PROCEDURES & FUNCTIONS:

1. Write a pl/sql procedure to print the armstrong number.

```
delimiter //
create procedure armstrong(n int)
begin
   declare result int;
   declare copy int;
   declare len int;
   set copy = n;
   set result = 0;
   set len = length(copy);
   while copy>0
   do
        set result := result + power((copy mod 10),3);
     set copy := floor(copy/10);
   end while;
   if result = n then
        select "armstrong";
   else
        select "not armstrong";
   end if;
end//
delimiter ;

call armstrong(371);
```

armstrong
▶ armstrong

```
call armstrong(12);
```

not armstrong
▶ not armstrong

2. Write a pl/sql code to reverse a given number.

```
delimiter //
create procedure reverseint(n int)
begin
   declare result int;
   declare copy int;
```

```
    set copy = n;
    set result = 0;
    while copy>0
    do
            set result := (result*10) + (copy mod 10);
        set copy := floor(copy/10);
    end while;
    select result;
end//
delimiter ;


call reverseint(371);
```

	result
▶	173

3. Write a pl/sql function to reverse a given string.

```
delimiter //
create function reversestring(str varchar(20))
returns varchar(20)
deterministic
begin
    declare result varchar(20);
    declare copy varchar(20);
    declare len int;
    set result := "";
    set copy := str;
    set len = length(str);
    while len>=0
    do
            set result := concat(result,right(copy,1));
        set copy := left(copy, len-1);
        set len := len-1;
    end while;
    return result;
end//
delimiter ;

select reversestring("hello");
```

reversestring("hello")
olleh

4. Write a pl/sql code to raise the salary of employee by 10% where their company name = 'Acc'.

create database pf;

use pf;

create table emp_company(ename varchar(25), cname varchar(25), salary int(8), jdate date);

insert into emp_company values('Anil','Acc',1500,'1989-05-01'),

('Sunil','CMC',1700,'1988-01-01'),

('Vijay','TATA',5000,'1988-01-03'),

('Amol','Acc',1000,'1995-03-17');

select * from emp_company where cname="Acc";

ename	cname	salary	jdate
Anil	Acc	1500	1989-05-01
Amol	Acc	1000	1995-03-17

#Before Updation

delimiter //

create procedure salaryinc()

begin

    update emp_company set salary = salary+salary*0.1 where cname = "Acc";

end//

delimiter ;

set sql_safe_updates = 0;

call salaryinc();

select * from emp_company where cname="Acc";

ename	cname	salary	jdate
Anil	Acc	1650	1989-05-01
Amol	Acc	1100	1995-03-17

#After Updation

5. Create a package to perform insert and delete operation on to the employee table.

Since packages only exist in Oracle PLSQL and not in MYSQL we've created two procedures for the same.

create database d1;

use d1;

create table emp_company(ename varchar(25), cname varchar(25), salary int, jdate date);

```
delimiter //
create procedure ins(ename varchar(25), cname varchar(25), salary int, jdate date)
begin
insert into emp_company values(ename, cname, salary, jdate);
end //

create procedure del(emp varchar(20))
begin
delete from emp_company where ename=emp;
end //
delimiter ;

call ins('Anil','Acc',1500,'1989-05-01');
call ins('Shankar','Tata',2000,'1990-07-10');
call ins('Surya','CMC',5000,'2000-08-12');
```

ename	cname	salary	jdate
Anil	Acc	1500	1989-05-01
Shankar	Tata	2000	1990-07-10
Surya	CMC	5000	2000-08-12

```
call del('Shankar');
```

ename	cname	salary	jdate
Anil	Acc	1500	1989-05-01
Surya	CMC	5000	2000-08-12

6. **Write a pl/sql procedure to check whether the eno=1001 exist. if not, raise an exception.**

```
use d1;
create table emp_company(eno int, ename varchar(25), cname varchar(25), salary int, jdate date);
insert into emp_company values(1000,'Anil','Acc',1500,'1989-05-01'),
                              (1003,'Sunil','CMC',1700,'1988-01-01'),
                              (1001,'Vijay','TATA',5000,'1988-01-03'),
                              (1005,'Amol','Acc',1000,'1995-03-17');

select * from emp_company;
```

eno	ename	cname	salary	jdate
1000	Anil	Acc	1500	1989-05-01
1003	Sunil	CMC	1700	1988-01-01
1001	Vijay	TATA	5000	1988-01-03
1005	Amol	Acc	1000	1995-03-17

```
delimiter //
create procedure checkemp(enum int)
begin
declare k int;
set k = (select count(eno) from emp_company where eno=enum);
if k>0 then
select "Exists";
else
select "Does Not Exist";
end if;
end //
delimiter ;
```

call checkemp(1001);

	Exists
▶	Exists

call checkemp(1002);

	Does Not Exist
▶	Does Not Exist