

Lab 5: Stored Procedures and Triggers

Lab_5_Suraj_BHAttarai_38

1. Write a stored procedure named "GetEmployee()" to get name, birthdate, address of employees.

Ans:

Query:

```
DELIMITER //
```

```
CREATE PROCEDURE GetEmployee()
```

```
BEGIN
```

```
    SELECT Ename, Bdate, Address FROM Employee;
```

```
END //
```

```
DELIMITER ;
```

Result:

Query OK, 0 rows affected (0.01 sec)

2. Execute the procedure in Q.1 and show the result.

Ans:

Query:

```
CALL GetEmployee();
```

Result:

	Ename	Bdate	Address
	Sita	1990-05-02	australia
	pratiksha	2061-05-07	dang
▶	Ram	2024-01-03	ktm-2
	SuraJ	2024-07-03	lalitpur-2
	hari	2024-08-03	lamahi-2

3. Write a stored procedure to get PF category name, Amount and start date where the amount is greater than provided input value. Your procedure should contain an IN parameter named amt to take input value of amount. Call the procedure with inputs 1000 and 3000 respectively.

Ans:

Query:

```
DELIMITER //
```

```
CREATE PROCEDURE GetPFCategories(IN amt INT)
```

```
BEGIN
```

```
    SELECT PFCategoryName, Amount, Start_date FROM PF WHERE Amount > amt;
```

```
END;
```

```
DELIMITER ;
```

Result:

Query OK, 0 rows affected (0.01 sec)

Calling the procedure with inputs 1000 and 3000 respectively:

Query: CALL GetPFCategories(1000);



Result

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	PFCategoryName	Amount	Start_date
▶	Category 2	2000.00	2022-02-01
	Category 3	3000.00	2022-03-01
	Category 4	4000.00	2022-04-01
	Category 5	5000.00	2022-05-01
	Category 2	2000.00	2022-02-01
	Category 3	3000.00	2022-03-01
	Category 4	4000.00	2022-04-01
	Category 5	5000.00	2022-05-01

Query: CALL GetPFCategories(3000);

Result:

Result Grid |  Filter Rows: | Export: 

	PFCategoryName	Amount	Start_date
	Category 4	4000.00	2022-04-01
	Category 5	5000.00	2022-05-01
	Category 4	4000.00	2022-04-01
	Category 5	5000.00	2022-05-01

4. Write a stored procedure to get number of PF records where the amount of PF is equal to the provided input value. Your procedure should contain an IN parameter named amt to take input value of amount and should contain OUT parameter named total to return the total number of PF records satisfying the condition.

Ans:

Query:

```
DELIMITER //
```

```
CREATE PROCEDURE GetTotalPFForAmount(IN amt INT, OUT total INT)
```

```
BEGIN
```

```
    SELECT COUNT(*) INTO total FROM PF WHERE Amount = amt;
```

```
END//
```

```
DELIMITER
```

;

Result:

Query OK, 0 rows affected (0.01 sec)

5. Call the procedure in Q4. with input of 3000 and print the @total.

Ans:

Query:

```
CALL GetTotalPFForAmount(3000, @total);
```

```
SELECT @total;
```

Result:

Result:

Result Grid

<

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6. Write before insert trigger before inserting a record into the Employee table. Show some action on the event.

Ans:

Query:

```
DELIMITER //
CREATE TRIGGER before_employee_insert
BEFORE INSERT ON Employee
FOR EACH ROW
BEGIN
    -- Perform some action on the event
    DECLARE employeeCount INT;
    -- Check if the number of employees exceeds a certain limit
    SELECT COUNT(*) INTO employeeCount FROM Employee;
    IF employeeCount > 4 THEN
        -- Raise an error if the limit is exceeded
        SIGNAL SQLSTATE '45000'
        SET MESSAGE_TEXT = 'Maximum employee limit reached.';
    END IF;
END //
DELIMITER ;
```

Result:

0 row(s) affected

When I try to insert then following error came that mean trigger is activated

Query:

```
INSERT INTO employee(SSN, Ename, Gender, Bdate, Address, Salary, Ono, Years_of_experience,
Marital_status) VALUES( 7, 'padam', 'M', '1994-04-25', 'ktm', 50000, 5, 6, 'single')
```

Result:

ERROR 1644 (45000): Maximum employee limit reached.

mysql>

7. Write after delete trigger on PF table during delete operation. Print "It is deleted".

Ans:

Query:

```
DELIMITER //
CREATE TRIGGER after_pf_delete
AFTER DELETE ON PF
FOR EACH ROW
BEGIN
    -- Perform some action after the delete operation
    INSERT INTO LogTable (Message) VALUES ('It is deleted');
END //
DELIMITER //
```

Result:

0 row(s) affected

After that to check I tried following query

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Query:

```
DELETE FROM pf where PFID = 9
```

Result:

ERROR 1146 (42S02): Table 'suraj_38_company.LogTable' doesn't exist