

Course:
Database Management
Systems (DBMS)

Assesment 4: LOOPS

Done by: Prithak Gajurel
Registration Number:
20BCE2921

Write down (handwritten) the respective queries for each Qs. Answer should contain the screenshot of the execution

1. In a single output window, print odd numbers upto 20 using LOOP [2]
2. Using DO-WHILE LOOP insert the following data into table "tourism" and show the table content. [2]

ID	Place
2	Place3
4	Place5
6	Place7
8	Place9
10	Place11
12	Place13

3. Using paging and DO-WHILE display the "tourism" contents in three pages (o/ps). [2]
4. Using procedure display the tuples of "tourism" where ID is either 4 or 8 or 12. [2]
5. Create a new table "place_name" having only one field "name". Using nested stored procedure and DO-WHILE/LOOP copy the place name from the "tourism" table having ID = 2, 6, 10 and insert it to "place_name" table. [2]

Initial creation of table:

Code:

```
• create table tourism(  
    Id int primary key,  
    Place varchar(50) );  
• desc tourism;
```

Output:

	Field	Type	Null	Key	Default	Extra
►	Id	int	NO	PRI	NULL	
	Place	varchar(50)	YES		NULL	

1. In a single output window, print odd numbers upto 20 using LOOP

[2]

CODE:

```
#1
DELIMITER $$
#DROP PROCEDURE IF EXISTS print_odd;
CREATE PROCEDURE print_odd()
BEGIN
    DECLARE x INT;
    DECLARE ODD VARCHAR(100);
    SET x = 1;
    SET ODD='';
    loop_odd: LOOP
        SET ODD = CONCAT(ODD,x,',');
        set x = x + 2;
        IF x>20 THEN
            LEAVE loop_odd;
        END IF;
    END LOOP;
    select ODD;
END$$
call print_odd();
```

HANDWRITTEN:

```
#1
DELIMITER $$
#DROP PROCEDURE IF EXISTS print_odd;
CREATE PROCEDURE print_odd()
BEGIN
DECLARE x INT;
DECLARE ODD VARCHAR(100);
SET x = 1;
SET ODD="";
loop_odd: LOOP
SET ODD = CONCAT(ODD,x,',');
set x = x + 2;
IF x>20 THEN
LEAVE loop_odd;
END IF;
END LOOP;
select ODD;
END$$
call print_odd();
```

OUTPUT:

Result Grid		Filter Rows:
	ODD	
▶	1,3,5,7,9,11,13,15,17,19,	

Result 22 x

2. Using DO-WHILE LOOP insert the following data into table "tourism" and show the table content. [2]

ID	Place
2	Place3
4	Place5
6	Place7
8	Place9
10	Place11
12	Place13

CODE:

```
#2
Delimiter $$
Drop procedure if exists ins_tourism;
create procedure ins_tourism()
begin
declare a int;
declare xyz varchar(50);
set a = 2;
set xyz = '';
while a <=12 do
    set xyz = concat('Place',a+1);
    insert into tourism
    values(a,xyz);
    set a = a + 2;

end while;
end$$
call ins_tourism();

select * from tourism;
truncate table tourism;
```

HANDWRITTEN CODE:

#2

Delimiter \$\$

Drop procedure if exists ins_tourism;

create procedure ins_tourism()

begin

declare a int;

declare xyz varchar(50);

set a = 2;

set xyz = '';

while a <= 12 do

set xyz = concat('Place',a+1);

insert into tourism

values(a,xyz);

set a = a + 2;

end while;

end\$\$

call ins_tourism();

select * from tourism;

truncate table tourism;

OUTPUT:

Result Grid		
	Id	Place
▶	2	Place3
	4	Place5
	6	Place7
	8	Place9
	10	Place11
	12	Place13
*	NULL	NULL

tourism 23 x

3. Using paging and DO-WHILE display the "tourism" contents in three pages (o/ps).

[2]

CODE:

```
#3
Delimiter $$
DROP PROCEDURE IF EXISTS page_tourism;
CREATE PROCEDURE page_tourism()
begin
DECLARE count INT;
SET count = 0;
WHILE count < (Select count(Id) from tourism) do
    SELECT * FROM tourism limit 2 offset count;
    SET count = count + 2;
END while;
end$$
call page_tourism();
```

HANDWRITTEN CODE:

```
#3
Delimiter $$
DROP PROCEDURE IF EXISTS page_tourism;
CREATE PROCEDURE page_tourism()
begin
DECLARE count INT;
SET count = 0;
WHILE count < (Select count(Id) from tourism) do
SELECT * FROM tourism limit 2 offset count;
SET count = count + 2;
END while;
end$$
call page_tourism();
```

OUTPUTS:

	Id	Place
▶	2	Place3
	4	Place5

	Id	Place
▶	6	Place7
	8	Place9

Result 25 Result 26 × Result 27

	Id	Place
▶	10	Place11
	12	Place13

Result 25 Result 26 Result 27 ×

4. Using procedure display the tuples of "tourism" where ID is either 4 or 8 or 12.

CODE:

```
#4
Delimiter $$
DROP PROCEDURE IF EXISTS loopdemo;
CREATE PROCEDURE loopdemo()
  3 BEGIN
  declare a int;
  set a = 4;
  3 while a<= (Select max(Id) from tourism) do
      select Id,Place from tourism
      where Id = a;
      set a = a + 4;
  ~ end while;
  ~ end$$
  call loopdemo();
```

```

Delimiter $$
DROP PROCEDURE IF EXISTS disp_tup;
CREATE PROCEDURE disp_tup()
BEGIN
    call loopdemo();
end$$
call disp_tup();

```

HANDWRITTEN CODE:

```

#4
Delimiter $$
DROP PROCEDURE IF EXISTS loopdemo;
CREATE PROCEDURE loopdemo()
BEGIN
    declare a int;
    set a = 4;
    while a <= (Select max(Id) from tourism) do
    select Id,Place from tourism
    where Id = a;
    set a = a + 4;
    end while;
end$$
call loopdemo();

Delimiter $$
DROP PROCEDURE IF EXISTS disp_tup;
CREATE PROCEDURE disp_tup()
BEGIN
    call loopdemo();
end$$
call disp_tup();

```

OUTPUT:

	Id	Place
▶	4	Place5

Result 40 × Result 41 Result 42

	Id	Place
▶	8	Place9

Result 40 Result 41 × Result 42

	Id	Place
▶	12	Place13

Result 40 Result 41 Result 42 ×

5. Create a new table "place_name" having only one field "name". Using nested stored procedure and DO-WHILE/LOOP copy the place name from the "tourism" table having ID = 2, 6, 10 and insert it to "place_name" table. [2]

CODE:

#5

```
create table place_name (Name varchar (100));
```

```
Delimiter $$
```

```
DROP PROCEDURE IF EXISTS np;
```

```
CREATE PROCEDURE np()
```

```
BEGIN
```

```
insert into place_name values(@contname);
```

```
end$$
```

```
Delimiter $$
```

```
DROP PROCEDURE IF EXISTS While_Loop;
```

```
CREATE PROCEDURE While_Loop()
```

```
BEGIN
```

```
DECLARE Counter, MaxId INT;
```

```
DECLARE ContName VARCHAR(100);
```

```
set counter = (SElect min(Id) from tourism);
```

```
set maxID = (SElect max(Id) from tourism);
```

```
set @contname='';
```

```
while (Counter-1 <= MaxId) do
```

```
SET @ContName = (select Place FROM tourism WHERE Id = counter );
```

```
call np();
```

```
SET Counter = Counter + 4;
```

```
END while;
```

```
end$$
```

```
call While_Loop();
```

```
select * from place_name;
```

```
drop table place_name;
```

Handwritten code:


```
#5
create table place_name (Name varchar (100));
Delimiter $$
DROP PROCEDURE IF EXISTS np;
CREATE PROCEDURE np()
BEGIN
insert into place_name values(@contname);
end$$

Delimiter $$
DROP PROCEDURE IF EXISTS While_Loop;
CREATE PROCEDURE While_Loop()
BEGIN
DECLARE Counter, MaxId INT;
DECLARE ContName VARCHAR(100);
set counter = (SElect min(Id) from tourism);
set maxID = (SElect max(Id) from tourism);
set @contname="";

while (Counter-1 <= MaxId) do
SET @ContName = (select Place FROM tourism WHERE Id = counter );
call np();
SET Counter = Counter + 4;
END while;
end$$
call
```

```
While_Loop();
select * from place_name;
drop table place_name;
```

OUTPUT:

Result Grid 	
	Name
▶	Place3
	Place7
	Place11
Result 43 × 