```
1. hw5trig.sql
[cssc0030@edoras ~]$ clear
[cssc0030@edoras ~]$ vi hw5trig.sql
DROP TABLE newhires purge;
CREATE TABLE newhires as select empno, hiredate, ename from empbb02;
CREATE OR REPLACE TRIGGER hw5trig
AFTER INSERT ON empbb02
FOR EACH ROW
BEGIN
    INSERT INTO newhires (empno, hiredate, ename)
    VALUES(:new.empno,:new.hiredate,:new.ename);
END;
/
```

```
"hw5trig.sql" 11L, 277C
                                              9,2-9
                                                         ΑII
[cssc0030@edoras ~]$ clear
[cssc0030@edoras ~]$ sqlplus st30/cs514@cs514
SQL*Plus: Release 11.2.0.4.0 Production on Thu Aug 10 14:41:41 2017
Copyright (c) 1982, 2013, Oracle. All rights reserved.
ERROR:
ORA-28002: the password will expire within 104 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 hw5trig.sql
Table dropped.
Table created.
Trigger created.
SQL> insert into empbb02(empno,hiredate,ename) values( '121', '02-january-1951', 'grayman');
1 row created.
SQL> select * from newhires;
EMPNO HIREDATE ENAME
```

- 120 01-JAN-50 gregman
- 712 01-JAN-98 rickey
- 735 10-JAN-98 lasorda
- 707 11-JAN-98 bochy
- 798 12-JAN-98 berra
- 782 01-FEB-98 musial
- 763 11-MAR-98 gehrig
- 777 05-MAY-98 minoso
- 721 28-FEB-98 sandberg
- 788 10-JAN-99 cey
- 720 05-JAN-99 williams

### EMPNO HIREDATE ENAME

----

- 755 08-NOV-98 johnson
- 744 18-OCT-99 brown
- 730 01-JAN-98 mays
- 799 10-MAR-00 mungo
- 766 16-OCT-01 rodriguez
- 121 02-JAN-51 grayman

17 rows selected.

SQL>

#### 2. Trace of rain

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

SQL\*Plus: Release 11.2.0.4.0 Production on Thu Aug 10 13:39:41 2017

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## ERROR:

ORA-28002: the password will expire within 104 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 year, aug from rainfall where aug <= .04;

| YEAR | AUG |
|------|-----|
| 1850 | 0   |
| 1851 | 0   |
| 1855 | .04 |
| 1856 | 0   |
| 1857 | .02 |
| 1858 | .04 |
| 1859 | 0   |
| 1860 | 0   |
| 1861 | 0   |
| 1862 | 0   |
| 1863 | 0   |
| 1864 | 0   |
| 1865 | 0   |
| 1868 | 0   |
| 1869 | 0   |
| 1871 | 0   |
| 1874 | 0   |
| 1877 | 0   |
| 1878 | 0   |
| 1879 | 0   |
| 1881 | .01 |
| 1882 | 0   |
| 1883 | 0   |
| 1884 | 0   |
| 1886 | 0   |
| 1887 | 0   |
| 1888 | 0   |
| 1889 | .04 |
| 1890 | 0   |
| 1891 | 0   |
| 1893 | 0   |
| 1894 | .04 |
| 1895 | 0   |
| 1897 | 0   |
|      |     |

| 1898 | 0   |
|------|-----|
| 1900 | 0   |
| 1901 | 0   |
| 1902 | 0   |
|      |     |
| 1903 | 0   |
| 1904 | 0   |
| 1905 | 0   |
| 1907 | 0   |
| 1909 | 0   |
| 1911 | 0   |
| 1913 | .02 |
| 1914 | 0   |
| 1915 | 0   |
| 1916 | .01 |
| 1917 | 0   |
| 1919 | .01 |
| 1920 | .01 |
| 1921 | 0   |
| 1922 | 0   |
| 1923 | 0   |
| 1924 | 0   |
| 1925 | .01 |
| 1927 | .01 |
| 1928 | .03 |
| 1929 | 0   |
| 1930 | 0   |
| 1932 | 0   |
| 1933 | .01 |
| 1934 | .02 |
| 1937 | 0   |
| 1938 | .03 |
| 1939 | 0   |
| 1940 | 0   |
| 1941 | .03 |
| 1942 | 0   |
| 1943 | 0   |
| 1944 | 0   |
| 1946 | 0   |
| 1947 | 0   |
| 1948 | 0   |
| 1949 | 0   |
| 1950 | 0   |
| 1952 | 0   |
|      |     |

| 1953 | 0   |
|------|-----|
| 1954 | 0   |
| 1956 | 0   |
| 1957 | 0   |
| 1958 | 0   |
| 1959 | 0   |
| 1960 | 0   |
| 1961 | .04 |
| 1962 | 0   |
| 1963 | 0   |
| 1964 | 0   |
| 1965 | 0   |
| 1966 | 0   |
| 1968 | 0   |
| 1969 | .01 |
| 1970 | 0   |
| 1971 | .03 |
| 1972 | .02 |
| 1973 | 0   |
| 1974 | 0   |
| 1975 | 0   |
| 1976 | .01 |
| 1978 | 0   |
| 1979 | .01 |
| 1980 | 0   |
| 1981 | 0   |
| 1982 | 0   |
| 1985 | 0   |
| 1986 | 0   |
| 1987 | .01 |
| 1988 | 0   |
| 1989 | 0   |
| 1990 | .01 |
| 1991 | .01 |
| 1993 | 0   |
| 1994 | .01 |
| 1995 | 0   |
| 1996 | 0   |
| 1997 | 0   |
| 1998 | 0   |
| 1999 | 0   |
| 2000 | .01 |
| 2001 | 0   |

```
2002
         0
2003
         0
2004
         0
2005
         0
2006
        .01
2007
         0
2008
         0
2009
         0
2010
         0
2011
         0
2012
         0
2013
         0
2015
        .01
2016
         0
2017
         0
```

135 rows selected.

SQL>

## 3. xtrabases.sql

```
[cssc0030@edoras ~]$ clear
[cssc0030@edoras ~]$ vi xtrabases.sql
DROP TABLE stats PURGE;
DROP TYPE team_type;
DROP TYPE xtrabases;
CREATE TYPE xtrabases AS Object(
    num_doubles NUMBER,
    num_triples NUMBER,
    num_homeruns NUMBER,
    member function dingers RETURN NUMBER
    );
/
CREATE TYPE team_type AS
    VARRAY(10) OF VARCHAR2(24);
/
CREATE TABLE stats (
    fname VARCHAR2(16),
```

```
Iname VARCHAR2(16),
    xtrabs xtrabases,
    team team_type
INSERT INTO stats VALUES('John', 'Snoltz', xtrabases(null, null, 288), team_type('Atlanta
Braves'));
INSERT INTO stats VALUES('Jackie', 'Robinson', xtrabases(null, null, 137),
team_type('Brooklyn Dodgers'));
INSERT INTO stats VALUES('Cal', 'Ripkin', xtrabases(null,null, 131), team_type('Baltimore
Orioles'));
INSERT INTO stats VALUES('Mike', 'Piazza', xtrabases(null,null,427), team_type('New York
INSERT INTO stats VALUES('Willie', 'Mays', xtrabases(null, null,660), team_type('San
Francisco Giants'));
12,2-9
          ΑII
[cssc0030@edoras ~]$ clear
[cssc0030@edoras ~]$ sqlplus st30/cs514@cs514
```

SQL\*Plus: Release 11.2.0.4.0 Production on Tue Aug 15 12:54:24 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 xtrabases  |
| Table dropped.  |
| Type dropped.   |
| Type dropped.   |
| Type created.   |
| Type created.   |
| Table created.  |
| 1 row created.  |

SQL> select \* from stats; FNAME LNAME XTRABS(NUM\_DOUBLES, NUM\_TRIPLES, NUM\_HOMERUNS) TEAM John Snoltz XTRABASES(NULL, NULL, 288) TEAM\_TYPE('Atlanta Braves') Jackie Robinson XTRABASES(NULL, NULL, 137) TEAM\_TYPE('Brooklyn Dodgers') FNAME LNAME XTRABS(NUM DOUBLES, NUM TRIPLES, NUM HOMERUNS) TEAM Cal Ripkin XTRABASES(NULL, NULL, 131) TEAM\_TYPE('Baltimore Orioles') Mike Piazza XTRABASES(NULL, NULL, 427) FNAME LNAME XTRABS(NUM\_DOUBLES, NUM\_TRIPLES, NUM\_HOMERUNS) TEAM \_\_\_\_\_ TEAM\_TYPE('New York Mets') Willie Mays XTRABASES(NULL, NULL, 660) TEAM TYPE('San Francisco Giants') SQL>

# Dingers procedure

```
[cssc0030@edoras ~]$ clear
[cssc0030@edoras ~]$ vi dingersproc.sql
CREATE OR REPLACE TYPE BODY xtrabases
AS MEMBER FUNCTION dingers RETURN NUMBER
 IS
 BEGIN
    return self.num_homeruns;
 END;
END;
show errors
"dingersproc.sql" 9L, 164C
5,2-9
         ΑII
```

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

SQL\*Plus: Release 11.2.0.4.0 Production on Tue Aug 15 13:04:38 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 dingersproc

Type body created.

No errors.

SQL>