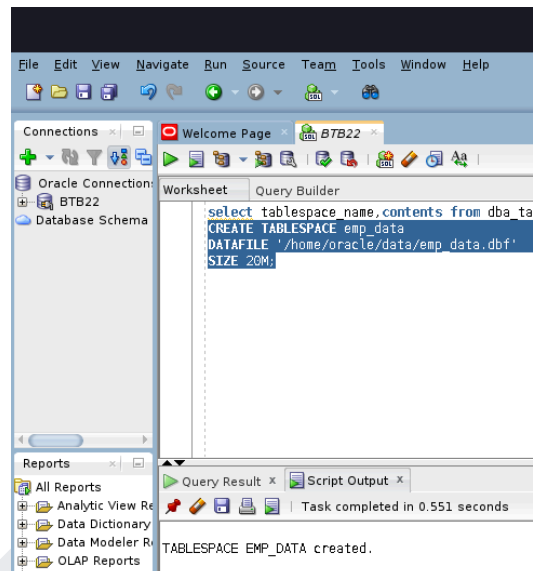


## Experiment No. : 4

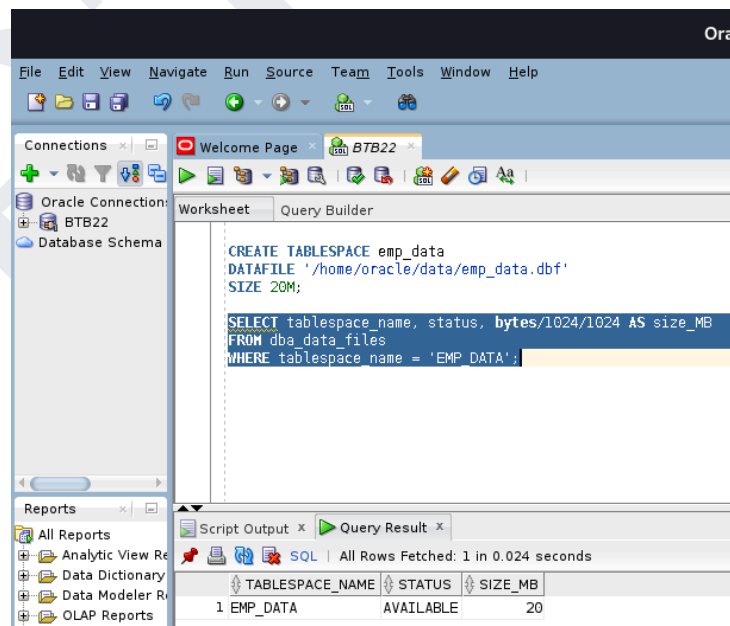
### Implementation of Tablespace in Oracle

#### 1. Creating and Managing Tablespaces

- a. Create a new tablespace named emp\_data with an initial size of 20MB.

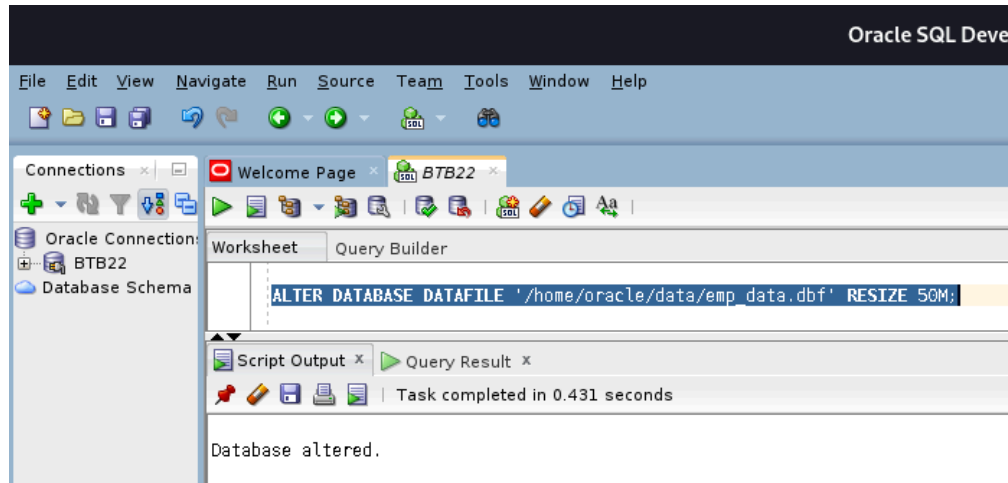


- b. Check the size and status of the tablespace using an SQL query.

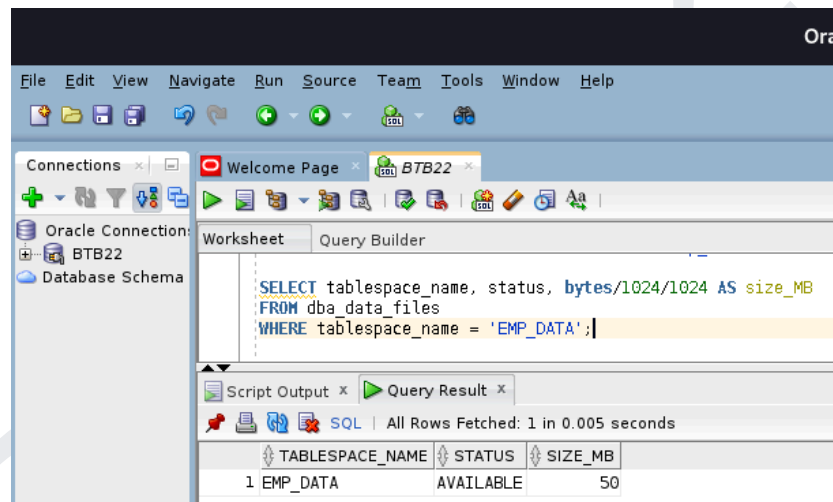


## 2. Resize the Tablespace

- a. Resize the emp\_data tablespace to 50MB

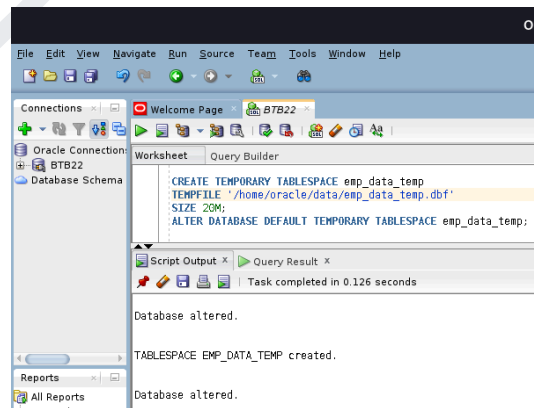


- b. Verify the size change

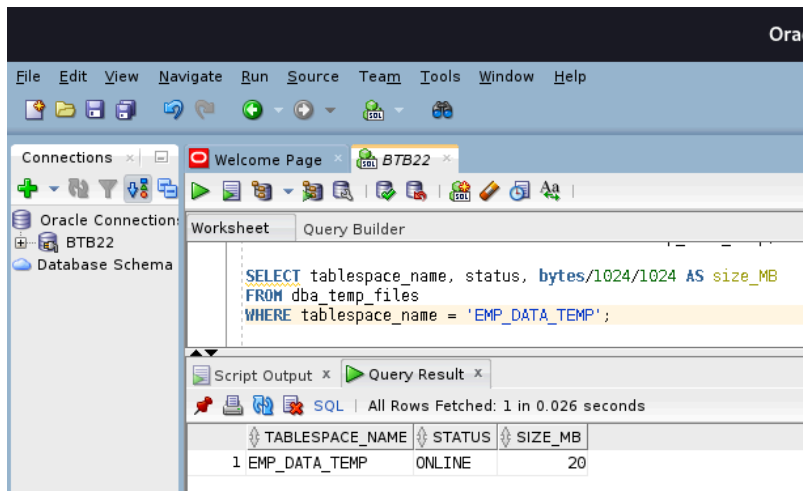


## 3. Temporary Tablespace

- c. Create a temporary tablespace and assign it as the default

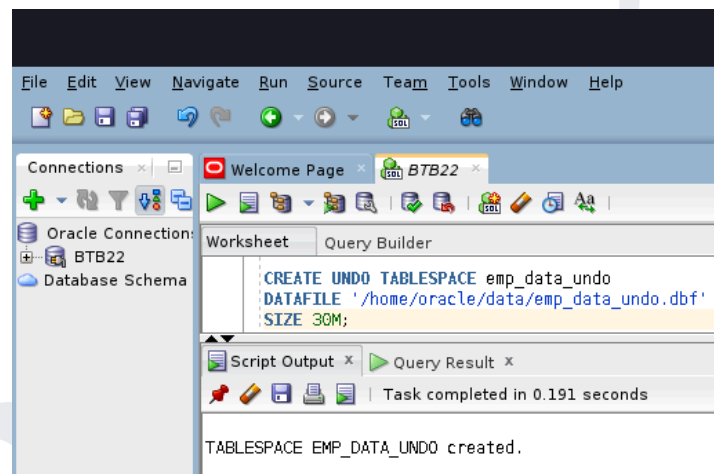


- d. Check the size and status of the tablespace using an SQL query.

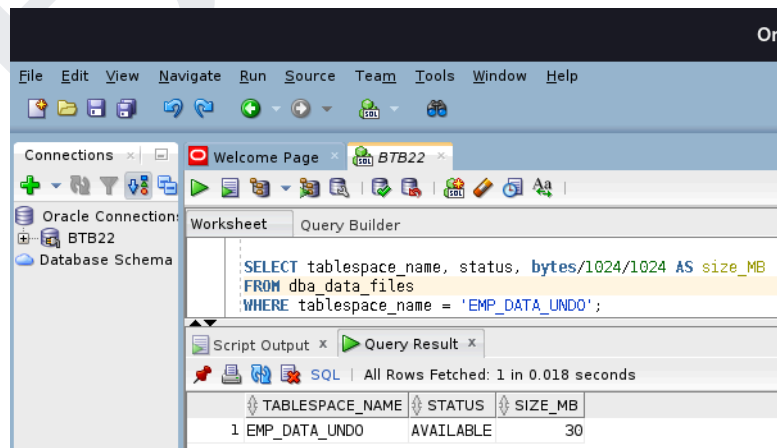


#### 4. Undo Tablespace

- a. Create an undo tablespace

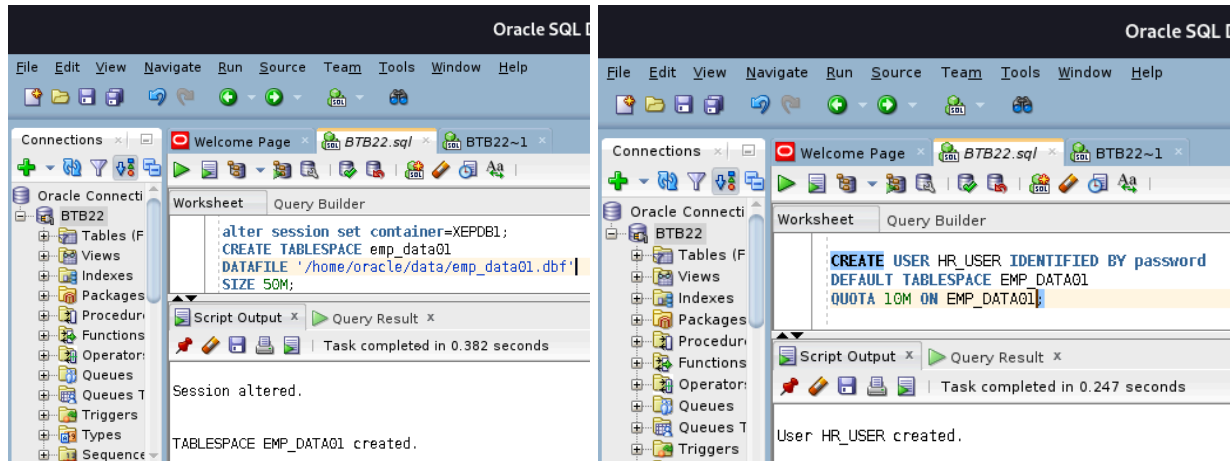


- b. Check the size and status of the tablespace using an SQL query

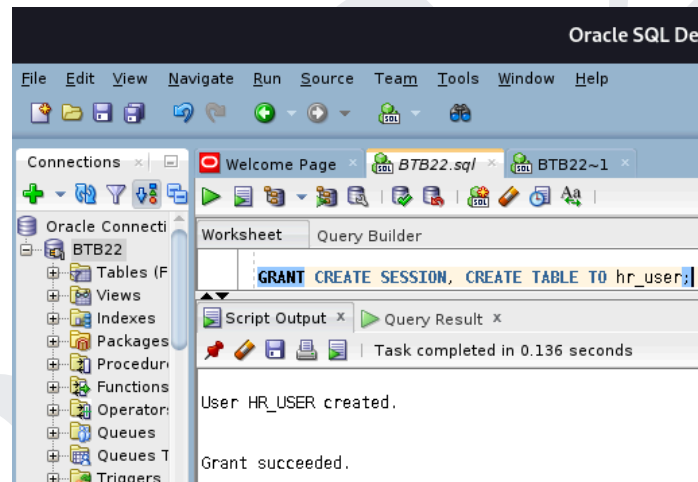


## 5. Create user and assign Tablespace Quotas

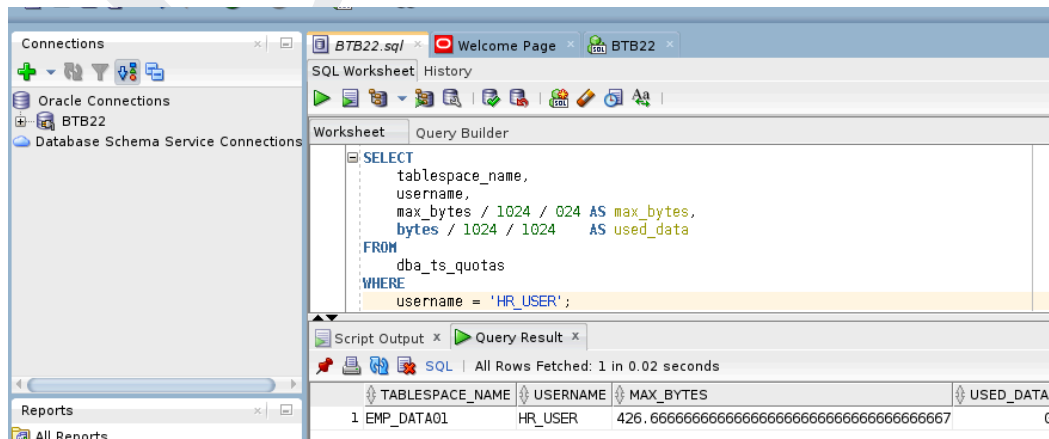
- a. Create user hr\_user on the emp\_data tablespace and Assign a 10MB quota to HR\_USER on the emp\_data tablespace



- b. grant create session, create table to hr\_user

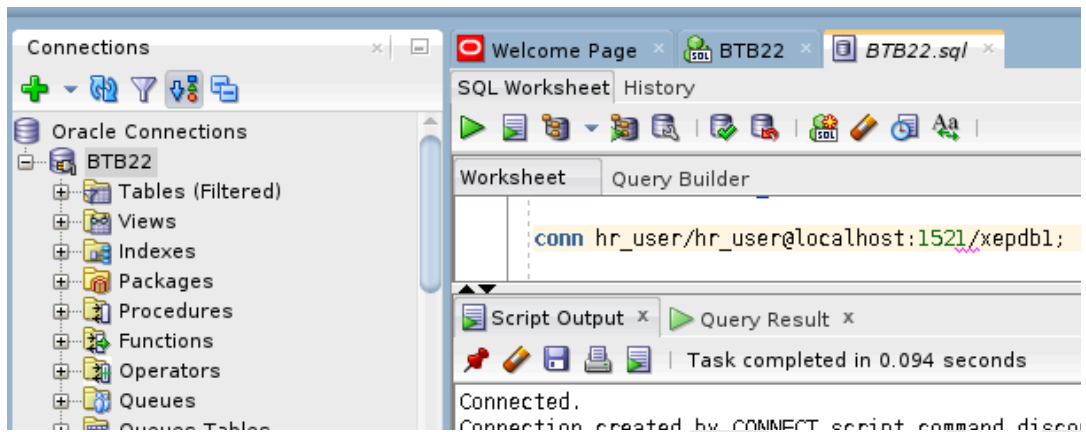


- c. check `max_bytes` and `used_data` for `hr_user`

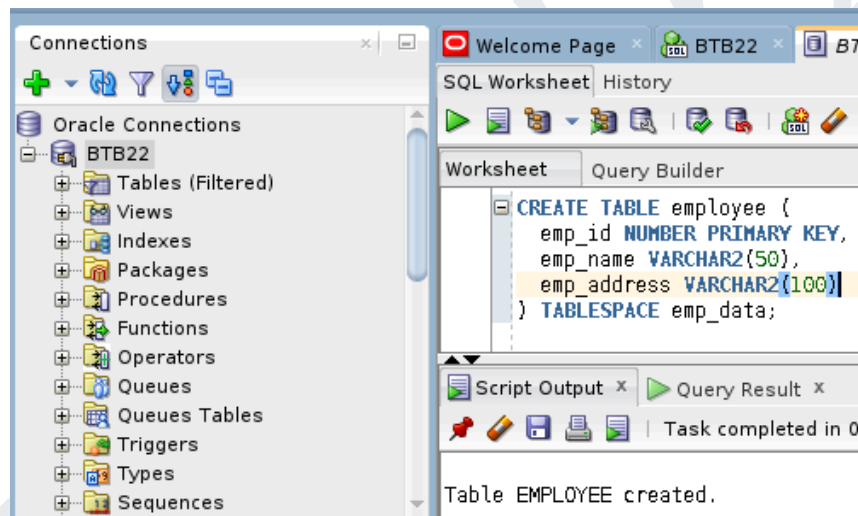


## 6. Create Table in tablespace

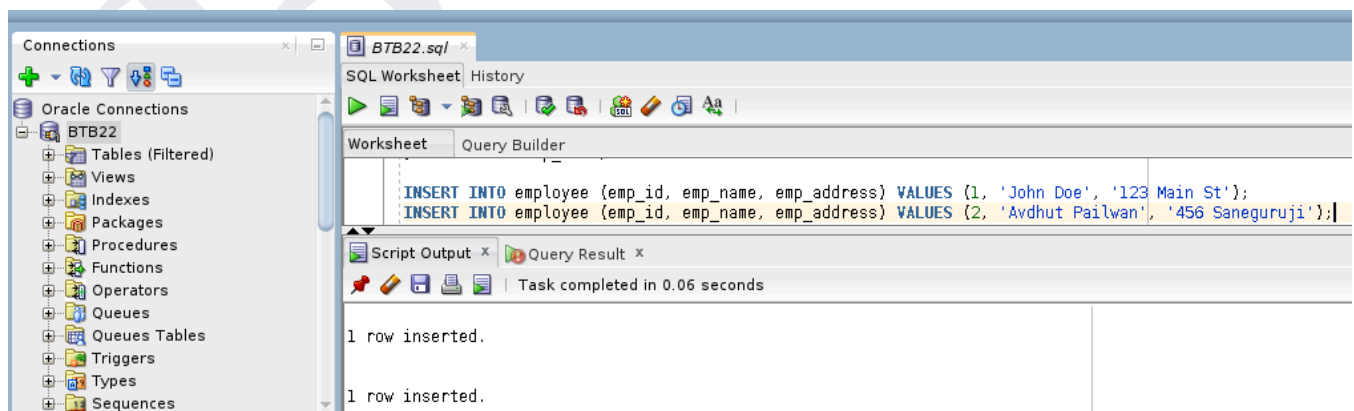
### a. Connect with hr\_user



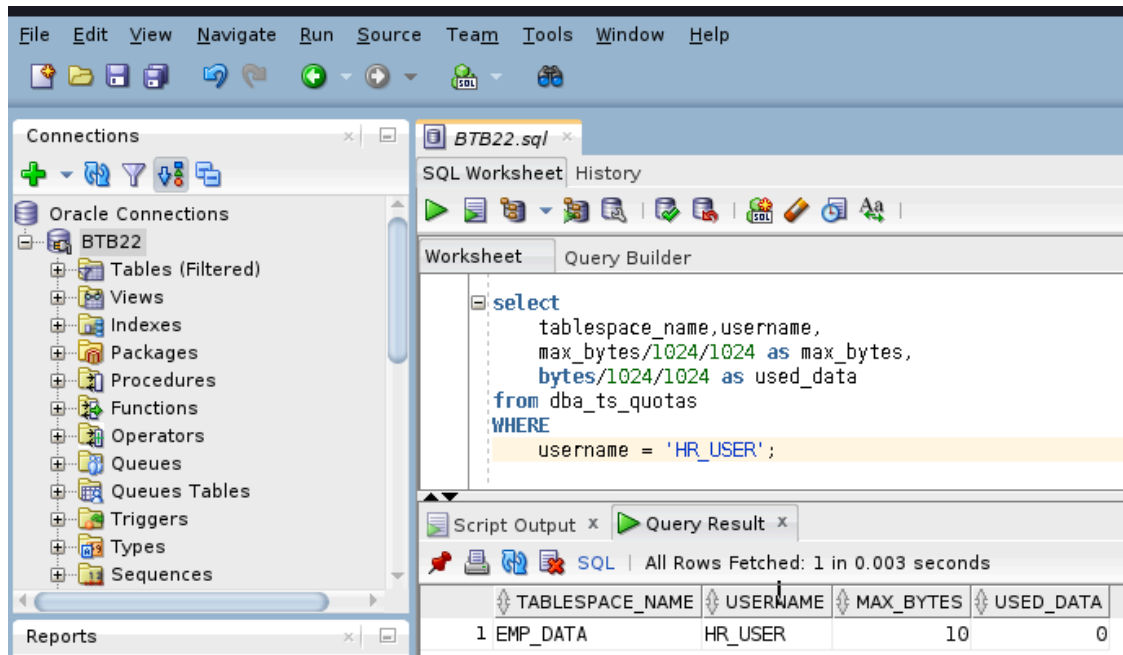
### b. Create table employee in table space with attributes emp\_id, emp\_name, emp\_address



### c. Insert few records in employee table

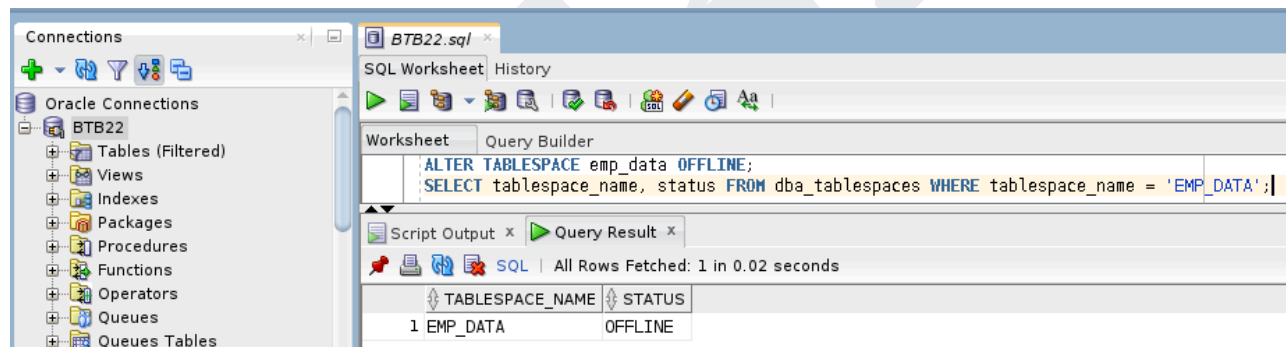


### d. check max\_bytes and free\_space for hr\_user

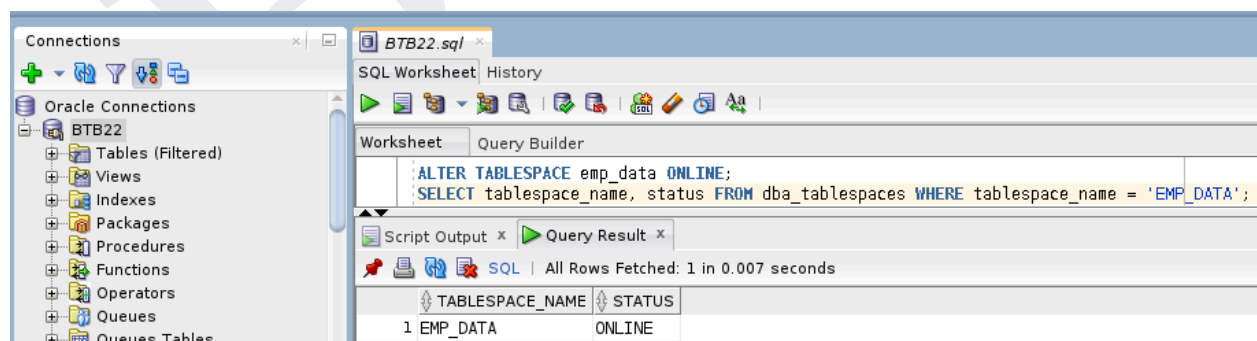


## 7. Updates to tablespace

- Take the emp\_data tablespace offline and verify that the tablespace is offline

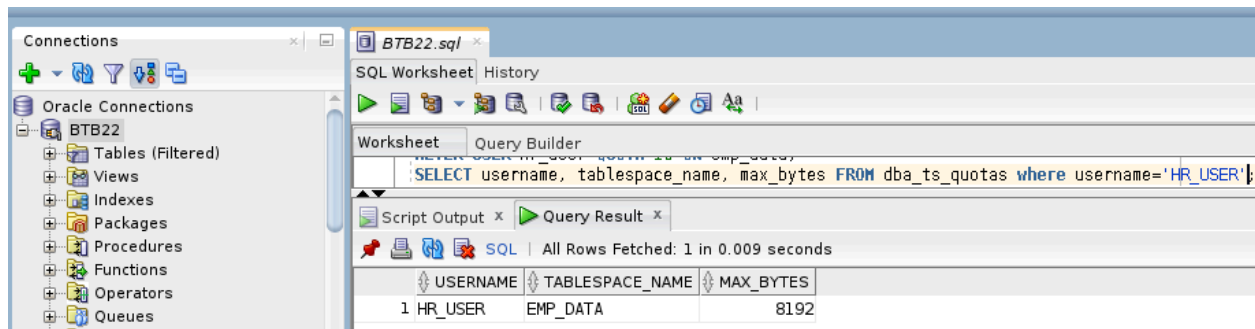


- Bring the emp\_data tablespace back online and verify the tablespace status

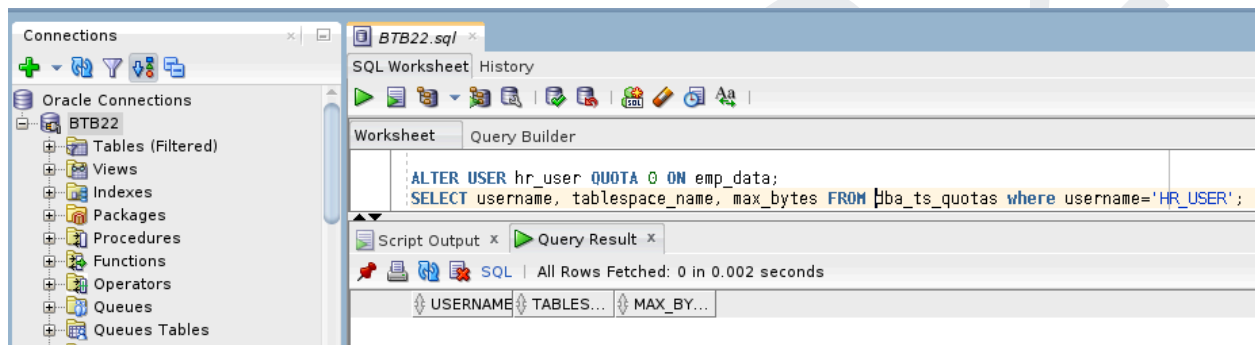


- Remove the quota for HR\_USER on the emp\_data tablespace and verify the quota removal.

Before:



After:



Code:

```
ALTER SESSION SET container = xepdb1;  
  
CREATE TABLESPACE emp_data  
    DATAFILE '/home/oracle/data/emp_data.dbf' SIZE 20M;  
  
SELECT  
    tablespace_name,  
    status,  
    bytes / 1024 / 1024 AS size_mb  
FROM  
    dba_data_files  
WHERE  
    tablespace_name = 'EMP_DATA';
```

```
ALTER DATABASE DATAFILE '/home/oracle/data/emp_data.dbf' RESIZE 50M;
```

```
SELECT
    tablespace_name,
    status,
    bytes / 1024 / 1024 AS size_mb
FROM
    dba_data_files
WHERE
    tablespace_name = 'EMP_DATA';
```

```
CREATE TEMPORARY TABLESPACE emp_data_temp
    TEMPFILE '/home/oracle/data/emp_data_temp.dbf' SIZE 20M;
```

```
ALTER DATABASE DEFAULT TEMPORARY TABLESPACE emp_data_temp;
```

```
SELECT
    tablespace_name,
    status,
    bytes / 1024 / 1024 AS size_mb
FROM
    dba_temp_files
WHERE
    tablespace_name = 'EMP_DATA_TEMP';
```

```
CREATE UNDO TABLESPACE emp_data_undo
    DATAFILE '/home/oracle/data/emp_data_undo.dbf' SIZE 30M;
```

```
SELECT
    tablespace_name,
    status,
    bytes / 1024 / 1024 AS size_mb
FROM
    dba_data_files
WHERE
    tablespace_name = 'EMP_DATA_UNDO';
```

```
CREATE USER hr_user IDENTIFIED BY hr_user
    DEFAULT TABLESPACE emp_data
    QUOTA 10M ON emp_data;
```

```
GRANT
    CREATE SESSION,
```



```

CREATE TABLE
TO hr_user;

SELECT
    tablespace_name,
    username,
    max_bytes / 1024 / 1024 AS max_bytes,
    bytes / 1024 / 1024 AS used_data
FROM
    dba_ts_quotas
WHERE
    username = 'HR_USER';

conn hr_user/hr_user@localhost:1521/xepdb1;

CREATE TABLE employee (
    emp_id NUMBER PRIMARY KEY,
    emp_name VARCHAR2(50),
    emp_address VARCHAR2(100)
) TABLESPACE emp_data;

INSERT INTO employee (emp_id, emp_name, emp_address) VALUES (1, 'John Doe',
'123 Main St');
INSERT INTO employee (emp_id, emp_name, emp_address) VALUES (2, 'Avdhut
Pailwan', '456 Saneguruji');

select
    tablespace_name,username,
    max_bytes/1024/1024 as max_bytes,
    bytes/1024/1024 as used_data
from dba_ts_quotas
WHERE
    username = 'HR_USER';

ALTER TABLESPACE emp_data OFFLINE;
SELECT tablespace_name, status FROM dba_tablespaces WHERE tablespace_name =
'EMP_DATA';

ALTER TABLESPACE emp_data ONLINE;
SELECT tablespace_name, status FROM dba_tablespaces WHERE tablespace_name =
'EMP_DATA';

ALTER USER hr_user QUOTA 0 ON emp_data;

```

```
SELECT username, tablespace_name, max_bytes FROM dba_ts_quotas where  
username='HR_USER';
```