

20-9-3 JDBC ~ 20-9-8까지

```

drop table member;
create table member (
  code varchar2(10) not null,
  name varchar2(30) not null,
  id varchar2(30),
  pwd varchar2(15),
  age number(5)
)

--DB저장(삽입)
insert into member(code,name,id,pwd,age)
values('1001','강지아','jeea', '1111', 20);

insert into member(code,name,id,pwd,age)
values('1002','이장미','rose', '2222', 20);

insert into member(code,name,id,pwd,age)
values('1003','김백합','lily', '333', 18);

insert into member
values('1004','홍길동','gildong', '444', 18);

--조회(검색) select 필드명들 from 테이블명 where 조건;
select * from member;
select code, name from member;
select code, name, age from member where code='1001';
select age from member;
select distinct age from member;
select * from member where name='홍길동';
select * from member where name like '홍%';
select * from member where name like '%홍%';
select * from member where name like '홍--' and code='1004';
select * from member order by name asc;
select * from member order by name desc;
select name, '당신의나이는', age from member;
select name, age+10 from member;
select count(*) from member; --결과는 숫자로 나온다
--count(), sum(), avg(), max(), min() 집단함수
select * from member where age in(20,30);
select * from member where age=20 or age=30;
select * from member where age not in(20,30);
select * from member where age between 20 and 30;
select * from member where pwd is null;
select * from member where pwd is not null;
select avg(age) from member;
select age from member group by age;
select age, count(age) from member group by age;

--수정(업데이트)update 테이블명 set 수정내용 where 조건;
update member set pwd='1234' where name='이장미';
select * from member;
update member set code='1005' where name like '홍%';
update member set age=age+1 where name='홍길동' and pwd='444';
update member set age=age+1 where name='홍길동' and age > 18;

--DB에서 레코드 삭제(제거) delete from 테이블명 where 조건;
delete from member where name='이장미';
select * from member;
delete from member where name like '%홍%';
select * from member;

delete from member;

```

```
--DML(데이터조작언어)-insert,select,update,delete
--DDL(데이터정의언어)-create, alter, drop
```

```
--구조변경 alter table 테이블명 add( )
--구조변경 alter table 테이블명 modify
--구조변경 alter table 테이블명 drop
```

```
alter table member add(email varchar2(20));
select * from member;
alter table member modify(email varchar2(40));
```

```
alter table member drop column email;
```

```
alter table member modify(code varchar2(10) primary key);
select * from member;
```

```
public class JDBCtest1 {
    public static void main(String[] args) throws Exception {
        String driver="oracle.jdbc.OracleDriver";
        String url="jdbc:oracle:thin:@127.0.0.1:1521:xe";
        String user="system";
        String password="123456";
        String sql="select * from member";
        Class.forName(driver); //1)DB드라이버파일을 로딩
        Connection con=DriverManager.getConnection(url,user,password);
//2)오라클연결
        Statement stmt=con.createStatement(); //3) 빈 문장통
        ResultSet rs=stmt.executeQuery(sql); //4)빈문장통에 sql넣어서
        실행
        while(rs.next()) {
            System.out.print(rs.getString(1)+"\t");
            System.out.print(rs.getString(2)+"\t");
            System.out.print(rs.getString(3)+"\t");
            System.out.print(rs.getString(4)+"\t");
            System.out.println(rs.getInt(5));
        }
    }
}
```

```
public class JDBCtest2 {
    public static void main(String[] args) throws Exception{
        String driver="oracle.jdbc.OracleDriver";
        String url="jdbc:oracle:thin:@127.0.0.1:1521:xe";
        String user="system";
        String password="123456";
        String sql="insert into member(code,name,id, pwd) "
            + "values('1005','최고야','choi', choi)";

        Class.forName(driver);
        Connection con=DriverManager.getConnection(url,
user,password);
        Statement stmt=con.createStatement();
        int re=stmt.executeUpdate(sql); //insert,update,delete
        if(re==1)System.out.println("성공");
    }
}
```

```
public class JDBCtest3 {
    public static void main(String[] args) throws Exception {
```

```

String driver="oracle.jdbc.OracleDriver"; // class단어빼기
String url="jdbc:oracle:thin:@127.0.0.1:1521:xe";
String user="system";
String password="123456";
Connection con=null;
Statement stmt=null;
String sql="update member set code='1009' where name='홍길동'";
try {
    Class.forName(driver);
    con=DriverManager.getConnection(url,user,password);
    stmt=con.createStatement();
    int re=stmt.executeUpdate(sql);
    if(re==1) System.out.println("성공");
    else System.out.println("실패");
}
catch(Exception e) {
    e.printStackTrace();
}
finally {
    con.close(); //try-catch 또 묶어주세요
}
}

```

```

public class JDBCtest4 {
    public static void main(String[] args) throws Exception {
        String driver="oracle.jdbc.OracleDriver"; // class단어빼기
        String url="jdbc:oracle:thin:@127.0.0.1:1521:xe";
        String user="system";
        String password="123456";
        Connection con=null;
        Statement stmt=null;
        String sql="delete from member where code='1005'";
        try {
            Class.forName(driver);
            con=DriverManager.getConnection(url,user,password);
            stmt=con.createStatement();
            int re=stmt.executeUpdate(sql);
            if(re==1) System.out.println("성공");
            else System.out.println("실패");
        }
        catch(Exception e) {
            e.printStackTrace();
        }
        finally {
            con.close(); //try-catch 또 묶어주세요
        }
    }
}

```

20-9-7 JDBC2

```

public class JDBC_selectall {

    public static void main(String[] args) {
        String driver="oracle.jdbc.OracleDriver";
        String url="jdbc:oracle:thin:@127.0.0.1:1521:xe";
        String user="system";
        String password="123456";
        String sql="select * from member";
        try {
            Class.forName(driver);

```

```

        Connection
con=DriverManager.getConnection(url,user,password);
        PreparedStatement pstmt=con.prepareStatement(sql);
        ResultSet rs=pstmt.executeQuery();
        while(rs.next()) {
            System.out.print(rs.getString(1)+" ");
            System.out.print(rs.getString(2)+" ");
            System.out.print(rs.getString(3)+" ");
            System.out.print(rs.getString(4)+" ");
            System.out.println(rs.getInt(5));
        }

    } catch (Exception e) {
        System.out.println(e);
    }

}
}

```

```

public class JDBC_select {

    public static void main(String[] args) {
        String driver="oracle.jdbc.OracleDriver";
        String url="jdbc:oracle:thin:@127.0.0.1:1521:xe";
        String user="system";
        String password="123456";
        String sql="select * from member where id=? and pwd=?";
        Connection con=null;
        PreparedStatement pstmt=null;

        Scanner sc=new Scanner(System.in);
        System.out.println("아이디 입력");
        String id=sc.next();

        System.out.println("비번 입력");
        String pwd=sc.next();
        try {
            Class.forName(driver);
            con=DriverManager.getConnection(url,user,password);
            pstmt=con.prepareStatement(sql);
            pstmt.setString(1, id); //
            pstmt.setString(2, pwd); //
            ResultSet rs=pstmt.executeQuery();
            while(rs.next()) {
                System.out.print(rs.getString(1)+" ");
                System.out.print(rs.getString(2)+" ");
                System.out.print(rs.getString(3)+" ");
                System.out.print(rs.getString(4)+" ");
                System.out.println(rs.getInt(5));
            }

        } catch (Exception e) {
            System.out.println(e);
        }

    }

}

```

```

public class JDBC_insert {

```

```

public static void main(String[] args) {
    String driver="oracle.jdbc.OracleDriver";
    String url="jdbc:oracle:thin:@127.0.0.1:1521:xe";
    String user="system";
    String password="123456";
    String sql="insert into member(code,name,id,pwd,age)
values(?,?,?,?,?)";
    Connection con=null;
    PreparedStatement pstmt=null;
    Scanner sc=new Scanner(System.in);
    try {
        Class.forName(driver);
        con=DriverManager.getConnection(url,user,password);
        pstmt=con.prepareStatement(sql);

        System.out.println("코드입력(100x)");
        pstmt.setString(1, sc.next());

        System.out.println("이름입력");
        pstmt.setString(2, sc.next());

        System.out.println("아이디입력");
        pstmt.setString(3, sc.next());

        System.out.println("비번입력");
        pstmt.setString(4, sc.next());

        System.out.println("나이입력");
        pstmt.setInt(5, sc.nextInt());

        int res=pstmt.executeUpdate();
        if(res==1) System.out.println("성공");
        else System.out.println("실패");

    }catch (Exception e) {
        System.out.println("동일한 코드가 존재합니다.");
        System.out.println("실패");
    }
    finally {
        try {
            pstmt.close();
            con.close();
        } catch (Exception e) {
            System.out.println(e);
        }
    }
}
}

```

```

public class JDBC_delete {

    public static void main(String[] args) {
        String driver="oracle.jdbc.OracleDriver";
        String url="jdbc:oracle:thin:@127.0.0.1:1521:xe";
        String user="system";
        String password="123456";
        String sql="delete from member where id=? and pwd=?";

        Scanner sc=new Scanner(System.in);
        System.out.println("삭제할 아이디를 입력하세요");
        String id=sc.next();
    }
}

```

```

        System.out.println("비번을 입력하세요");
        String pwd=sc.next();

        try {
            Class.forName(driver);
            Connection
con=DriverManager.getConnection(url,user,password);
            PreparedStatement pstmt=con.prepareStatement(sql);
            pstmt.setString(1, id);
            pstmt.setString(2, pwd);
            int res=pstmt.executeUpdate();
            if(res==1) System.out.println("성공");
            else System.out.println("실패");
        }
        catch(Exception e) {
            System.out.println(e);
        }
    }
}

```

```

public class JDBC_update {

    public static void main(String[] args) {
        String driver="oracle.jdbc.OracleDriver";
        String url="jdbc:oracle:thin:@127.0.0.1:1521:xe";
        String user="system";
        String password="123456";
        String sql="update member set pwd=? where id=?";
        //콘솔로 id와 pwd를 입력받아서 update되도록 하시오
        Scanner sc=new Scanner(System.in);
        System.out.println("아이디를 입력하세요");
        String id=sc.next();
        System.out.println("변경할 비번을 입력하세요");
        String pwd=sc.next();

        try {
            Class.forName(driver);
            Connection
con=DriverManager.getConnection(url,user,password);
            PreparedStatement pstmt=con.prepareStatement(sql);
            pstmt.setString(1, pwd); //1번물음표는 pwd에 대입
            pstmt.setString(2, id); //2번물음표는 id에 대입
            int res=pstmt.executeUpdate();
            if(res==1) System.out.println("성공");
            else System.out.println("실패");

        }catch(Exception e) {
            System.out.println(e);
        }
    }
}

```

```

public class JDBC_select2 {

    public static void main(String[] args) {
        String driver="oracle.jdbc.OracleDriver";
        String url="jdbc:oracle:thin:@127.0.0.1:1521:xe";
        String user="system";
        String password="123456";
        //select * from member where name like '%홍%';
    }
}

```

```

String sql="select * from member where name like '%";

System.out.println("검색할 이름의 단어를 입력하세요");
Scanner sc=new Scanner(System.in);
String temp=sc.next();    //홍

sql=sql+temp+"%";

try {
    Class.forName(driver);
    Connection con=DriverManager.getConnection(url, user,
password);

    PreparedStatement pstmt=con.prepareStatement(sql);
    ResultSet rs=pstmt.executeQuery();
    while(rs.next()) {
        System.out.print(rs.getString(1)+" ");
        System.out.print(rs.getString(2)+" ");
        System.out.print(rs.getString(3)+" ");
        System.out.print(rs.getString(4)+" ");
        System.out.println(rs.getInt(5));
    }

} catch (Exception e) {
    // TODO: handle exception
}

}
}

```

20-9-8 JDBC3

```

public class exJDBC_select {

    public static void main(String args[]) {
        String driver="oracle.jdbc.OracleDriver";
        String url="jdbc:oracle:thin:@127.0.0.1:1521:xe";
        String user="system";
        String password="123456";
        String sql="select * from member";
        Connection con=null;
        Statement stmt=null;    //빈통
        ResultSet rs=null;    //결과통
        try {
            Class.forName(driver);
            con=DriverManager.getConnection(url,user,password);
            //stmt=con.createStatement();    //빈통만들기

            stmt=con.createStatement(ResultSet.TYPE_SCROLL_SENSITIVE,
            ResultSet.CONCUR_UPDATABLE);    //빈통만들기
            rs=stmt.executeQuery(sql);    //결과통 rs에 결과물이 5개
            //rs.last();    //last() 마지막으로 이동
            rs.absolute(2);    //absolute(2) 절대위치2로 이동
            while(rs.previous()) {    //previous() 이전으로 이동
                System.out.print(rs.getString(1)+" ");
                System.out.print(rs.getString(2)+" ");
                System.out.print(rs.getString(3)+" ");
                System.out.print(rs.getString(4)+" ");
                System.out.print(rs.getInt(5)+"\n");
            }

        } catch (Exception e) {
            System.out.println(e);
        }
    }
}

```

```

    }
}

```

```

public class exJDBC_select2 {

    public static void main(String args[]) {
        String driver="oracle.jdbc.OracleDriver";
        String url="jdbc:oracle:thin:@127.0.0.1:1521:xe";
        String user="system";
        String password="123456";
        String sql="select * from member";
        Connection con=null;
        PreparedStatement pstmt=null;    //준비된통
        ResultSet rs=null;    //결과통
        try {
            Class.forName(driver);
            con=DriverManager.getConnection(url,user,password);
            pstmt=con.prepareStatement(sql,
ResultSet. TYPE_SCROLL_SENSITIVE,
                ResultSet. CONCUR_UPDATABLE);
            rs=pstmt.executeQuery();
            rs.last();    //마지막레코드의 값을 가져옴
            System.out.print(rs.getString(1)+" ");
            System.out.print(rs.getString(2)+" ");
            System.out.print(rs.getString(3)+" ");
            System.out.print(rs.getString(4)+" ");
            System.out.print(rs.getInt(5)+"\n");
            rs.first();    //첫번째레코드의 값을 가져옴
            System.out.print(rs.getString(1)+" ");
            System.out.print(rs.getString(2)+" ");
            System.out.print(rs.getString(3)+" ");
            System.out.print(rs.getString(4)+" ");
            System.out.print(rs.getInt(5)+"\n");
            rs.absolute(3);    //3번째 레코드의 값을 가져옴
            System.out.print(rs.getString(1)+" ");
            System.out.print(rs.getString(2)+" ");
            System.out.print(rs.getString(3)+" ");
            System.out.print(rs.getString(4)+" ");
            System.out.print(rs.getInt(5)+"\n");
            rs.previous();    //이전 레코드의 값을 가져옴
            System.out.print(rs.getString(1)+" ");
            System.out.print(rs.getString(2)+" ");
            System.out.print(rs.getString(3)+" ");
            System.out.print(rs.getString(4)+" ");
            System.out.print(rs.getInt(5)+"\n");

            rs.last();    //마지막 레코드의 값으로 이동
            int rows=rs.getRow();    //레코드 갯수를 구함
            System.out.println(rows);

        }catch(Exception e) {
            System.out.println(e);
        }
    }
}

```

```

public class exJDBC_selectCount {

    public static void main(String[] args) throws Exception {
        String driver="oracle.jdbc.OracleDriver";

```



```

String url="jdbc:oracle:thin:@127.0.0.1:1521:xe";
String user="system";
String password="123456";
String sql="select count(*) from member"; //갯수
Connection con=null;
Statement stmt=null; //빈통
ResultSet rs=null; //결과통

Class.forName(driver);
con=DriverManager.getConnection(url, user, password);

stmt=con.createStatement();
rs=stmt.executeQuery(sql);
rs.next();
System.out.println(rs.getInt(1));
    }
}

```

```

public class exJDBC_selectCount2 {

    public static void main(String args[]) {
        String driver="oracle.jdbc.OracleDriver";
        String url="jdbc:oracle:thin:@127.0.0.1:1521:xe";
        String user="system";
        String password="123456";
        String sql="select * from member";
        Connection con=null;
        PreparedStatement pstmt=null; //준비된통
        ResultSet rs=null; //결과통
        try {
            Class.forName(driver);
            con=DriverManager.getConnection(url,user,password);
            pstmt=con.prepareStatement(sql,
ResultSet.TYPE_SCROLL_SENSITIVE,
ResultSet.CONCUR_UPDATABLE);
            rs=pstmt.executeQuery();

            rs.last(); //마지막 레코드의 값으로 이동
            int rows=rs.getRow(); //레코드 갯수를 구함
            System.out.println(rows);

        }catch(Exception e) {
            System.out.println(e);
        }
    }
}

```