1.Create a new database in oracle using “Database Configration Assistant”.

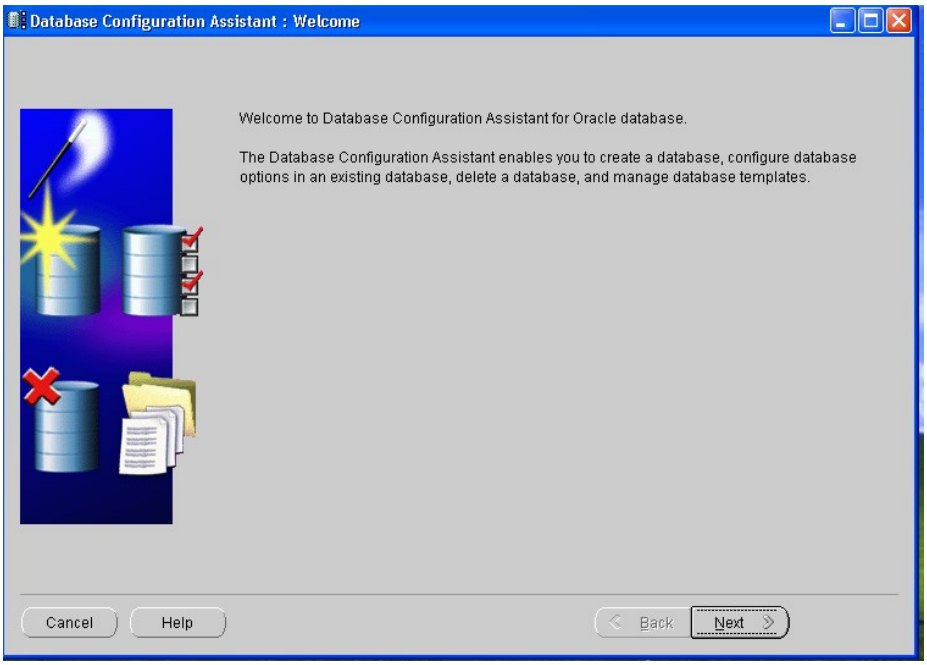
Step 1: start

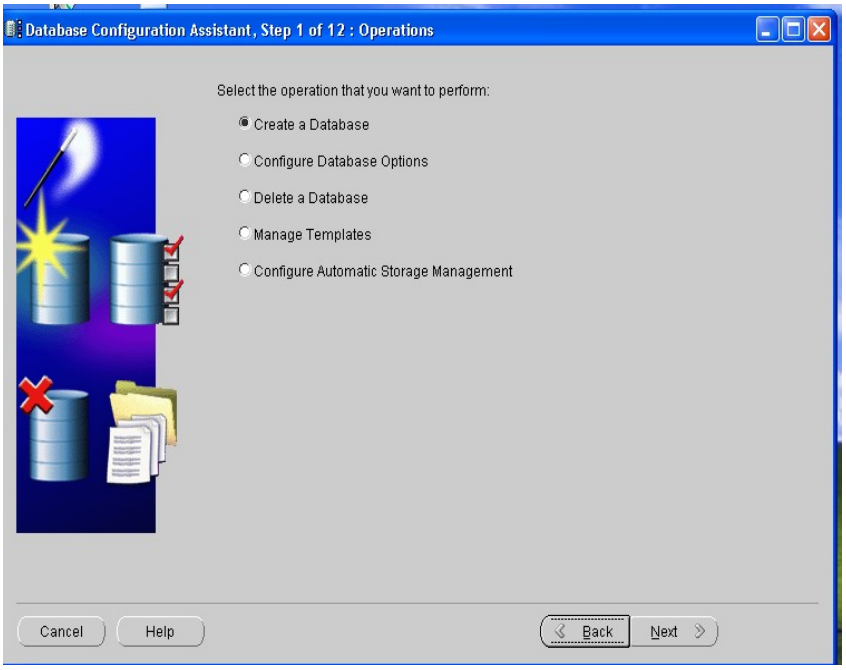
Step 2: All Programs

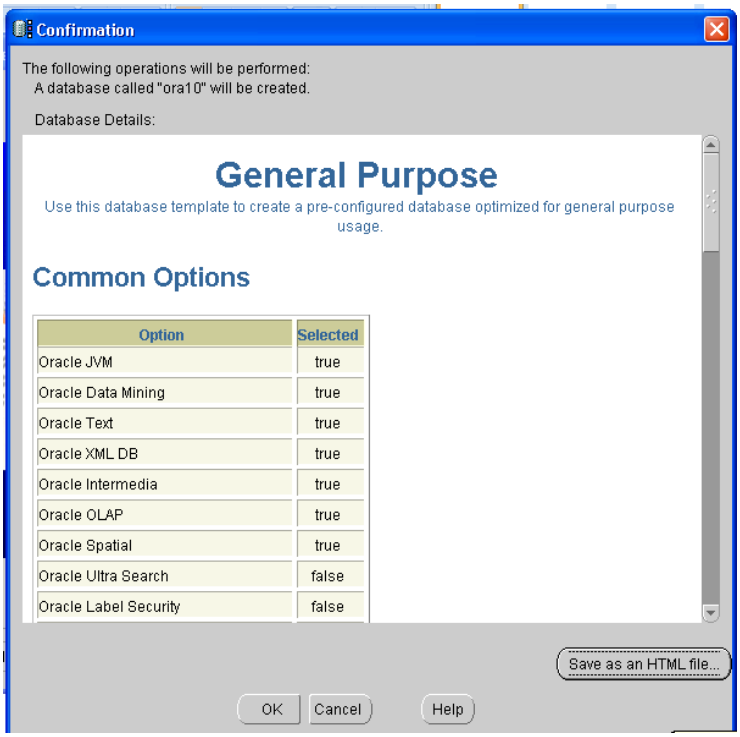
Step3: oracle_oracle 10g

Step 4: configuration and migration tools

Step5: database configuration assistant




Database Configuration Assistant, Step 1 of 12 : Operations
Select the operation that you want to perform:
Create a Database
Configure Database Options
Delete a Database
Manage Templates
Configure Automatic Storage Management
Cancel
Help
Back
Next


Confirmation
The following operations will be performed:
A database called "ora10" will be created.
Database Details:
General Purpose
Use this database template to create a pre-configured database optimized for general purpose usage.
Common Options
Option
Selected
Oracle JVM
true
Oracle Data Mining
true
Oracle Text
true
Oracle XML DB
true
Oracle Intermedia
true
Oracle OLAP
true
Oracle Spatial
true
Oracle Ultra Search
false
Oracle Label Security
false
Save as an HTML file...
OK
Cancel
Help

2.Create a new user & grant privileges of creating table,sequence& view to this new user.

SQL> create user xyz identified by abc;

User created.

SQL> grant create table,createsequence,create view to xyz;

Grant succeeded

3.Create a new role named manager for with same privileges.
Grant this role new user. Then change the password of newly created user.

SQL> create role manager;

Role created.

SQL> grant create table,create view to manager;

Grant succeeded.

SQL> grant manager to xyz;

Grant succeeded.

SQL> alter user xyz identified by pass;

User altered.

4.Revoke the role manager from new created. Then delete that user.

SQL> revoke manager from xyz;

Revoke succeeded.

SQL> drop user xyz;

User dropped.

Managing Tablespaces

Viewing Information about Tablespaces

To view information about Tablespaces in a database give the following query

SQL> select * from dba_tablespaces

```
TABLESPACE_NAME            BLOCK_SIZE INITIAL_EXTENT NEXT_EXTENT MIN_EXTENTS MAX_EXTENTS
   PCT_INCREASE M
------------------------------ ---------- -------------- ----------- ----------- ----------- -------
SYSTEM                           8192      65536              1  2147483645           65536 ONLINE    PERMANENT LOGGING   NO
   L
UNDOTBS1                         8192      65536              1  2147483645           65536 ONLINE    UNDO      LOGGING   NO
   LOCA
SYSAUX                           8192      65536              1  2147483645           65536 ONLINE    PERMANENT LOGGING   NO
   L
TEMP                             8192    1048576    1048576         1              0    1048576 ONLINE    TEMPORARY NOLOGGING
   NO  LOC
USERS                            8192      65536              1  2147483645           65536 ONLINE    PERMANENT LOGGING   NO
   LO
EXAMPLE                          8192      65536              1  2147483645           65536 ONLINE    PERMANENT NOLOGGING
   NO
```

6 rows selected.

SQL> select * from v$tablespace;

```
TS# NAME                           INC BIG FLA ENC
--- ------------------------------ --- --- --- ---
  0 SYSTEM                         YES NO  YES
  1 UNDOTBS1                       YES NO  YES
  2 SYSAUX                         YES NO  YES
  4 USERS                          YES NO  YES
  3 TEMP                           NO  NO  YES
  6 EXAMPLE                        YES NO  YES
```

SQL> select tablespace_name from dba_tablespaces;
SQL> select table_name from dba_tables where tablespace_name = 'USERS'

5. Create a tablespace named “dba_tablespace” with file name “dba_tablespace_datafile.dbf” having size of 10mb.

SQL> create tablespace dba_tablespace

2 datafile 'C:\program

files(x86)\oracle\dba_tablespace_datafile.dbf'3* size 10m

4 ;

Tablespace created.

6.Create a tablespace named “ts_mydemo” with two datafile named “ts_mydemo01.dbf” & “ts_mydemo02.dbf “ having size of 50mb and 64mb respectively . Make the tablespaceautoextendable and limit autoextending to size of 2048mb.In autoextending ,next extend should of 32mb.

```
SQL> create tablespacets_mydemo
2  datafile 'c:/program files/oracle/ts_mydemo01.dbf'size 50m,
3  'c:/program files/oracle/ts_mydemo02.dbf' size 64m
4  autoextend on next 32m maxsize 2048m;

Tablespace created
```

7.Alter the last datafile “ts_mydemo01.dbf” so that its size will automatically extend by 5mb& limit its size to 500mb.

```
SQL> alter database datafile 'c:/program files/oracle/ts_mydemo01.dbf'
autoextend on
2  next 5m
3 maxsize 500m;
Database altered.
```

8.Create temporary table space with size of 5mb which will be automatically increase on demand.

```
SQL> create temporary tablespacetemp_demo
2  tempfile 'temp01.dbf' size 5m autoextend on;

Tablespace created.
```

9. Create any locally managed tablespace with own specification.

SQL> create tablespacetbs_localdatafile 'filef.f' size 10m

2 extent management local uniform size 128k;

Tablespace created.

10. Add new Redo log file of size 10mb to existing database.

SQL> alter database add logfile 'c:/program files/oracle/log5.ora' size 10m;

Database altered.

11. Display the list of all Redo log files.

SQL> select *from v$logfile;

GROUP# STATUS TYPE

MEMBER

IS_

---

3 STALE ONLINE

F:\ORACLE\PRODUCT\10.2.0\ORADATA\ORCL\REDO03.LOG

NO

```
         2        ONLINE
F:\ORACLE\PRODUCT\10.2.0\ORADATA\ORCL\REDO02.LOG
NO

    GROUP# STATUS  TYPE
                 _______          _____        _____
MEMBER
                 ____________________________________________________
IS_
---

         1 STALE   ONLINE
F:\ORACLE\PRODUCT\10.2.0\ORADATA\ORCL\REDO01.LOG
NO
   4        ONLINE
C:\PROGRAM FILES\ORACLE\LOG5.ORA

    GROUP# STATUS  TYPE
                 _______          _____        _____
MEMBER
                 ____________________________________________________
IS_
---
NO
```

12. Display the list,datafiles,tablespace names & size in MB.

```
SQL> clear breaks;
breaks cleared
SQL> set linesize 130
SQL> set pagesize 60
SQL> break on tablespace_name skip 1
SQL> col tablespace_name format a15
SQL> col file_name format a50
SQL> col tablespace_kb heading 'TABLESPACE|TOTAL_KB'
SQL> col kbytes_free heading 'TOTAL FREE|KBYTES'
SQL> select file_name,tablespace_name, ROUND(bytes/1024000) mb
2  fromdba_data_files order by 1;

FILE_NAME                                TABLESPACE_NAME        MB
                    ----------------------------------------

C:\PROGRAM FILES\ORACLE\DBA_TABLESPACE_DATAFILE.DB
DBA_TABLESPACE          10
F


C:\PROGRAM FILES\ORACLE\TS_MYDEMO01.DBF          TS_MYDEMO
51
C:\PROGRAM FILES\ORACLE\TS_MYDEMO02.DBF
66
```

F:\ORACLE\PRODUCT\10.2.0\DB_1\DATABASE\FILEF.F TBS_LOCAL
10

F:\ORACLE\PRODUCT\10.2.0\ORADATA\ORCL\SYSAUX01.DBF SYSAUX
246

F:\ORACLE\PRODUCT\10.2.0\ORADATA\ORCL\SYSTEM01.DBF SYSTEM
492

F:\ORACLE\PRODUCT\10.2.0\ORADATA\ORCL\UNDOTBS01.DB
UNDOTBS1 31
F

F:\ORACLE\PRODUCT\10.2.0\ORADATA\ORCL\USERS01.DBF USERS
5

8 rows selected.

13. Create rollback segment in separate tablespace with proper storage option.

```
1  createtablespacesmall_rollbacks
2  datafile 'c:program files/oracle/small_rollbacks.dbf' size 20m reuse
  3* default storage(initial 250k next 250k maxextents 20)
SQL> /

Tablespace created.
SQL> alter session set undo_suppress_errors=true;

Session altered.
SQL>  create  rollback segment small_rollbacks
2  tablespacesmall_rollbacks
3  storage(initial 250k next 250k maxextents 20);

Rollback segment created.
```

14. Create a 3 new abstract datatype as given below

1. NAME_TYPE(F_NAME,M_NAME,L_NAME)

2. POST_TYPE(MAIN,SFX)

3. ADDR_TYPE(STREET,CITY,STATE,POSTCODE)

```
  SQL> create type name_type as object(f_namevarchar(15),
2  m_init char(1),
  3 l_namevarchar2(20));
4 /
```

```
Type created.
SQL> create type post_type as object(main integer,sfx integer);
2  /
```

```
Type created.
SQL> create type add_type as object(
2  street varchar2(35),
3  cityvarchar(15),state char(2),postcode post_type);
4 /
```

```
Type created.
```

15. Use the above created abstract typr in newly created table engineers. Also insert values in it.

SQL> create table engineers(emp_numinteger,namename_type,addressadd_type);

Table created.

SQL> insert into engineers values(12,name_type('yogita','B','kaushal'),
2 add_type('hiwarinager','nagpur','mh',
3 post_type(4400,08)));

1 row created.

SQL> select * from engineers;

EMP_NUM

NAME(F_NAME, M_INIT, L_NAME)

ADDRESS(STREET, CITY, STATE, POSTCODE(MAIN, SFX))

12

NAME_TYPE('yogita', 'B', 'kaushal')

ADD_TYPE('hiwarinager', 'nagpur', 'mh', POST_TYPE(4400, 8))

16. Create a varying array name medicine_arr and use this in table medicine_arr. Perform dml operation on this table.

```
SQL> create type medicines as object(med_id number(6),
2  med_name varchar2(14),
3  manf_date date);
4 /

Type created.
SQL> create type medicine_arr1 as varray(40) of medicines;
2 /

Type created.
```

17. Create a table studinfo having column name,rollno,phy,maths,comp,total and percentage. Write a trigger to autometicallycalculate students total marks and percentage of students while insertion.

```
SQL> create table studinfo(
2  name varchar2(20),
3  rollno number(3),
4  phy  number(3),
5  math  number(3),
6  comp number(3),
7  total  number(5),
8  per number(3,2));
```

Table created.

```
SQL> create or replace trigger totper
2  before insert on studinfo
3  for each row
4  begin
5  :new.total:=:new.math+:new.phy+:new.comp;
6  :new.per:=(:new.total/300)*100;
7 endtotper;
8 /
```

Trigger created.

```
  SQL>insert into studinfo(name,rollno,phy,math,comp)
2  values('sid',1,7,7,7)
3 /
```

1 row created.

```
SQL> select * from studinfo;
```

NAME	ROLLNO	PHY	MATH	COMP	TOTAL	PER
sid	1	7	7	7	21	7

18. Write a PLSQL block using cursor to transfer names and sal of employee from emp tables where sal>-2500 in table 'try1'.

```
SQL>  declare cursor cf is
2  selectename,sal from emp
3  wheresal>=2500;
4  Mcf%rowtype;
5  N number;
6  begin open cf;
7  N:=0;
8  loop fetch cf into M;
9  exit when cf%notfound;
10  N:=cf%rowcount;
11  insert into try1
12  values(N,M.ename,M.sal);
13  end loop;
14  closecf;
15  end;
SQL> /

PL/SQL procedure successfully completed.
SQL> select * from try1;

 SERIAL_NO ENAME                                    SAL
 ---------- ------------------------------ ----------
         1 JONES                                2975
```

2 BLAKE	2850
3 SCOTT	3000
4 KING	5000
5 FORD	3000

19. Write a SQL query to display the following data information .

1) Name of database

2) Database startup time

3) Database size information(database size,used space, free Space)

```
SQL> select name from v$database;

NAME
---------
ORCL
SQL>select to_char(startup_time,'hh24:mi dd-mm-yy')"startup time"
2 fromv$instance;
startup time
-----------------
11:10 06-10-18

1  select round(sum(used.bytes)/1024/1024/1024)|| 'gb' "database size",
  2   round(sum(used.bytes)/1024/1024) || 'mb' "used space",
3  round(free.p/1024/1024) || 'mb' "free space"
4  from(select bytes
5  fromv$datafile
6   union all
7  select bytes
8   from v$tempfile
9  union all
10  select bytes
```

```
11  fromv$log) used,
12  (select sum(bytes)as p
13  fromdba_free_space)free
 14* group by free.p
SQL> /

database size       used space          free space
                    ---------------     ---------------     ----------
1gb                 1104mb              186mb
```

20. Take backup of EMP and DEPT table at a time and restore it to different user or machine.

OUTPUT: