1. Check constraint on uni numbers 9, 29, 32

```
[cssc0030@edoras ~]$ clear
[cssc0030@edoras ~]$ sqlplus st30/cs514@cs514

SQL*Plus: Release 11.2.0.4.0 Production on Tue Aug 15 13:31:45 2017

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ERROR:
ORA-28002: the password will expire within 99 days

SQL> alter table infobb02 add check(uni <>'29');

Table altered.

SQL> insert into infobb02 (empno, uni) values('791', '29');
insert into infobb02 (empno, uni) values('791', '29')
*
ERROR at line 1:
ORA-02290: check constraint (ST30.SYS_C0019716) violated

SQL> alter table infobb02 add check(uni <>'32');

Table altered.

SQL> insert into infobb02 (empno, uni) values('791', '32');
insert into infobb02 (empno, uni) values('791', '32')
*
ERROR at line 1:
ORA-02290: check constraint (ST30.SYS_C0019718) violated

SQL> alter table infobb02 add check(uni <>'9');

Table altered.

SQL> insert into infobb02 (empno, uni) values('791', '9');
insert into infobb02 (empno, uni) values('791', '9')
*
ERROR at line 1:
ORA-02290: check constraint (ST30.SYS_C0019719) violated
```

SQL>

---

2. Java

```
[cssc0030@edoras ~]$ clear
[cssc0030@edoras ~]$ vi hw4java.java
import java.io.*;
import java.util.*;
import java.sql.*;
public class hw4java {
  public static void main(String [] aa) {
    String url;
    url = "jdbc:oracle:thin:@moria.sdsu.edu:1521:cs514";
    Statement stmt;
    Connection con;
    Scanner sc = new Scanner(System.in);
    int a = sc.nextInt();
    String query = ("select average from infobb02 where empno = " + "'" + a + "'");
    try {
      Class.forName("oracle.jdbc.driver.OracleDriver").newInstance();
    }
    catch (Exception e) {
      System.out.println("MR.UnitSitQueries.constructor.Exception: " +
        e);
    }
    try {
      con = DriverManager.getConnection(url,aa[0],aa[1]);

      stmt = con.createStatement();

      ResultSet rs = stmt.executeQuery(query);

      while (rs.next()) {
        String s1 = rs.getString(1);
        if (a.toString() = "null"){
          System.out.println("employee with eid" + a + "has no batting average");
        }
        else if (a < 200) {
          System.out.println("employee with eid" + a + "has an average below the Mendoza line");
```

```
        }
      else
        System.out.println("employee with eid" + a + "has a batting average of" + s1);
      }

      stmt.close();
      con.close();
    }
    catch (SQLException e) {System.out.println("OOPS" + e.getMessage());}
  }
"hw4java.java" 44L, 1335C
29,11       Top
```

PROOF IT WORKS

```
[cssc0030@edoras ~]$ clear
[cssc0030@edoras ~]$ java -cp ~cssc0030/classes12.zip:. hw4java st30 cs514
777
270  [cssc0030@edoras ~]$
```

^

That's orestes's empno and average!

---

3. Doubles tennis pairs

```
[cssc0030@edoras ~]$ clear
[cssc0030@edoras ~]$ sqlplus st30/cs514@cs514

SQL*Plus: Release 11.2.0.4.0 Production on Tue Aug 15 13:42:49 2017

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ERROR:
ORA-28002: the password will expire within 99 days


Connected to:
Oracle Database 11g Enterprise Edition Release 11.2.0.4.0 - 64bit Production
With the Partitioning, Oracle Label Security, OLAP, Data Mining
and Real Application Testing options
```

SQL> select c.ename as "coach", i.ename as "infielder" from empbb02 c, empbb02 i where c.deptno = 40 and i.deptno =10;

```
coach           infielder
--------------- ---------------
rickey          gehrig
rickey          minoso
rickey          sandberg
rickey          cey
lasorda          gehrig
lasorda          minoso
lasorda          sandberg
lasorda          cey
bochy           gehrig
bochy           minoso
bochy           sandberg


coach           infielder
--------------- ---------------
bochy            cey
berra           gehrig
berra           minoso
berra           sandberg
berra           cey

16 rows selected.

SQL>
```

---

4. Stored function

```
[cssc0030@edoras ~]$ vi getUni.fn
CREATE OR REPLACE FUNCTION getUni(name in empbb02.ename%TYPE)
  RETURN infobb02.uni%TYPE as uninum infobb02.uni%type;
   BEGIN
     SELECT uni
     INTO uninum
     FROM empbb02, infobb02
     WHERE empbb02.empno = infobb02.empno AND name = ename;
     RETURN (uninum);
   END;
 /
```

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~
"getUni.fn" 10L, 293C
10,3   All

[cssc0030@edoras ~]$ clear
[cssc0030@edoras ~]$ sqlplus st30/cs514@cs514

SQL*Plus: Release 11.2.0.4.0 Production on Tue Aug 15 14:45:35 2017

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ERROR:
ORA-28002: the password will expire within 99 days

Connected to:
Oracle Database 11g Enterprise Edition Release 11.2.0.4.0 - 64bit Production
With the Partitioning, Oracle Label Security, OLAP, Data Mining
and Real Application Testing options

SQL> start getUni.fn

Function created.

SQL> select ename, getUni(ename) as " Minoso's Uni number" from empbb02 where ename =
'minoso';

ENAME

 Minoso's Uni number
----
minoso
27

SQL>

---

5. Stored procedure

---

7. Whip

[cssc0030@edoras ~]$ clear
[cssc0030@edoras ~]$ sqlplus st30/cs514@cs514

SQL*Plus: Release 11.2.0.4.0 Production on Tue Aug 15 16:31:29 2017

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ERROR:

ORA-28002: the password will expire within 99 days

Connected to:
Oracle Database 11g Enterprise Edition Release 11.2.0.4.0 - 64bit Production
With the Partitioning, Oracle Label Security, OLAP, Data Mining
and Real Application Testing options

SQL> set pages 500
SQL> select * from infobb02;

```
EMPNO FNAME     NICK          UNI    AVERAGE     ERA HOFDATE
----- ---------- --------------- ---- ---------- ---------- ---------
 712  branch              56                  01-JAN-67
 735  tommy              62                  01-JAN-97
 707  bruce              64       220
 777  orestes    minnie      27      270       32 01-JAN-94
 763  lou        iron horse   14      350          01-JAN-39
 782  stan       the man      19      342          01-JAN-14
 798  larry      yogi        66      290          01-JAN-72
 788  ron        penguin     35      287          02-JAN-17
 730  willie     say hey kid  24      325          01-JAN-79
 755  randy      the big unit  8      123     2.15 01-JAN-15
 744  mordecai   3 fingers    25      168      3.27 01-JAN-49
 721  ryne       rhino       17      294          01-JAN-05
 799  van lingle            31      220     2.82 01-JAN-74
 720  ted        teddy ballgame 10     350          01-JAN-87
 766  ivan       pudge        4      339          01-JAN-17
```

15 rows selected.

SQL> alter table infobb02 add whip VARCHAR2(5);

Table altered.

SQL> update infobb02 set whip = '1.171' where empno = '755';

1 row updated.

SQL> update infobb02 set whip = '1.092' where empno = '744';

1 row updated.

SQL> update infobb02 set whip = '1.337' where empno = '799';

1 row updated.

SQL> update infobb02 set whip = 'null' where empno = '712';

1 row updated.

SQL> update infobb02 set whip ='null' where empno = '735';

1 row updated.

SQL> update infobb02 set whip = 'null' where empno = '707';

1 row updated.

SQL> update infobb02 set whip = 'null' where empno = '777';

1 row updated.

SQL> update infobb02 set whip ='null' where empno = '763';

1 row updated.

SQL> update infobb02 set whip ='null' where empno ='782';

1 row updated.

SQL> update infobb02 set whip ='null' where empno = '798';

1 row updated.

SQL> update infobb02 set whip ='null' where empno ='788';

1 row updated.

SQL> update infobb02 set whip = 'null' where empno = '730';

1 row updated.

SQL> update infobb02 set whip = 'null' where empno = '721';

1 row updated.

SQL> update infobb02 set whip = 'null' where empno ='720';

1 row updated.

SQL> update infobb02 set whip = 'null' where empno = '766';

1 row updated.

SQL> select * from infobb02;

```
EMPNO FNAME     NICK          UNI   AVERAGE      ERA HOFDATE  WHIP
----- ---------- --------------- ---- ---------- ---------- --------- -----
 712  branch              56                  01-JAN-67 null
 735  tommy               62                  01-JAN-97 null
 707  bruce               64      220                  null
 777  orestes   minnie      27      270       32 01-JAN-94 null
 763  lou       iron horse   14      350          01-JAN-39 null
 782  stan       the man      19      342          01-JAN-14 null
 798  larry      yogi        66      290       01-JAN-72 null
 788  ron        penguin      35      287          02-JAN-17 null
 730  willie     say hey kid   24      325          01-JAN-79 null
 755  randy      the big unit  8      123      2.15 01-JAN-15 1.171
 744  mordecai  3 fingers     25      168       3.27 01-JAN-49 1.092
 721  ryne      rhino        17      294          01-JAN-05 null
 799  van lingle             31      220      2.82 01-JAN-74 1.337
 720  ted        teddy ballgame 10      350          01-JAN-87 null
 766  ivan       pudge        4      339          01-JAN-17 null
```

15 rows selected.

SQL>