20200513 DB
지문인식출석

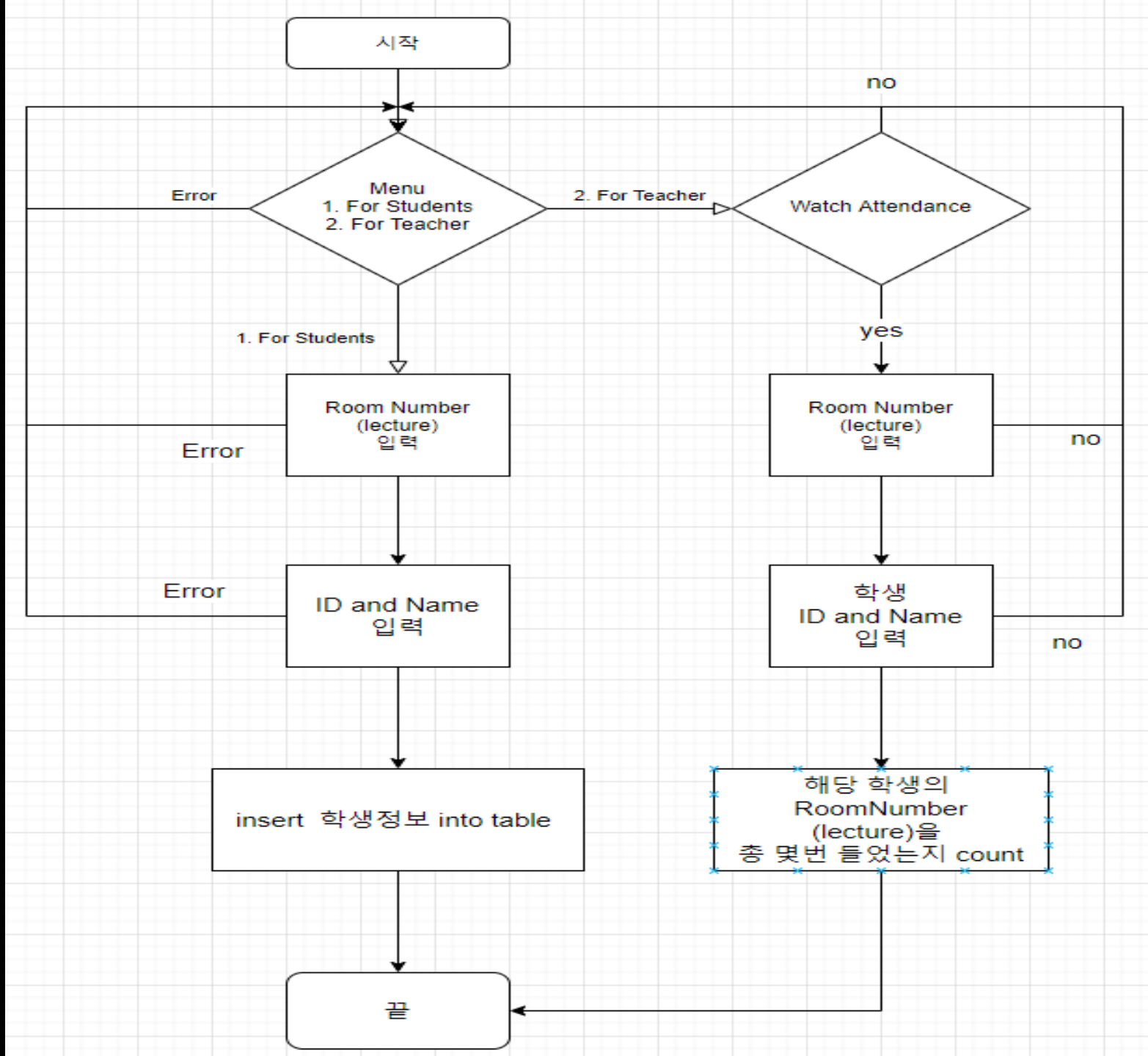
B 신석환

chulsuk.java | informChulsuk.java

```java
package Databases;

import java.sql.Connection;

public class informChulsuk {
    inputSQL mysql = new inputSQL();
    static Scanner sc = new Scanner(System.in);

    public static void attendance(String a) {
        if (a.equals("1")) {
            System.out.println("1. Class room 1 (Math)");
            System.out.println("2. Class room 2 (Java)");
            System.out.println("3. Class room 3 (Database)");
            System.out.println("0. Back");
            viewForTeacher.viewAttendance(sc.next());
            System.out.println();
        } else if (!(a.equals("1")) && !(a.equals("0"))) {
            System.out.println("Error");
        }
    }

    public static void goodLuckForStudent() {
        System.out.println("Class room 1");
        System.out.println("Class room 2");
        System.out.println("Class room 3");
        System.out.println("Back 4");
        String A = sc.next();

        if (A.equals("1")) {
            System.out.println("Enter Personal Number, Name and Scan");
            int b = sc.nextInt();
            String c = sc.next();
            int d = 1;
            int e = 0;
            int f = 0;
            studentEnter(b, c, d, e, f);
            System.out.println("Enter room 1 Good Luck");

        } else if (A.equals("2")) {
            System.out.println("Enter Personal Number, Name and Scan");

            int b = sc.nextInt();
            String c = sc.next();
            int d = 0;
            int e = 1;
            int f = 0;
            studentEnter(b, c, d, e, f);
```

```java
    public static void studentEnter(int ID, String name, int room_1, int room_2, int room_3) {

        int b = ID;
        String c = name;
        int d = room_1;
        int e = room_2;
        int f = room_3;
        String query = "insert into students(id, name, room_1, room_2, room_3) values('" + b + "', '" + c + "', '" + d
                + "', '" + e + "', '" + f + "');";

        Statement statement = null;
        ResultSet resultSet = null;
        Connection connection = null;
        String id = "root";
        String password = "SEOK09HWAN19!";

        try {
            connection = DriverManager.getConnection(
                    "jdbc:mysql://localhost:3306/schoolmanagement?useUnicode=true&characterEncoding=utf8&serverTimezone=
                    id, password);
            statement = connection.createStatement();

            if (statement.execute(query)) {
                resultSet = statement.getResultSet();
            }

            while (resultSet != null && resultSet.next()) {
                String str = resultSet.getString(1);

                System.out.println(str);
            }
        } catch (NullPointerException e1) {
            e1.printStackTrace();
        } catch (Exception e1) {
            e1.printStackTrace();
        }
    }
```

#순서도


시작
Menu
1. For Students
2. For Teacher
Error
2. For Teacher
Watch Attendance
no
1. For Students
yes
Room Number
(lecture)
입력
Error
Room Number
(lecture)
입력
no
Error
ID and Name
입력
학생
ID and Name
입력
no
insert 학생정보 into table
해당 학생의
RoomNumber
(lecture)을
총 몇번 들었는지 count
끝

#만든 메소드와 클래스 - Main

chulsuk.java | *informChulsuk.java

```java
package Databases;

import java.text.DateFormat;

public class chulsuk {
    static informChulsuk IC = new informChulsuk();
    static viewForTeacher AD = new viewForTeacher();
    static DateFormat DF = new SimpleDateFormat("yyyy-MM-dd HH:mm:ss");
    static Calendar cal = Calendar.getInstance();
    static LocalDateTime LDT = LocalDateTime.now();
    static int countForStudent = 0;
    static int countForTeacher = 0;

    public static void main(String[] args) {

        while (true) {
            Date d = new Date();
            System.out.println(d);
            System.out.println("Menu");
            System.out.println("1. For Students");
            System.out.println("2. For Teacher");

            String input = informChulsuk.sc.next();

            if (input.equals("1")) {

                informChulsuk.goodLuckForStudent();

            } else if (input.equals("2")) {
                System.out.println("1. watch attendance");
                System.out.println("0. Back");
                informChulsuk.attendance(viewForTeacher.sc.next());

            } else {
                System.out.println("Error");
            }
        }
    }
}
```

viewForTeacher.java | inputSQL.java

#출석 확인을 위한 메소드

```java
package Databases;

import java.util.Scanner;

public class viewForTeacher {
    static inputSQL mysql = new inputSQL();
    static Scanner sc = new Scanner(System.in);
    public static void viewAttendance(String A) {

        if (A.equals("1")) {
            System.out.println("Enter Student No and Name");

            int no = inputSQL.sc.nextInt();
            String name = inputSQL.sc.next();

            inputSQL.getsql("create or replace view view_" + name + "_" + A + " as select count(room_" + A + ") from students"
                    + " where name = '" + name + "' and id = " + no + " and room_" + A + " = 1;");

            inputSQL.getsql("select * from view_" + name + "_" + A + ";");

        } else if (A.equals("2")) {
            System.out.println("Enter Student No and Name");

            int no = inputSQL.sc.nextInt();
            String name = inputSQL.sc.next();

            inputSQL.getsql("create or replace view view_" + name + "_" + A + " as select count(room_" + A + ") from students"
                    + " where name = '" + name + "' and id = " + no + " and room_" + A + " = 1;");

            inputSQL.getsql("select * from view_" + name + "_" + A + ";");
        } else if (A.equals("3")) {
            System.out.println("Enter Student No and Name");

            int no = inputSQL.sc.nextInt();
            String name = inputSQL.sc.next();

            inputSQL.getsql("create or replace view view_" + name + "_" + A + " as select count(room_" + A + ") from students"
                    + " where name = '" + name + "' and id = " + no + " and room_" + A + " = 1;");

            inputSQL.getsql("select * from view_" + name + "_" + A + ";");
        } else {
            System.out.println("Back");
        }
    }
}
```

```java
public static void attendance(String a) {
    if (a.equals("1")) {
        System.out.println("1. Class room 1 (Math)");
        System.out.println("2. Class room 2 (Java)");
        System.out.println("3. Class room 3 (Database)");
        System.out.println("0. Back");
        viewForTeacher.viewAttendance(sc.next());
        System.out.println();
    } else if (!(a.equals("1")) && !(a.equals("0"))) {
        System.out.println("Error");
    }
}

public static void goodLuckForStudent() {
    System.out.println("Class room 1");
    System.out.println("Class room 2");
    System.out.println("Class room 3");
    System.out.println("Back 4");
    String A = sc.next();

    if (A.equals("1")) {
        System.out.println("Enter Personal Number, Name and Scan");
        int b = sc.nextInt();
        String c = sc.next();
        int d = 1;
        int e = 0;
        int f = 0;
        studentEnter(b, c, d, e, f);
        System.out.println("Enter room 1 Good Luck");

    } else if (A.equals("2")) {
        System.out.println("Enter Personal Number, Name and Scan");

        int b = sc.nextInt();
        String c = sc.next();
        int d = 0;
        int e = 1;
        int f = 0;
        studentEnter(b, c, d, e, f);
        System.out.println("Enter room 2 Good Luck");

    } else if (A.equals("3")) {
        System.out.println("Enter Personal Number, Name and Scan");

        int b = sc.nextInt();
        String c = sc.next();
        int d = 0;
        int e = 0;
        int f = 1;
        studentEnter(b, c, d, e, f);
        System.out.println("Enter room 3 Good Luck");
        } else {
        System.out.println("Error");
    }
}


public static void studentEnter(int ID, String name, int room_1, int room_2, int room_3) {

    int b = ID;
    String c = name;
    int d = room_1;
    int e = room_2;
    int f = room_3;
    String query = "insert into students(id, name, room_1, room_2, room_3) values('" + b + "', '" + c + "', '" + d
            + "', '" + e + "', '" + f + "');";

    Statement statement = null;
    ResultSet resultSet = null;
    Connection connection = null;
    String id = "root";
    String password = "SEOK09HWAN19!";

    try {
        connection = DriverManager.getConnection(
                "jdbc:mysql://localhost:3306/schoolmanagement?useUnicode=true&characterEncoding=utf8&serverTimezone=Asia/Seou
                id, password);
        statement = connection.createStatement();

        if (statement.execute(query)) {
            resultSet = statement.getResultSet();
        }

        while (resultSet != null && resultSet.next()) {
            String str = resultSet.getString(1);

            System.out.println(str);
        }
    } catch (NullPointerException e1) {
        e1.printStackTrace();
    } catch (Exception e1) {
        e1.printStackTrace();
    }
}
}
```

#학생 출석용 메소드

#데이터 베이스 연동을 위한 메소드

```java
package Databases;

import java.sql.Connection;

public class inputSQL {
    static Scanner sc = new Scanner(System.in);
    public static void getsql(String a) {
        Statement statement = null;
        ResultSet resultSet = null;
        Connection connection = null;
        String id = "root";
        String password = "SEOK09HWAN19!";

        String dbQuery = a;

        try {
            connection = DriverManager.getConnection(
                    "jdbc:mysql://localhost:3306/schoolmanagement?useUnicode=true&characterEncoding=utf8&serverTimezone=Asia/Seoul&useSSL=false",
                    id, password);
            statement = connection.createStatement();

            if (statement.execute(dbQuery)) {
                resultSet = statement.getResultSet();
            }

            while (resultSet != null && resultSet.next()) {
                String str = resultSet.getString(1);

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

        }
    }
```

#입력

```
Wed May 13 13:32:23 KST 2020
Menu
1. For Students
2. For Teacher
1
Class room 1
Class room 2
Class room 3
Back 4
2
Enter Personal Number, Name and Scan
1 shin
Enter room 2 Good Luck
```

```
Wed May 13 13:32:23 KST 2020
Menu
1. For Students
2. For Teacher
1
Class room 1
Class room 2
Class room 3
Back 4
2
Enter Personal Number, Name and Scan
1 shin
Enter room 2 Good Luck
Wed May 13 13:32:43 KST 2020
Menu
1. For Students
2. For Teacher
1
Class room 1
Class room 2
Class room 3
Back 4
3
Enter Personal Number, Name and Scan
2 seok
Enter room 3 Good Luck
Wed May 13 13:34:29 KST 2020
Menu
1. For Students
2. For Teacher
```

#오류

```
1. For Students
2. For Teacher
1
Class room 1
Class room 2
Class room 3
Back 4
4
Error
Wed May 13 13:35:32 KST 2020
Menu
1. For Students
2. For Teacher
```

```
mysql> select * from students;
+----+------+------+--------+--------+--------+
| NO | ID   | NAME | room_1 | room_2 | room_3 |
+----+------+------+--------+--------+--------+
| 29 |    1 | shin |      0 |      1 |      0 |
+----+------+------+--------+--------+--------+
1 row in set (0.00 sec)
```

```
mysql> select * from students;
+----+------+------+--------+--------+--------+
| NO | ID   | NAME | room_1 | room_2 | room_3 |
+----+------+------+--------+--------+--------+
| 29 |    1 | shin |      0 |      1 |      0 |
| 30 |    2 | seok |      0 |      0 |      1 |
+----+------+------+--------+--------+--------+
2 rows in set (0.00 sec)
```

#데이터 입력의 예

```
mysql> select * from students;
+----+------+------+--------+--------+--------+
| NO | ID   | NAME | room_1 | room_2 | room_3 |
+----+------+------+--------+--------+--------+
| 29 |    1 | shin |      0 |      1 |      0 |
| 30 |    2 | seok |      0 |      0 |      1 |
| 31 |    1 | shin |      1 |      0 |      0 |
| 32 |    1 | shin |      1 |      0 |      0 |
| 33 |    1 | shin |      1 |      0 |      0 |
| 34 |    2 | shin |      1 |      0 |      0 |
| 35 |    2 | seok |      1 |      0 |      0 |
| 36 |    1 | shin |      0 |      1 |      0 |
| 37 |    1 | shin |      0 |      1 |      0 |
| 38 |    1 | shin |      0 |      0 |      1 |
+----+------+------+--------+--------+--------+
10 rows in set (0.00 sec)
```

#출력

```
Wed May 13 13:38:15 KST 2020
Menu
1. For Students
2. For Teacher
2
1. watch attendance
0. Back
1
1. Class room 1 (Math)
2. Class room 2 (Java)
3. Class room 3 (Database)
0. Back
2
Enter Student No and Name
1 shin
3
```

```
} else if (A.equals("2")) {
    System.out.println("Enter Student No and Name");

    int no = inputSQL.sc.nextInt();
    String name = inputSQL.sc.next();

    inputSQL.getsql("create or replace view view_" + name + "_" + A + " as select count(room_" + A + ") from students"
            + " where name = '" + name + "' and id = " + no + " and room_" + A + " = 1;");

    inputSQL.getsql("select * from view_" + name + "_" + A + ";");
```