Assignment No. 10

1) Write a procedure to find the factorial of the number.

Hint: use only repeat loop

mysql> delimiter $$

mysql> create procedure factorial(in num int)

-> begin

-> declare fact int default 1;

-> repeat

-> set fact=fact\*num;

-> set num=num-1;

-> until num<1

-> end repeat;

-> select fact as 'factorial is: ';

-> end $$

Query OK, 0 rows affected (0.00 sec)

mysql> delimiter ;

mysql> call factorial(5);

+----------------+

| factorial is: |

+----------------+

| 120 |

+----------------+

1 row in set (0.00 sec)

Query OK, 0 rows affected (0.00 sec)

2) Create a procedure to find the sum of digits of the number passed as

parameter to it.

Hint: use while loop

mysql> delimiter &&

mysql> create procedure sum1(in num int)

-> begin

-> declare sum int default 0;

-> while num<>0 do // num <> 0 mtlb num is not equal to 0.

-> set sum=sum+num%10;

-> set num=num/10;

-> end while;

-> select sum as 'sum of digits';

-> end &&

Query OK, 0 rows affected (0.00 sec)

mysql> delimiter ;

mysql> call sum1(1234);

+---------------+

| sum of digits |

+---------------+

| 10 |

+---------------+

1 row in set (0.00 sec)

Query OK, 0 rows affected (0.00 sec)

3) Write a procedure to print the Fibonacci sequence using any kind of the loop.

e.g. 0, 1, 1, 2, 3, 5, 8....

mysql> delimiter ##

mysql> create procedure Series(in num int)

-> begin

-> declare i int default 0;

-> declare num1 int default 0;

-> declare num2 int default 1;

-> declare fib int default 0;

-> declare result varchar(100) default "";

-> while i<num do

-> if(i<=1) then

-> set fib =i;

-> else

-> set fib=num1+num2;

-> set num1=num2;

-> set num2=fib;

-> end if;

-> set i=i+1;

-> set result=concat(result,fib," ");

-> end while;

-> select result as "fibonacci Series";

-> end ##

Query OK, 0 rows affected (0.01 sec)

mysql> delimiter ;

mysql> call Series(5);

+------------------+

| fibonacci Series |

+------------------+

| 0 1 1 2 3 |

+------------------+

1 row in set (0.00 sec)

Query OK, 0 rows affected (0.00 sec)

mysql> call Series(10);

+-------------------------+

| fibonacci Series |

+-------------------------+

| 0 1 1 2 3 5 8 13 21 34 |

+-------------------------+

1 row in set (0.00 sec)

Query OK, 0 rows affected (0.00 sec)

4) Write a procedure to print all the odd and even numbers separately using

same procedure.

mysql> delimiter &&

mysql> create procedure Oddeven(in num int)

-> begin

-> declare i int default 1;

-> declare even varchar(100) default "";

-> declare odd varchar(100) default "";

-> while i<=num do

-> if(i%2=0) then

-> set even=concat(even,i," ");

-> else

-> set odd=concat(odd,i," ");

-> end if;

-> set i=i+1;

-> end while;

-> select even as "Even numbers: ";

-> select odd as "Odd numbers";

-> end &&

Query OK, 0 rows affected (0.00 sec)

mysql> delimiter ;

mysql> call Oddeven(10);

+----------------+

| Even numbers: |

+----------------+

| 2 4 6 8 10 |

+----------------+

1 row in set (0.01 sec)

+-------------+

| Odd numbers |

+-------------+

| 1 3 5 7 9 |

+-------------+

1 row in set (0.01 sec)

Query OK, 0 rows affected (0.01 sec)