# GENESYS™

# Web Services and Applications Deployment Guide

## Initialize Oracle

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# Initialize Oracle

This article describes the initialization steps for Oracle Database 19c and the hardware requirements for different deployment setups.

> ### Important
>
> Oracle Database is only required if Web Services and Applications stores persistent data such as:
>
> - Custom Contacts
> - Custom Settings

Typically, Oracle initialization doesn't require to create a database instance, only a new dedicated account and granting required permissions is necessary. However, if a dedicated database instance for GWS is required by policy, it should be created according to the official Oracle documentation: Creating a Database with the CREATE DATABASE Statement.

To create an account which is a database user through which GWS connects to the Oracle database, the following SQL DDL-statement can be used:

```
CREATE USER gws_dev
  IDENTIFIED BY gws_password
  DEFAULT TABLESPACE gws_env
  ACCOUNT UNLOCK;
```

For more details and options, please see CREATE USER Statement.

The following SQL command grants required privileges to the created account on the previous step (refer to GRANT Statement for more information):

```
GRANT CONNECT,
  CREATE TABLE,
  CREATE VIEW,
  CREATE PROCEDURE,
  UNLIMITED TABLESPACE
  TO gws_dev;
```

Review the following tables to understand the hardware requirements of Oracle Database for different environments.

## Development environment

| Requirements | Description |
|---|---|
| Oracle version | Oracle XE |
| HA mode | none |
| Memory | At least 4 GB per Node and should be increased as database size increases to ensure optimal performance. |
| Processor | 2 cores |
| Hard Disk / Storage Disk | 10 GB |
| Networking | Localhost or internal network access. |
| Persistence | Database backup mechanism for data persistence. |

## Single data center

| Requirements | Description |
|---|---|
| Oracle version | Oracle 19c |
| HA mode | RAC |
| Memory | At least 8 GB per Node and should be increased as database size increases to ensure optimal performance. |
| Processor | Minimum 2 cores per node |
| Hard Disk / Storage Disk | 4 drives (Data, Log, Backup, TempDB), 100GB per drive |
| Networking | Optimized network configuration for intra-data center communication. |

## Two data centers

| Requirements | Description |
|---|---|
| Oracle version | Oracle 19c |
| HA Mode | DataGuard or MAA |
| Memory | At least 16 GB per Node and should be increased as database size increases to ensure optimal performance. |
| Processor | Minimum 2 cores per node |
| Hard Disk / Storage Disk | 4 drives(Data, Log, Backup, TempDB), 150 GB per drive |
| Networking | High-speed, low-latency connections between data centers |