

**PROJECT 6**  
**NEWAY IT SOLUTIONS**  
**AFFORDABLE ORACLE DBA HANDS-ON TRAINING**

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Some of these questions are theory and others are practical. I need you to do a research on the once you do not understand. You need to know all of these questions to be successful as a DBA. Remember our focus is hands-on. Make sure you give me all the steps in involved in answering the questions.

**Security**

- a.) You are implementing security in your database and observed that the following privileges were granted to public. UTL\_SMTP, UTL\_TCP, UTL\_HTTP and UTL\_FILE. Strip public of the above privileges.
- b.) You want to set up traditional auditing in your database and you were told that the audit record should be stored in the database. Display the steps to turn auditing on.
- c.) If your audit information goes into the database where would you find it?
- d.) Issue a query to audit anyone that drops employees table that belong to HR.
- e.) Using standard auditing, Issue a query to audit any one that drops a sequence and view, that belongs to another schema.
- f.) Issue a command to audit anyone that drops a role.
- g.) Issue a command to audit anyone that creates a table, user, view, tablespace, sequence and profile.
- h.) Using the standard auditing, issue a command to audit anyone that does and update or delete from the employees table that belong to hr.
- i.) Issue a query to audit all activity on emp table that belongs to scott.
- j.) Issue a query to stop auditing the following any one that creates a view and tablespace.

- k.) List 10 privileges that are audit by default in Oracle 11g. Google this!
- l.) Issue a query to audit every activity done by SCOTT and HR users in the database.
- m.) Issue a query to allow your audit record to be stored on the OS instead of the database.
- n.) If your audit information goes to the OS what determines where it goes on your OS. Show me the parameter.
- o.) It is ok to share accounts in Oracle true/false.
- p.) Display the command to turn on auditing for the sys user
- q.) The DBA and the system administrator must be the same people true/false
- r.) What is main difference between fine grain audit and the standard audit?
- s.) What procedure do you use to set up fine grain auditing?
- t.) Where do the audit records for fine grain auditing go?
- u.) Set up fine grain audit called all\_sal that will capture the query by anyone that does a select, insert, update and delete on the salary column of the emp table that belongs to Scott.
- v.) Set up fine grain audit called high\_sal to capture anyone that queries any salary over 5000 in the employee table owned by HR.
- w.) Issue a select \* from scott.emp by a non sys users. Then query the database to show me how the statement is captured in your audit record. Make sure you include in your query the database user who issued the query, the machine that was used the time the query was issued and the sql statement that was used.
- x.) **Disable** the fine grain audit for the audit that queries any salary over 5000 in the employee table owned by HR
- y.) **Drop** the 2 fine grain audit policy you created.

### Undo

- a.) Configure your undo tablespace to retain 4 days of data.

- b.) Issue a command to make let your undo tablespace guarantee every database in it for at least the set retention.
- c.) You don't want the undo data in your undo tablespace to be guaranteed anymore. Issue a command to change it.
- d.) Issue a command to show whether your undo tablespace is in guarantee or in no guarantee
- e.) Increase your current undo tablespace size to 5g.
- f.) Issue a command to display which undo tablespace your database is using?
- g.) **What is ORA-01555 snapshot too old error?**
- h.) A user got this error ORA-01650: **unable to extend rollback segment----** what is the problem and how do you fix it.
- i.) Create a new undo tablespace with 3g size called undotbs3. Make sure undotbs3 automatically extends when full set the initial to 10m and the maxsize to unlimited.
- j.) Make undotbs3 you just created the new database default undo tablespace
- k.) Add one more datafile to your undo tablespaces undotbs3 with 2g size. Let the datafile automatically increase when full set the initial to 10m and the maxsize to unlimited
- l.) Drop your old undo tablespace undotbs1
- m.) Mention 2 differences between undo data and redo data.

### **Listener**

- a.) If you currently have a listener, drop your listener and tell me the tool you used to drop it.
- b.) Create a new listener. Call the name listener2, use the default port and protocol.
- c.) Test your newly created listener by connecting to the database by using connect hr/hr@orcl.

This assuming that your database name is orcl. If you get an error try to fix it.

- d.) Show me the content of your listener file.
- e.) Which tools do you use to manage your listener from the command line?
- f.) What is the command to check the status of your listener on unix
- g.) What is the name of your listener file and where is it located.
- h.) Issue a command to stop your listener then issue another command to check the status afterwards.
- i.) You issue this command to connect to your database. SQL> connect scott/tiger@orcl and got the following error. ORA12514 TNS:listener does not currently know of service requested in connect descriptor. What is the problem and how do you resolve it.
- j.) You issue this command to connect to your database. SQL> connect scott/tiger@orcl and got the following error ORA12541: TNS no listener. What could be the problem and what are the possible solutions.
- k.) Issue a command to start your listener and show me the command.
- l.) What tool do you use to register your database with the listener
- m.) Register your database orcl or (whatever the name is) with the listener and show me the content of the listener file as proof of registration.
- n.) Create a new database called orcl7. Choose all your desired options
- o.) Create a new listener called LATEST\_LISTENER. Configure the listener to use port 1522 register your orcl7 database with LATEST\_LISTENER.
- p.) Where is your listener log file located?
- q.) Issue a tns command to check if the listener for the orcl7 database is available.
- r.) Which tool do you use to test if the listener specified in the Oracle net service name is up or down?

### **Tnsnames**

- a.) What is the name of your tns file and where is it located?

- b.) Delete your tnsfile file from the OS.
- c.) Issue an OS command to determine the name of your database server.
- d.) Issue an OS command to determine if your database server can be reached. Key word: 'ping'
- e.) Which tool do you use to create tnsname file and entry?
- f.) Create a new tnsname file entry for your orcl database. Configure the service to be dedicated and not shared.
- g.) Use your first name as the net services name in your tnsnames.
- h.) Connect to your database (orcl) using the net service name like connect hr/hr@yourfirstname. If you get any error fix it.
- i.) Create another tns entry for your orcl database in your tns file using your last name as the net service name. Configure the service to be dedicated.
- j.) Connect to your database (orcl) using your lastname alias like connect hr/hr@yourlast\_name. If you get any error, fix it.
- k.) Show me the content of your tnsnames with the 2 tns entries you created above.
- l.) Create a tns entry for the orcl7 database you created earlier. Make sure the port is 1522. Configure the tnsnames to connect to the database as connect sys/oracle@new\_orcl7 as sysdba. If you get any error. Fix it. (Note that the listener port must be the same).
- m.) You issue this command to connect to your database. SQL> connect scott/tiger@orcl and got the following error: **ORA: 12154 TNS:could not resolve the connect identifier specified**. What could be the problem and how do you resolve it.
- n.) You issue this command to connect to your database. SQL> connect scott/tiger@orcl and got the following error: TNS-12545: **Connect failed because target host or object does not exist**. What could be problem and how do you resolve.
- o.) Create a new database called orcl8 and make the sys password oracle. Choose any desired option. Create 5 tns entries for the orcl8 database let the net service names be test1, test2, test3, test4, test5. Let test 1, 2 and 3 be dedicated and test4 and 5 be also dedicated server. Connect to orcl8 database like this SQL> connect sys/oracle@test1

as sysdba. SQL> connect sys/oracle@test2 as sysdba. Do the same for test3, test4 and test5. Make sure you are able to successfully connect. If not fix the problems.

p.) Create another tns entry for orcl database. Make the port 1525 and the net service name NEW\_ORCL. **Remember the listener must have the same port and the database orcl must be manually registered with listener.** Connect to the database like this SQL> connect sys/oracle@new\_orcl as sysdba. Make sure you are able to connect successfully if not fix whatever issue you get.

### **5.) Database Maintenance.**

- a.) What is the full meaning of AWR and what is the main function?
- b.) How often does the AWR run?
- c.) What is the default retention period for the AWR?
- d.) How do you disable AWR?
- e.) Show the command and configure AWR to gather more statistics than the default.
- f.) What is the location of the AWR report script and what is the name of the script.
- g.) Run the AWR report for the last 2 snapshots.
- h.) Each snapshot of AWR is called what?
- i.) Run AWR and ADDM from enterprise.
- j.) What parameter controls how much statistics is gathered by AWR and optimizer. What are the options for the parameter and what is the default setting?
- k.) What is the purpose of the optimizer?
- l.) What type of statistics does the optimizer need to be well informed so as to do its job correctly?
- m.) What package do you use to gather statistics?
- n.) Issue a command to gather statistics for the employees and departments table that belong to Scott. Make sure index statistics that belong to those tables are gathered too.
- o.) Issue a command to gather statistics for the system schema.

- p.) Issue a command to gather statistics for the entire database.
- q.) Issue a command to gather statistics for all the indexes only in the emp tables that belong to scott.
- r.) Issue a command to gather statistics for the entire database include all indexes
- s.) Gather statistics for all the indexes that belong to hr.
- t.) Issue a command to gather statistics for Scott, HR, and OE schemas.
- u.) Issue a command to check the last time statistics was gathered for the hr and Scott schemas.
- v.) What is the full meaning of ADDM and what are the 2 main purposes.
- w.) How often does the ADDM run by default?
- x.) How do you see the results of ADDM?
- y.) List 5 advisory Frame work and what each one of them does. Google this!
- z.) What is the command to check for invalid objects in the database?
- aa.) All hr schemas' indexes are invalid. Issue a command to make them Valid.

### **6.) Redo and Archive log**

- a.) Issue a query to check whether your database is in archive log mode?
- b.) If your database is in archive log mode, switch it to no archive log mode and vice vase. After doing this, switch it back to archive log mode.
- c.) List the steps for question ii above. That is steps for changing your database to archive log and no archive log modes.
- d.) Duplex your archive log and list the steps for doing this. Let the directories be /home/oracle/archive and /u01/app/archive. **Create them if they do not exist** from the OS.
- e.) Issue a command to change your archive log destination to /home/oracle.
- f.) Which parameter determines the default location of the archive log?

- g.) Issue a command to display all your redo log files;
- h.) Issue a command to show me the redo log files that have not been archived
- i.) Issue a command to show me the size of the redo log file.
- j.) What is the recommended numbers of Control files
- k.) Issue a command to show me all your control files
- l.) What is the recommended number of redo log groups and members
- m.) Issue a command to force a log switch.
- n.) How do you check the location of your flash recovery area
- o.) Change your flash recovery area to /u01/app/ and issues a command to show me the new location. (NOTE you must create the directory if it does not exist).
- p.) What determines how big your flash recovery area is?
- q.) Increase the size of your flash recovery area to 25g.
- r.) All of a sudden your database hung. What could be the reason why it hung?
- s.) Show the location of the alert log file.
- t.) Open the alert log file of your database and show me the controfile creation script that is in it.
- u.) Show me the 2 VS virtual tables I can use to query information about the redo log file.
- v.) Show me both the virtual table and the data dictionaty table that I can use to get information about the database file.
- w.) Show me how to get the name of my database I am currently connected to
- y.) Show me the current version of my oracle database
- z.) Show me how to get the current instance number of my database.
- zz.) Show me all the tables that belong to both scott and or schemas



- aa) Show me all the indexes and tables that belong to both the hr and oe schemas.
- bb) Issue a simple command to mount your database: NOTE; this is just one command not two.
- cc) Issue another single command to change your database to nomount mode.
- dd) Issue a single command to open your database. Note: This is a single command.
- ee) Which mode does the database have to be to see any of the virtual tables (V\$)? Why?
- ff) Which mode does the database have to be in to see the data dictionary tables (dba\_)? Why?
- gg) Show me the location of the flash recovery area?
- hh) What is the flash recovery area used for?
- ii) Show me which table to query if I want to see all the data dictionary tables
- jj) Show me how to get to my password file in one command
- kk) Show me how to get to my listener ora file
- ll) Show me how to find my dbid for my database
- mm) Show me what/where is my default backup location( where all my backup/recovery files go automatically if one is not manually set). Show me how you would get there
- nn) Show me how to connect in one command to a different database if you have a different database on your system. DO NOT EDIT THE .BASH\_PROFILE
- oo) Why do I have to source the .bash\_profile?
- pp) What happens after I source the .bash\_profile? If I open another terminal will I still be connected to the database in the bash profile? If not, why?
- qq) What do I have to do to make the bash profile setting permanent?

## 7. USER LOCKS

- As the sysdba grant user HR the necessary privileges to update on the scott.emp table as
- Connect as the scott user and update the user with employee number 7844 so that his name changes from turner to amber. DO NOT COMMIT
- Open another terminal and log in as HR
- Update that SAME user with employee number 7844 (using the update command) changing that users name to Franky. Your command should HANG.
- What is the issue? Why is HR's command hanging? Fix it by killing Scott' session. Show me the command.

All projects should be sent to newayitsolutions@GMAIL.COM

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