ITTcert
BY ORSYS

Course : Oracle Database 19c: Multitenant Architecture

OFFICIAL COURSE: DIGITAL SUPPORT AVAILABLE FOR 90 DAYS ONLY

Practical course - 4d - 28h00 - Ref. ODD

With this training course, you'll gain a complete overview of the architecture and components of an Oracle multi-tenant container database, as well as its standard and application pluggable databases. You'll also learn how to create and manage a multi-tenant container database and its standard databases.

Teaching objectives

At the end of the training, the participant will be able to:

- Understanding multi-tenant architecture
- Create and manage multi-tenant container databases and pluggable databases
- Understanding standard and plug-in databases by application
- Manage storage in multi-tenant container databases and plug-in databases
- Managing security in a multi-tenant container database
- Manage security within standard and pluggable application databases
- Monitor performance and manage resources in a multi-tenant container database
- Monitor performance and manage resources within pluggable databases
- Perform backup, recovery and flashback operations on a multi-tenant container database
- Perform backup, recovery and flashback operations on pluggable databases
- Perform specific operations with Oracle Data Pump (transport, loading, encryption and auditing, etc.)
- Manage CDBs and PDBs in specific configurations such as Data Guard and Database Vault

Intended audience
Database administrators, administrators and architects.

PARTICIPANTS
Database administrators, administrators and architects.

PREREQUISITES
Completion of the following course Oracle Database 19c: Administration Workshop or equivalent knowledge and skills.

TRAINER QUALIFICATIONS
The experts who lead the training courses are specialists in the subjects covered. They are approved by the publisher and certified for the course. They have also been validated by our teaching teams in terms of both professional knowledge and teaching skills for each course they teach. They have at least three to ten years of experience in their field and hold or have held positions of responsibility in companies.

ASSESSMENT TERMS
Assessment of targeted skills prior to training.
Assessment by the participant, at the end of the training course, of the skills acquired during the training course.
Validation by the trainer of the participant's learning outcomes, specifying the tools used: multiple-choice questions, role-playing exercises, etc.
At the end of each training course, ITTCERT provides participants with a course evaluation questionnaire, which is then analysed by our teaching teams. Participants also complete an official evaluation of the publisher.
An attendance sheet for each half-day of attendance is provided at the end of the training course, along with a certificate of completion if the participant has attended the entire session.

Prerequisites

Completion of the following course Oracle Database 19c: Administration Workshop or equivalent knowledge and skills.

Certification

Successful completion of the exam leads to Oracle Database Administration II certification.

Comment passer votre examen ?

Practical details

Teaching methods

Animation de la formation en français. Support de cours et travaux pratiques en anglais, au format numérique et ACCESSIBLE UNIQUEMENT PENDANT 90 JOURS. Bonne compréhension de l'anglais à l'écrit.

Course schedule

1 **Container database (CDB) fundamentals**

- Discover the practice environment.
- Define and validate identification information called OEMCC.
- Explore CDB and PDB with Enterprise Manager Cloud Control.
- Use Enterprise Manager Express.

2 **Classic CDB and PDB (pluggable databases)**

- Explore the architecture and structures of the CBD.
- Create a new CDB.
- Create a pluggable database.

3 **PDB application and installation application**

- Install an application in an application container.
- Upgrade an application in an application container.
- Interrogate data between pluggable application databases in CDB.

4 **Creating pluggable databases**

- Clone remote pluggable databases in hot mode.
- Clone an application container.
- Disconnect and connect application containers.
- Convert a standard pluggable database into a pluggable application database.
- Move pluggable databases.
- Interrogate data between databases using pluggable proxy databases.
- Delete unnecessary pluggable databases.

5 **Managing the CBD and PDB**

- Starting and stopping CBD.
- Open and close pluggable databases.
- Rename a pluggable database.
- Transfer parameter values for pluggable databases.
- Rename PDB services.

(6) Storage

- Manage permanent and temporary tablespaces.
- Manage UNDO tablespaces.

(7) Security

- Manage common and local users, privileges and roles.
- Manage common and local objects in application containers.
- Enable the common user to display information on PDB objects.
- Manage pluggable database locking profiles.
- Audit operations in pluggable databases.
- Unplug and plug in encrypted pluggable databases.

(8) Save and duplicate

- Save RMAN Whole CDB.
- Save the RMAN plug-up database.
- Duplicate a pluggable database in an existing database.
- Duplicate a local CDB database for the cloud.

(9) Recovery and Flashback

- Recovering from the loss of a SYSTEM PDB data file with RMAN.
- Recover with RMAN in case of loss of non-essential PDB data file.
- PDB PITR.
- Recovering a plugged-in database using preplug-in backups.
- Flashing an application upgrade using restore points.

(10) Performance

- Monitor performance at CDB and PDB levels.
- Obtain ADDM performance recommendations at CDB and PDB level.
- Monitor SQL executions at pluggable database level.

(11) Allocate resources

- Manage performance profiles for pluggable databases.
- Manage resource allocation between pluggable databases.
- Avoid excessive use of session PGA memory in pluggable databases.

(12) Moving data

- Perform an export/import from a non-CDB 12c database to an 18c plug-up database.
- Perform an export/import from an 18c database to a 19c database.

(13) Upgrade methods

- Upgrade a standard pluggable database 18c to a pluggable application database 19c.
- Connect remote pluggable databases via XTTS.
- Upgrade a CDB 18c to a CDB 19c.