONDITIONAL STATEMENTS (IF / ELSE)

```
USE `workbook`;

DROP PROCEDURE IF EXISTS `bank_ifloop`;


DELIMITER $$

CREATE PROCEDURE `bank_ifloop`(

        IN customernumber INT,
```

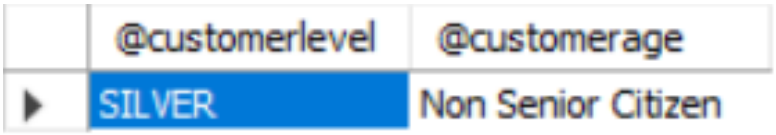
```
    OUT customerlevel varchar(20),
    OUT customerage varchar(20)
)
BEGIN
        DECLARE credit DECIMAL(10,2) DEFAULT 0;
        DECLARE age INT DEFAULT 0;
    SELECT balance INTO credit FROM bank WHERE id = customernumber;
    SELECT age INTO age FROM bank WHERE id = customernumber;

#IF, ELSE, ELSEIF Conditional Statement
        IF credit < 500 THEN
                SET customerlevel = 'SILVER';
        ELSEIF credit < 5000 THEN
                SET customerlevel = 'GOLD';
        ELSE
                SET customerlevel = 'PLATINUM';
        END IF;

        IF age >= 60 THEN
                SET customerage = 'Senior Citizen';
        ELSE
                SET customerage = 'Non Senior Citizen';
        END IF;
END$$
DELIMITER ;
```

#PROCEDURE CALL / EXECUTION

```
call bank_ifloop('5', @customerlevel, @customerage);
```
#('IN Data',@Return1,#Return2)

```
SELECT @customerlevel,@customerage;
```

#OUTPUT



	@customerlevel	@customerage
▶	SILVER	Non Senior Citizen

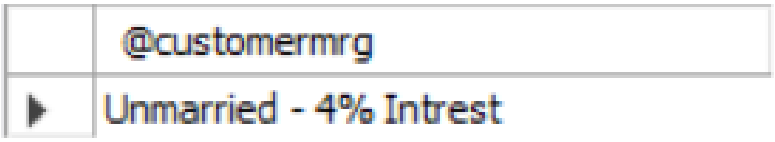
6. STORED PROCEDURES WITH CONDITIONAL STATEMENTS (CASE / SWITCH)

```
USE `workbook`;
DROP PROCEDURE IF EXISTS `bank_case`;

DELIMITER $$
CREATE PROCEDURE `bank_case`(
IN customernumber INT,
OUT customermrg varchar(100)
)
BEGIN
DECLARE mrg VARCHAR(20) DEFAULT 0;
SELECT marital INTO mrg FROM bank WHERE id = customernumber;

  CASE mrg
        WHEN 'married' THEN
              SET customermrg='Married - 8% Intrest';
        WHEN 'single' THEN
              SET customermrg='Unmarried - 4% Intrest';
        ELSE
              SET customermrg='Others - 5% Intrest';
        END CASE;
END$$
DELIMITER ;
```

#PROCEDURE CALL / EXECUTION

```
call bank_case('88', @customermrg);

SELECT @customermrg;
```

#OUTPUT



	@customermrg
▶	Unmarried - 4% Intrest

7. STORED PROCEDURES WITH LOOPs (WHILE)

#Creating a new Table namely Calendars

```
CREATE TABLE calendars(
   id INT AUTO_INCREMENT,
   fulldate DATE UNIQUE,
   day TINYINT NOT NULL,
   month TINYINT NOT NULL,
   quarter TINYINT NOT NULL,
   year INT NOT NULL,
   PRIMARY KEY(id)
);
```

#Creating a new Procedure to Insert a Date from the another Procedure into the table we Created

```
DELIMITER $$
CREATE PROCEDURE insertcalendar(
IN dt DATE
)
BEGIN
        INSERT INTO calendars(fulldate,
```

```
    day,
    month,
    quarter,
    year) VALUES (dt,
    EXTRACT(DAY FROM dt),
    EXTRACT(MONTH FROM dt),
    EXTRACT(QUARTER FROM dt),
    EXTRACT(YEAR FROM dt)
    );
END$$
DELIMITER ;
```

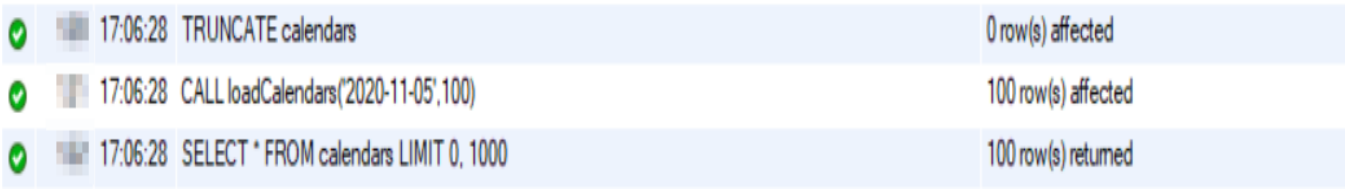
#Creating a Procedure with While Loop to Create List of Dates.

```
DELIMITER %%
CREATE PROCEDURE loadcalendars(
        IN startDate DATE,
  IN day INT
  )
BEGIN
        DECLARE counter INT DEFAULT 1;
  DECLARE dt DATE DEFAULT startDate;

  WHILE counter <= day DO
                CALL insertcalendar(dt);
    SET counter = counter + 1;
    set dt = DATE_ADD(dt,INTERVAL 1 day);
        END WHILE;
END%%
DELIMITER ;
```

#PROCEDURE CALL / EXECUTION

```
TRUNCATE calendars;

CALL loadCalendars('2020-11-05',100);

SELECT * FROM calendars;
```

#OUTPUT



17:06:28	TRUNCATE calendars	0 row(s) affected
17:06:28	CALL loadCalendars('2020-11-05',100)	100 row(s) affected
17:06:28	SELECT * FROM calendars LIMIT 0, 1000	100 row(s) returned

id	fulldate	day	month	quarter	year
1	2020-11-05	5	11	4	2020
2	2020-11-06	6	11	4	2020
3	2020-11-07	7	11	4	2020
4	2020-11-08	8	11	4	2020
5	2020-11-09	9	11	4	2020
6	2020-11-10	10	11	4	2020
7	2020-11-11	11	11	4	2020
8	2020-11-12	12	11	4	2020
9	2020-11-13	13	11	4	2020
10	2020-11-14	14	11	4	2020
11	2020-11-15	15	11	4	2020

8. STORED PROCEDURES WITH LOOPs (REPEAT)

```
DELIMITER $$

CREATE PROCEDURE Repeatpro (

IN count INT,

OUT resultout VARCHAR(50)

)

BEGIN

   DECLARE counter INT DEFAULT 1;

   DECLARE result VARCHAR(100) DEFAULT '';
```

```
    REPEAT
      SET result = CONCAT(result,counter,',');
      SET counter = counter + 1;
    UNTIL counter >= count
    END REPEAT;

     SELECT result INTO resultout;
END$$
DELIMITER ;
```

#PROCEDURE CALL / EXECUTION

```
CALL Repeatpro (20, @resultout);
SELECT @resultout;
```

#OUTPUT

✓	127	17:19:47	CREATE PROCEDURE Repeatpro (IN count INT, OUT resultout VARCHAR(50)) BEGIN	DECLARE count...	0 row(s) affected
✓	128	17:20:02	CALL Repeatpro (20, @resultout)		1 row(s) affected
✓	129	17:20:17	SELECT @resultout LIMIT 0, 1000		1 row(s) returned

	@resultout
▶	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18...