18-10-24

DAY 10

- ; is known as Delimiter which indecates end of Command
- We can use delimeter what ever we want but it should not be part of command

```
mysql> select * from emp//
```

- changing delimiter is known as Personalisation

MySQL PL

- MySQL Programming Language
- Programming Language from MySQL
- Used for Database programming
- e.g. HRA_CALC,TAX_CALC

Every RDBMS has its own programming language :

- Oracal (PL/SQL) -> Procedural Language SQL(Most popular for commercial RDBMS)(63%)
- MS SQL Server (T-SQL) -> Transact SQL
- MySQL (MySQL -PL) -> MySQL Programming language(Most Popular for open-source RDBMS)(42%)
- Used for Server-side data Processing

```
mysql> call hra_calc();
```

```
Begin
    Insert into dept values(1, 'a', 'B');
End;
```

- Execution is top to bottom
- Mysql -PL command block above image
- we can have block within block

- parent - child/ outer-inner/main-sub
- No upper Limit
- its known as block level language (Feature of OOPS)

Benefits of Block Level language :

1. Modularity
2. Control scope of variables(form of data hiding)(Encapsulation)
3. Efficient error management with the help of exceptions

- Screen input and screen output is not allowed (Sacnf,printf,etc. not available)
- used ONLY for Processing
- we can use select statement inside block but its not recommanded
- SQL commands taht are allowed inside the block :
    - DDl,DML,DQL,DTL/TCL
- DCL not commands are allowed

To store the output of MySQL-PL program:- creating table of output in advance

```
create table rmpp
(
    fir int,
    sec char(15)
);
```

STORED OBJECTS

- Objects that are stored in the database
- Create .... Table, Indexes,Views
- anything that you do with CREATE command is a stored object

STORED PROCEDURES

- Routine (set of commands) that called explicitly
- global PROCEDURES
- stored in the database
- can be called through MySQL command line Client,MySQL Workbench,java,MS .net,etc. ; can be called through any front-end s/w
- stored in databse in the compaied formate
- so execution is very fast
- Execution takeds place in Server ram
- Procedure can have LOCAL variables

- within the procedure you can have any proccesing ,all Mysql-pl statement allowed, e.g. if statement,loops, cursors,etc.
- one procedure can call another procedure
- procedure can call itself (Recursion)
- to make it flexible , you can pass parameters to a procedure

```
mysql>call hra_cal('KING',5000,0.4)
```

- Overloading of stored procedures is not supported ;
- you cannot create 2 or more procedure with the same name even if the NUMBER of parameters passed is different or the DATATYPE of parameters passed is different ; because its a stored object

LOOP,LEAVE,ITERARE statement

- Leave statement allowes you to exit the loop
- Iterate statement allowes you to skip the entire code uner it and start a new iteration (similar to continue)
- Loop statement executes a block of code repeatedly with an additional flexibility of using a loop label

```
delimiter //
create procedure abc()
begin
    declare x int default 1;
    pqr_loop: loop
            if x>10 them
                leave pqr_loop;
            end if ;
            set x=x+1;
            if mod(x,2) != 0 then
                  iterate pqr_loop;
            else
                  insert into tempp values(x,'inside loop');
            end if;
        end loop;
  end ;//
delimiter ;
```

LEAVE

- Exits the all loops (in nested)

Globle

```
mysql> set @x=10;
```

- it remain in server ram till you exit\
- usedd in select ,insert ,update , delete & front-end s/w.