**Experiment 9**

**Name:**

**Class: TE COMPUTERS**

**Roll No:**

**Batch:**

**Task 1**

**--1**

create or replace function f1() returns integer

as $$

<<bl>>

declare

fact int: =1; n int: =4;

begin

while n>0

loop

fact=fact\*n;

n=n-1;

end loop;

return fact;

end;

$$ language plpgsql

drop function f1();

select f1() AS "Factorial:";

**--2**

create table emp (

id integer,

name varchar (100),

salary integer

);

insert into emp values(1,'Logan',1200000);

insert into emp values(2,'Jake',450000);

insert into emp values(3,'Tom',80500);

**--3**

create or replace function findAverage () returns decimal as

$avgSalary$

declare

average decimal;

begin

select avg(salary) into average from emp;

return average;

end;

$avgSalary$ language plpgsql;

select findAverage();

**--4**

select \* from emp

CREATE TRIGGER beforeInsert BEFORE INSERT ON emp

FOR EACH ROW EXECUTE PROCEDURE executeTrigger();

CREATE OR REPLACE FUNCTION executeTrigger() RETURNS TRIGGER AS $empTable$

BEGIN

raise notice 'Not Allowed';

return new;

END;

$empTable$ LANGUAGE plpgsql;

insert into emp values(4,'Stark',4500); --NOTICE: Not Allowed

CREATE TRIGGER beforeUpdate BEFORE UPDATE ON emp

FOR EACH ROW EXECUTE PROCEDURE executeTrigger();

update emp set name ='Pew' where id=4; --NOTICE: Not Allowed

CREATE TRIGGER beforeDelete BEFORE DELETE ON emp

FOR EACH ROW EXECUTE PROCEDURE executeTrigger();

delete from emp where id=4; --NOTICE: Not Allowed

**--5**

CREATE TRIGGER afterInsert AFTER INSERT ON emp

FOR EACH ROW EXECUTE PROCEDURE executeTrigger();

CREATE OR REPLACE FUNCTION executeTrigger() RETURNS TRIGGER AS $empTable$

BEGIN

INSERT INTO AUDIT (EMP\_ID, ENTRY\_DATE) VALUES (new.ID, current\_timestamp);

return new;

END;

$empTable$ LANGUAGE plpgsql;

insert into emp values(5,'Malone',4500);

select \* from audit;

CREATE TRIGGER afterUpdate AFTER UPDATE ON emp

FOR EACH ROW EXECUTE PROCEDURE executeTrigger();

update emp set name ='Pew' where id=4;

CREATE TRIGGER afterDelete AFTER DELETE ON emp

FOR EACH ROW EXECUTE PROCEDURE executeTrigger();

delete from emp where id=4; --NOTICE: Not Allowed