

Madrid | 22 de mayo

Break New Ground

**ORACLE
CODE**

EXPLORE

developer.oracle.com

ORACLE

WORKSHOP

Lab 3

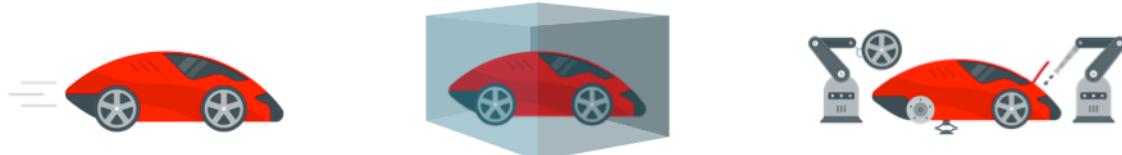
Creación de un servicio ATP con
Developer Cloud Service

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Objetivo del taller

Crear una instancia de Base de Datos ATP (Autonomous Transaction Database) para utilizar como alternativa a lo visto antes con Kubernetes y PDB Oracle Database Multitenant.

Se verán y explicarán las ventajas de este servicio ATP, que resulta ser más escalable, seguro y ejecuta más rápido que PDB sobre Virtual Machine o Baremetal. Podrá experimentar cómo un servicio autónomo facilita las áreas de desarrollo de aplicaciones Cloud Nativas y Microservicios empresariales.



Self-Driving

Automates database and infrastructure management, monitoring, tuning

Save on Human Labor

Self-Securing

Protects from both external attacks and malicious internal users

Prevent Human Error

Self-Repairing

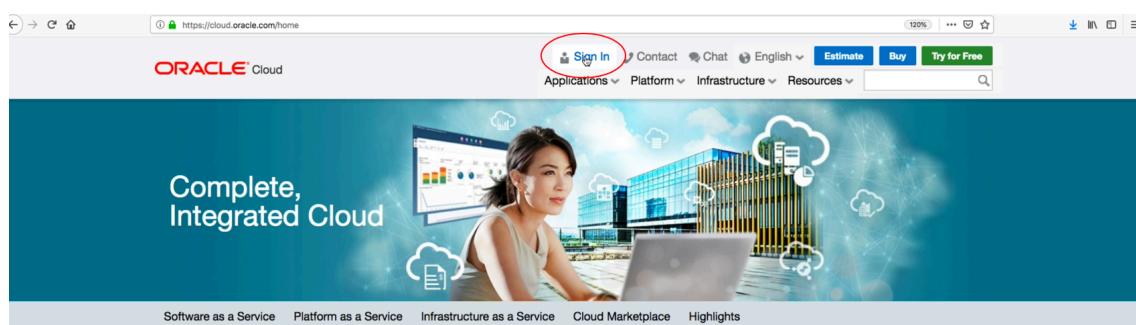
Protects from all downtime including planned maintenance

No Human Intervention

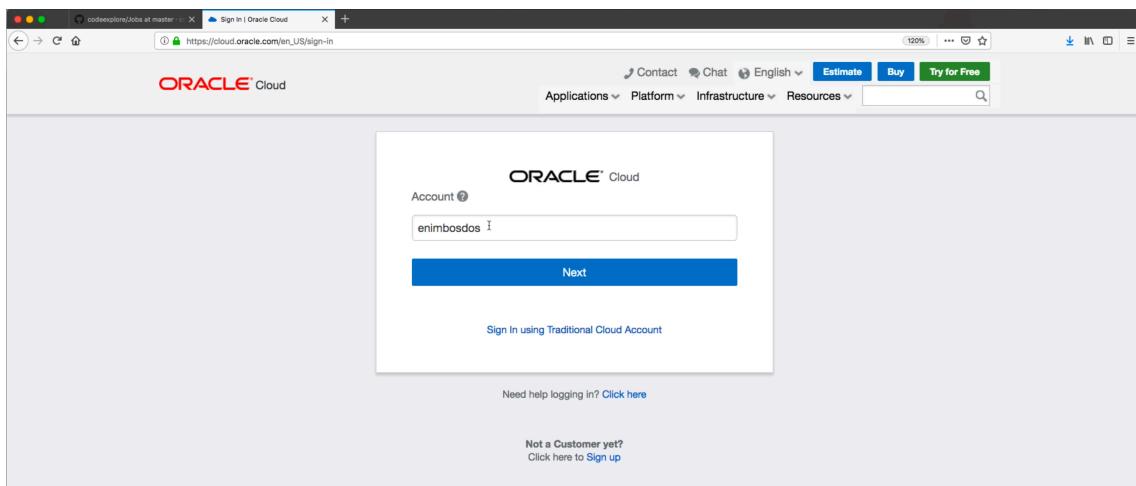
Instrucciones

Preparación del entorno

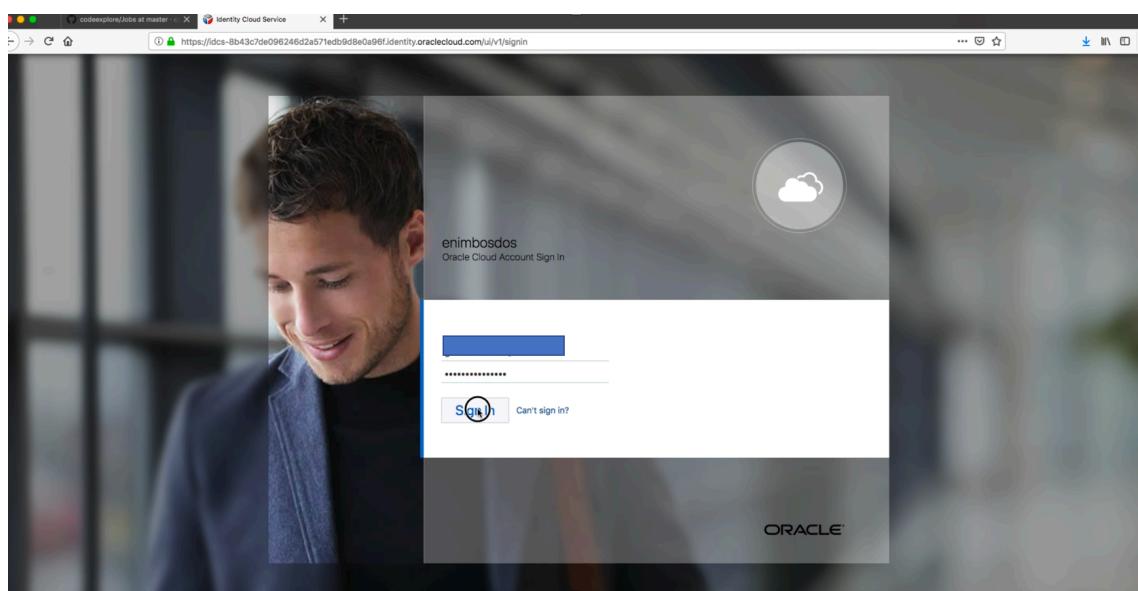
Acceder al entorno cloud del taller



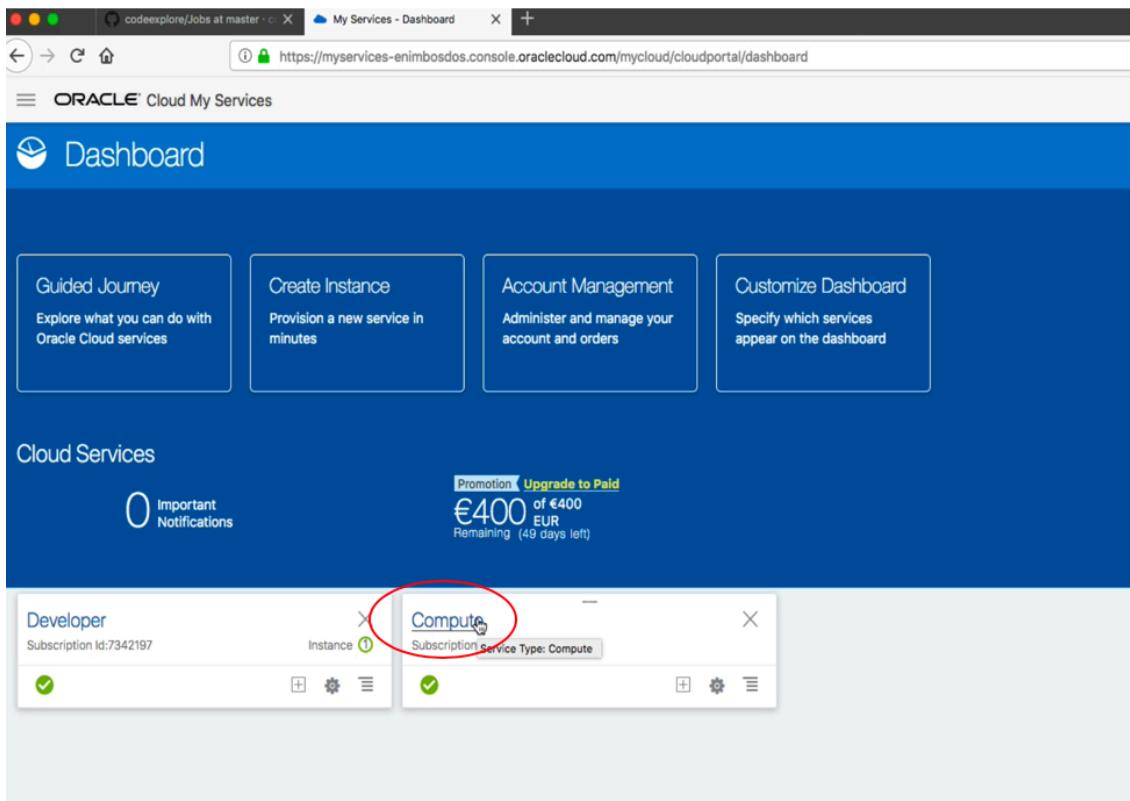
Seleccionar la cuenta proporcionada en las credenciales



Acceder con las credenciales proporcionadas



En el entorno deben aparecer dos servicios ya provisionados: Developer y Compute.
Hacer click en el servicio Compute.



La información del servicio aparecerá. Acceder a la consola del servicio tal como se muestra en la figura.

| Category | Value |
|--------------------------|---------------------------------------|
| Category | Oracle IaaS and PaaS Cloud Services |
| Data Region | EMEA (Time zone: Europe/Amsterdam) |
| Cloud Account Name | [REDACTED] |
| Cloud Account Id | cacct-9cf895596754c369480a506ce136954 |
| Subscription | Cloud Promotion |
| Convert to Pay As You Go | No |

| Plan | Value | Identity Service Id | Value |
|---------------------|------------|----------------------|------------|
| Service Start Date | 6-May-2019 | Status | Active |
| Subscription ID | 7342197 | Buyer | [REDACTED] |
| Service Instance ID | 619160369 | Promotion Start Date | 6-May-2019 |
| Customer Account | [REDACTED] | Promotion End Date | 5-Jul-2019 |
| CSI Number | 22313633 | Promotion Balance | 400.0 EUR |

Verificamos que tenemos una virtual machine creada.

The screenshot shows the Oracle Cloud Infrastructure Compute Instances page. On the left, there's a sidebar with 'Compute' selected, followed by 'Instances'. Under 'Instances', there are several options: Instance Configurations, Instance Pools, AutoScaling Configurations, Custom Images, Boot Volumes, and Boot Volume Backups. Below these are 'List Scope' and 'Filters'. 'List Scope' has 'COMPARTMENT' set to 'codeexplore' and 'enlimbosdos [root]/codeexplore'. 'Filters' has 'STATE' set to 'Any state' and 'AVAILABILITY DOMAIN' with a checked box for 'pwVM-EU-FRANKFURT-1-AD-1'. The main area displays a table titled 'Instances in codeexplore Compartment' with one row. The instance is named 'codeexplore', has an OCID of '...k6fkq', is in a 'RUNNING' state, has a 'Shape: VM.Standard2.2', and is located in 'Region: eu-frankfurt-1', 'Availability Domain: pwVM-EU-FRANKFURT-1-AD-1', and 'Fault Domain: FAULT-DOMAIN-2'. It was 'Created: Fri, 17 May 2019 19:32:32 GMT' and has a 'Maintenance Reboot: -'. A note at the bottom right says 'Displaying 1 Instances < Page 1 >'.

Verificamos que no tenemos ningún servicio ATP navegando en el menú lateral

The screenshot shows the Oracle Cloud Infrastructure main menu. The left sidebar lists various services: Core Infrastructure, Compute, Block Storage, Object Storage, File Storage, Networking, Database, Bare Metal VM, and Exadata, Autonomous Data Warehouse, Autonomous Transaction Processing (which is circled in red), Solutions, Platform and Edge, Analytics, Resource Manager, Email Delivery, Application Integration, Edge Services, Monitoring, Developer Services, Marketplace, My Services Dashboard, and Governance and Administration. The right side of the screen shows the 'Instances' page, which is currently empty.

Seleccionar “Available” como opción de filtro.

The screenshot shows the Oracle Cloud Autonomous Database list interface. At the top, it says "Autonomous Database". Below that is a "List Scope" section with a dropdown set to "codeexplore". Under "Filters", there's a "STATE" dropdown with a list of options including "Available", which is highlighted with a blue selection bar. Other options include "Available need attention", "Backup in progress", "Provisioning", "Restore in progress", "Scaling in progress", "Starting", "Stopping", "Stopped", "Terminating", "Terminated", "Unavailable", and "Updating".

Y aparecerá la lista vacía de servicios ATP.

The screenshot shows the Oracle Cloud Infrastructure dashboard with multiple tabs at the top. The "Autonomous Database" tab is active. The main content area is titled "Autonomous Databases in codeexplore Compartment". It features a "Create Autonomous Database" button and a table with columns: Name, State, Database Name, CPU Core Count, Storage (TB), Workload Type, and Created. A message below the table states, "There are no Autonomous Databases in codeexplore that match the filter criteria." At the bottom right, it says "No Autonomous Databases < Page 1 >". The left sidebar has sections for "List Scope" (set to "codeexplore") and "Filters" (with "STATE" set to "Available" and "WORKLOAD TYPE" set to "ATP").

Configuración de script de creación de servicio ATP

Acceder al servicio “Developer”

Y luego a la consola del servicio.

Y por último a la instancia del servicio.

Acceder al proyecto “codeexplore”

New Features in Developer Cloud Service - April 2019

DevSecOps, restricted Git branches, YAML builds and more - Check what's new

See more ...

Organization

Projects OCI Account Build Virtual Machines Virtual Machines Templates Properties

Search Member Favorite Owner All Projects Disk Usage 14.4 MB 200 0 25.0 GB

0 projects selected (select all, none) Sort By: Project Name

codeexplore Oracle developer Best Status: Active

100.00% Disk Usage 18.0 MB 1 MEMBER Show details >

Acceder a la carpeta de “Git”, donde están los ficheros que utilizaremos en el proceso de creación del servicio ATP.

Seleccionar la carpeta “ATP”

codeexplore ▾ | Git

codeexplore.git master

Click to add description of this repository:

ATP Update requestATP.json | guillermo.best@oracle.com

DBCS Developer Cloud Service Terraform Deploy | Developer Cloud Builder

DevOps I've moved this file | Willy Best

Jobs Add Jobs | Willy Best

KEYS dsd | Oscar

OKE Developer Cloud Service Terraform Deploy | Developer Cloud Builder

SOE Add files via upload | codeexploremadrid

VARS Update envVarsLinux.sh | guillermo.best@oracle.com

Files Logs Refs Compare Clone 7 minutes ago Yesterday at 10:46 AM +0200 Yesterday at 9:05 PM +0200 8 minutes ago Thursday at 10:33 AM +0200 Yesterday at 12:03 PM +0200 Thursday at 12:01 PM +0200 6 minutes ago + File

Los ficheros clave del ejercicio son “createATP.sh”, “oci-curl.sh” y “requestATP.json”. En las próximas instrucciones cambiaremos la configuración de los mismos para crear el servicio.

codeexplore ▾ | Git

codeexplore.git master

/ ATP

createATP.sh Update createATP.sh | guillermo.best@oracle.com Today at 12:23 AM +0200

createATP.sh.bak dsa | Oscar Yesterday at 8:41 AM +0200

oci_ap_key.pem dsd | Oscar Thursday at 10:33 AM +0200

oci-curl.sh Update oci-curl.sh | guillermo.best@oracle.com Today at 12:06 AM +0200

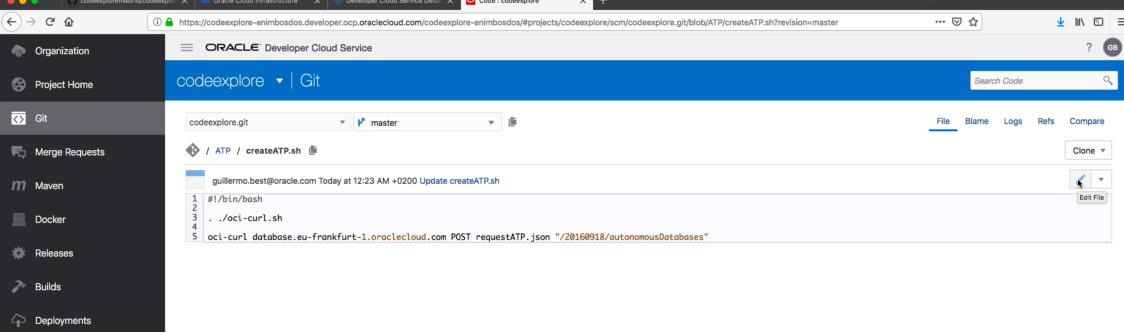
oci-curl.sh.bak sas | Oscar Thursday at 12:47 PM +0200

requestATP.json Update requestATP.json | guillermo.best@oracle.com 7 minutes ago

requestATP.json.bak dsa | Oscar Yesterday at 8:41 AM +0200

+ File

Hacer click en el fichero “createATP.sh” Como vemos, en dicho fichero se invocará al script “oci-curl.sh” No es necesario realizar ningún cambio en este fichero.

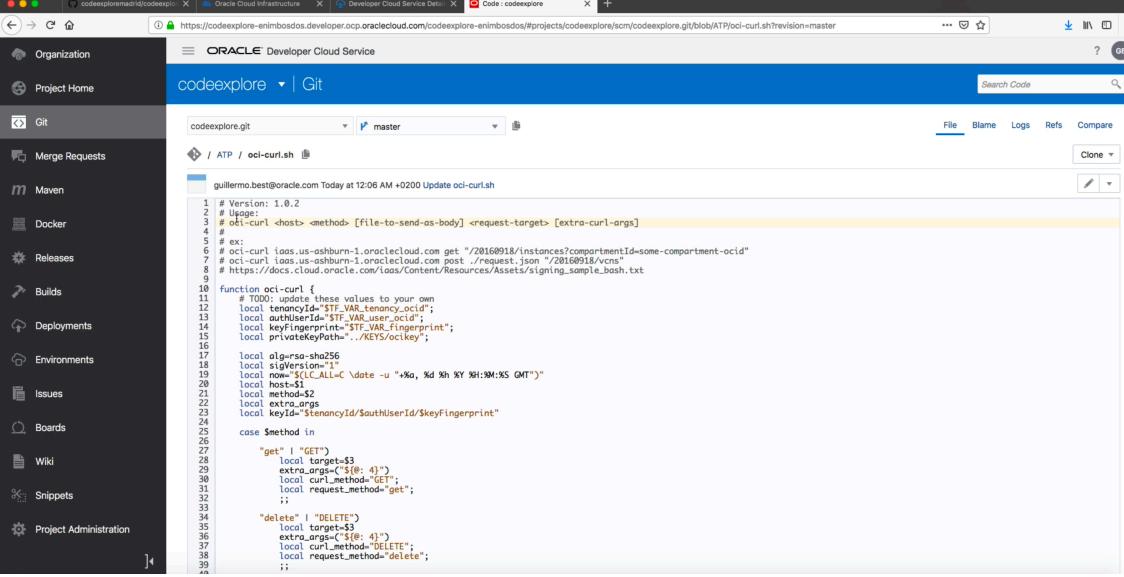


```

codeexplore.git master
guillermo.best@oracle.com Today at 12:23 AM +0200 Update createATP.sh
1 #!/bin/bash
2
3 ./oci-curl.sh
4
5 oci-curl database.eu-frankfurt-1.oraclecloud.com POST requestATP.json "/20160918/autonomousDatabases"

```

El segundo fichero es “oci-curl.sh” (será invocado por el “createATP.sh”)

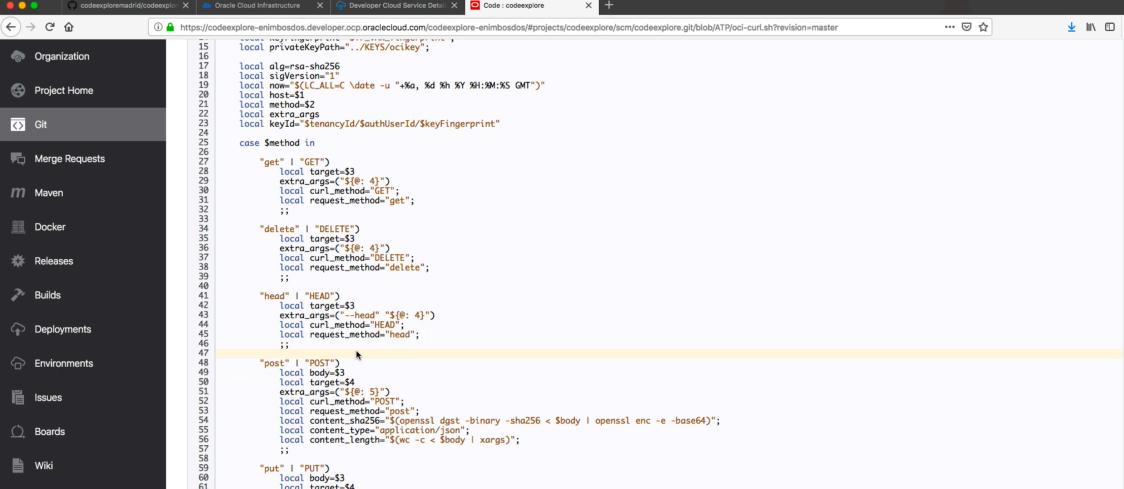


```

codeexplore.git master
guillermo.best@oracle.com Today at 12:06 AM +0200 Update oci-curl.sh
1 # Version: 1.0.2
2 # Usage:
3 # oci-curl <host> <method> [file to send as body] <request-target> [extra-curl-args]
4 #
5 # Examples:
6 # oci-curl https://us-ashburn-1.oraclecloud.com get "/20160918/instances?compartmentId=some-compartment-ocid"
7 # oci-curl https://us-ashburn-1.oraclecloud.com post ./request.json "/20160918/vcn"
8 # https://docs.cloud.oracle.com/iaas/Content/Resources/Assets/signing_sample_bash.txt
9
10 function oci-curl {
11     # TOOD: update these values to your own
12     local token=$TF_VAR_tenancy_ocid;
13     local authUserId=$TF_VAR_user_ocid;
14     local keyFingerprint=$TF_VAR_Fingerprint;
15     local privateKeyPath='./KEYS/ocikey';
16
17     local algrsa-sha256
18     local sigVersion=1
19     local now=$(LC_ALL=C date -u "+%a, %d %h %Y %H:%M:%S GMT")
20     local host=$1
21     local port=$2
22     local extraArgs
23     local keyId=$tenancyId$authUserId$keyFingerprint
24
25     case $method in
26         "get" | "GET")
27             local target=$3
28             extraArgs="--$4"
29             extraArgs+=" ${$1:4}"
30             local curlMethod="GET";
31             local requestMethod="get";
32             ;;
33
34         "delete" | "DELETE")
35             local target=$3
36             extraArgs="--$4"
37             extraArgs+=" ${$1:4}"
38             local curlMethod="DELETE";
39             local requestMethod="delete";
40             ;;
41
42         "head" | "HEAD")
43             local target=$3
44             extraArgs="--$4"
45             extraArgs+=" --head \"${$1:4}\""
46             local curlMethod="HEAD";
47             local requestMethod="head";
48             ;;
49
50         "post" | "POST")
51             local body=$3
52             local target=$4
53             extraArgs="--$5"
54             local curlMethod="POST";
55             local requestMethod="post";
56             local contentSha256=$(openssl dgst -binary -sha256 < $body | openssl enc -e -base64);
57             local contentType="application/json";
58             local contentLength=$(wc -c < "$body" | xargs);
59             ;;
60         "put" | "PUT")
61             local body=$3
62             local target=$4

```

Podemos ver en dicho fichero el método “POST” que será el invocado en el script. No es necesario realizar ningún cambio en dicho fichero tampoco.

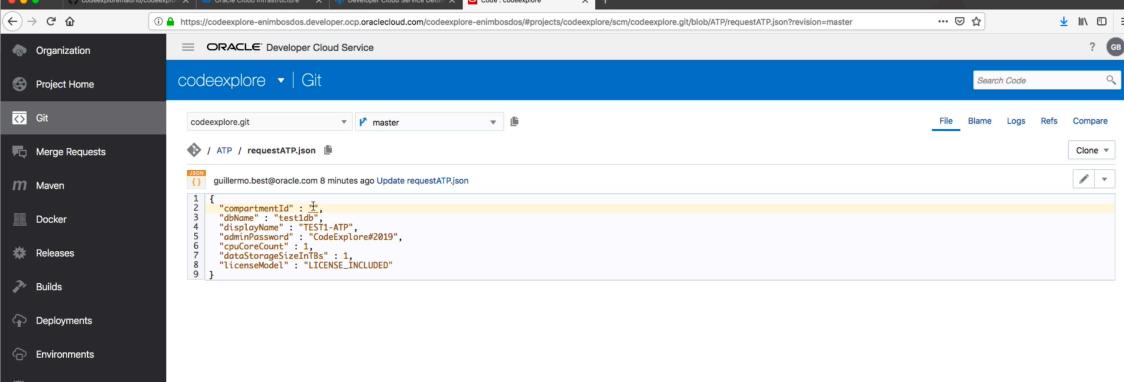


```

codeexplore.git master
guillermo.best@oracle.com Today at 12:06 AM +0200 Update oci-curl.sh
15 local privateKeyPath='./KEYS/ocikey';
16
17 local algrsa-sha256
18 local sigVersion=1
19 local now=$(LC_ALL=C date -u "+%a, %d %h %Y %H:%M:%S GMT")
20 local host=$1
21 local port=$2
22 local extraArgs
23 local keyId=$tenancyId$authUserId$keyFingerprint
24
25 case $method in
26     "get" | "GET")
27         local target=$3
28         extraArgs="--$4"
29         extraArgs+=" ${$1:4}"
30         local curlMethod="GET";
31         local requestMethod="get";
32         ;;
33
34     "delete" | "DELETE")
35         local target=$3
36         extraArgs="--$4"
37         extraArgs+=" ${$1:4}"
38         local curlMethod="DELETE";
39         local requestMethod="delete";
40         ;;
41
42     "head" | "HEAD")
43         local target=$3
44         extraArgs="--$4"
45         extraArgs+=" --head \"${$1:4}\""
46         local curlMethod="HEAD";
47         local requestMethod="head";
48         ;;
49
50     "post" | "POST")
51         local body=$3
52         local target=$4
53         extraArgs="--$5"
54         local curlMethod="POST";
55         local requestMethod="post";
56         local contentSha256=$(openssl dgst -binary -sha256 < $body | openssl enc -e -base64);
57         local contentType="application/json";
58         local contentLength=$(wc -c < "$body" | xargs);
59         ;;
60     "put" | "PUT")
61         local body=$3
62         local target=$4

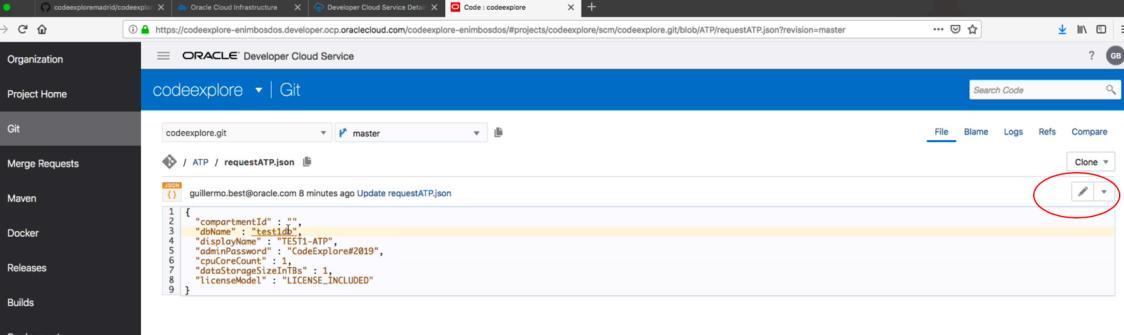
```

Hacer click en el fichero “requestATP.json”. En este fichero sí deberemos realizar algunos cambios.



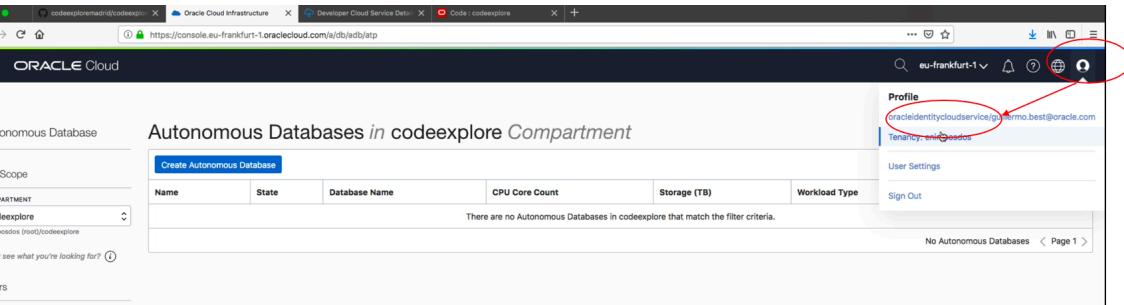
```
1 {  
2   "compartmentId": "",  
3   "dbName": "test1db",  
4   "displayName": "TEST1-ATP",  
5   "adminPassword": "CodeExplore#2019",  
6   "cpuCoreCount": 1,  
7   "dataStorageSizeInTBs": 1,  
8   "licenseModel": "LICENSE_INCLUDED"  
9 }
```

Seleccionar el icono para editar el fichero. El objetivo es incluir el parámetro “compartmentId”



```
1 {  
2   "compartmentId": "",  
3   "dbName": "test1db",  
4   "displayName": "TEST1-ATP",  
5   "adminPassword": "CodeExplore#2019",  
6   "cpuCoreCount": 1,  
7   "dataStorageSizeInTBs": 1,  
8   "licenseModel": "LICENSE_INCLUDED"  
9 }
```

Para acceder a dicho parámetro debemos navegar a la pantalla de configuración del servicio.



Autonomous Databases in codeexplore Compartiment

| Name | State | Database Name | CPU Core Count | Storage (TB) | Workload Type |
|--|-------|---------------|----------------|--------------|---------------|
| There are no Autonomous Databases in codeexplore that match the filter criteria. | | | | | |

No Autonomous Databases < Page 1 >

Seleccionar el link de “Identity”

This screenshot shows the Oracle Cloud Identity User Details page. At the top left, there is a breadcrumb navigation: Identity > Users > User Details. A red circle highlights the first part of the breadcrumb. The user's profile picture is a green circle with a white 'O'. Below it, the status is listed as ACTIVE. The user's name is oracleidentitycloudservice/..., and the description is guillermo.best@oracle.com. There are two buttons: 'Edit User Capabilities' and 'Apply Tag(s)'. The 'User Information' tab is selected, showing the OCID (oci01:user:...), creation date (Mon, 06 May 2019 09:53:18 GMT), identity provider (OracleIdentityCloudService), and email (Email: ...). The 'Status' is Active and 'Federated' is Yes. The 'Capabilities' section indicates Local password: No, API keys: Yes, Auth tokens: Yes, SMTP credentials: Yes, and Customer secret keys: Yes.

Ir al enlace “Compartments” y seleccionar el compartiment “codeexplore”

This screenshot shows the Oracle Cloud Identity Compartments page. On the left, there is a sidebar with options: Users, Groups, Dynamic Groups, Policies, Compartments (which is highlighted with a red circle), Federation, and Authentication Settings. The main area is titled 'Compartments' and shows a table with three rows:

| Name | Status | OCID | Authorized | Subcompartments | Created |
|----------------------------|--------|-----------|------------|-----------------|-------------------------------|
| animbedos (root) | Active | ...js2rca | No | 2 | - |
| codeexplore | Active | ...pbdbba | Yes | 0 | Fri, 17 May 2019 19:21:47 GMT |
| ManagedCompartimentForPaaS | Active | ...xsbrda | Yes | 0 | Mon, 06 May 2019 09:58:42 GMT |

At the bottom right of the table, it says 'Showing 3 item(s) < Page 1 >'. A red circle highlights the 'codeexplore' row.

Para obtener el id del compartment clickar en “Show” y luego “Copy”

This screenshot shows the Oracle Cloud Identity Compartment Details page for the 'codeexplore' compartment. The sidebar on the left shows 'Identity > Compartments > Compartment Details'. The main area has a large green circular icon with a white 'C'. The compartment name is 'codeexplore'. Below it, there are buttons: 'Rename Compartment', 'Edit Description', 'Add Tag(s)', and 'Delete'. The 'Compartment Information' tab is selected, showing the Parent Compartment (animbedos (root)), OCID (oci01:compartment.oc1.aaaaaaaesi/swly2uhgvrshqzivduye5vlo24i2b14qjtb4v5h3p5k6ba), Authorization (Yes), and Creation date (Fri, 17 May 2019 19:21:47 GMT). A red circle highlights the 'Copy' button next to the OCID.

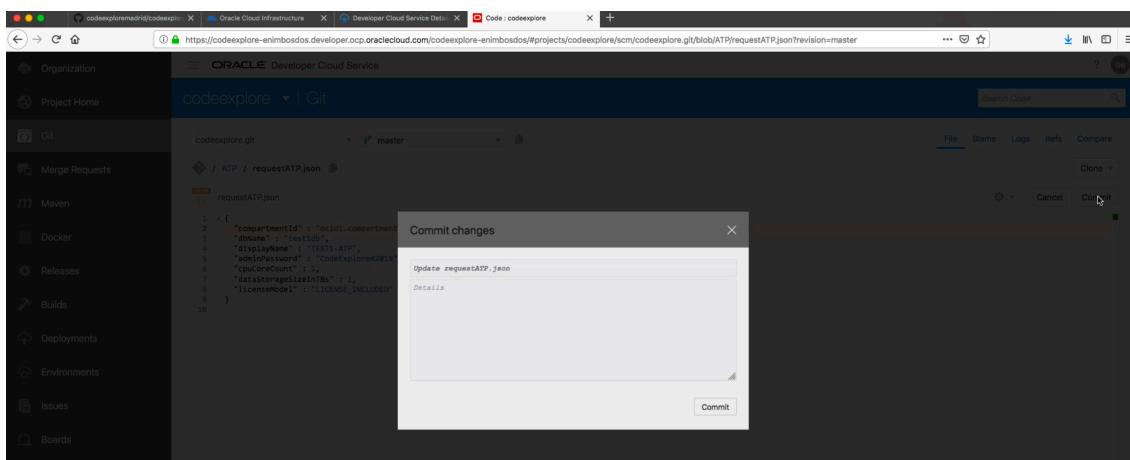
Pegar en el script JSON tal como se muestra en la figura. Después clickar en “Commit”
IMPORTANTE: este identificador lo necesitaremos posteriormente, por lo que se recomienda salvarlo en un fichero.

```

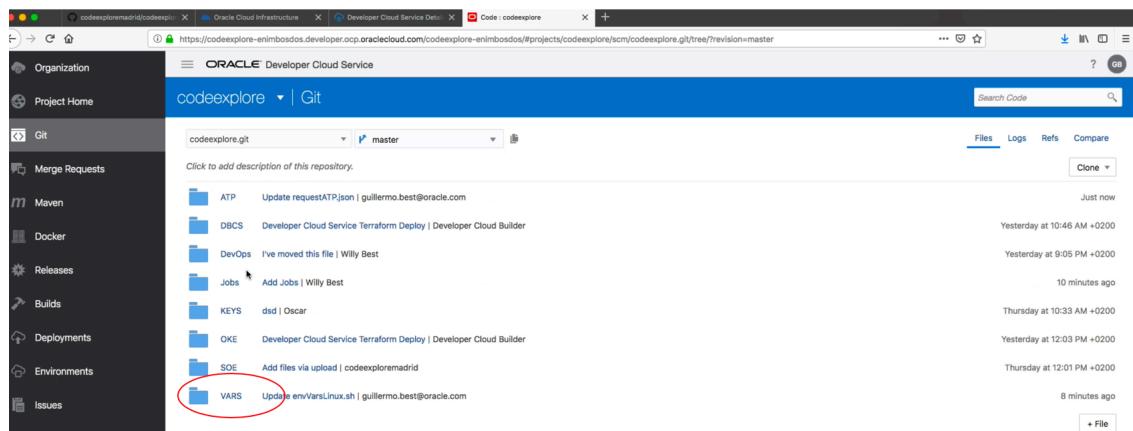
1  {
2     "compartmentId": "ocid1.compartment.oc1..aaaaaaaaejlswiy2uhogvrvshqzivduye5vlo2412j6t4qjtbd4v5h3p5k6ba",
3     "displayName": "TEST1-ATP",
4     "adminPassword": "CodeExplore2019",
5     "cpuCoreCount": 1,
6     "dataStorageSizeInTBs": 1,
7     "licenseModel": "LICENSE_INCLUDED"
8   }
18

```

Ejecutar el commit.



El siguiente paso consiste en realizar algunas acciones de configuración sobre las variables de entorno. Seleccionar en la pestaña de Git, la carpeta “VARS”



Editar el fichero “envVarsLinux.sh” **IMPORTANTE: el que comienza por minúscula.**

The screenshot shows the Oracle Developer Cloud Service interface. On the left, there's a sidebar with options like Organization, Project Home, Git, Merge Requests, Maven, Docker, Releases, and Builds. The main area is titled 'codeexplore' and shows a 'Git' repository. A specific file, 'envVarsLinux.sh', is listed with several commits. The first commit, by 'guillermo.best@oracle.com' at 8 minutes ago, has a red circle around it. The commit message is 'Update envVarsLinux.sh'.

Seleccionar la acción de editar.

This screenshot shows the same interface as above, but now the 'envVarsLinux.sh' file is open in the code editor. A red circle highlights the 'Edit' button in the top right corner of the editor window.

Introducir en primer lugar el identificador del compartimento que conseguimos anteriormente.

In this screenshot, the 'envVarsLinux.sh' file is open in the code editor again. A red circle highlights the 'Commit' button in the top right corner. The code in the editor includes the compartment OCID: 'export TF_VAR_compartment_ocid="oc1.aaaaaaaaaaaae1lswiy2uhogvrshqzivduye5vl02412j6t4qjtba5h3psk6ba"'.

A continuación introduciremos el “user_ocid”. Para acceder al mismo, debemos navegar a la pantalla de variables de entorno.

This screenshot shows the Oracle Cloud Identity service interface. It displays a user profile with the OCID 'oracleidentitycloudservice/guillermo.best@oracle.com'. A red circle highlights this profile section.

Navegar a Identity > Users > User Details y copiar el parámetro “Show > Copy” tal como se muestra en pantalla.

This user is created through IDCS federation. Manage [user profile details through IDCS federation here.](#)

oracleidentitycloudservice/guillermo.best@oracle.com

Description: guillermo.best@oracle.com

[Edit User Capabilities](#) [Apply Tag\(s\)](#)

User Information [Tags](#)

OCID: ocid1.user.oc1..aaaaaaaa7dpdaui7q4oq3bfrojxkf6rldwv4xu2gkmn14344h7yydjo6ima [Copy](#) (Red circle)

Status: Active
Federated: Yes

Created: Mon, 06 May 2019 09:53:18 GMT
Identity Provider: OracleIdentityCloudService

Email:

Capabilities

Local password: No
API keys: Yes
Auth tokens: Yes

SMTP credentials: Yes
Customer secret keys: Yes

Pegamos el dato en el fichero de configuración.

codeexplore / VARS / envVarsLinux.sh

```

1 export VARIABLES_DE_ENTORNO PARA ESTE NIVEL DE CODIGO EXPLORE
2 export TF_VAR_user_ocid="ocid1.user.oc1..aaaaaaaa7dpdaui7q4oq3bfrojxkf6rldwv4xu2gkmn14344h7yydjo6ima"
3 export TF_VAR_compartment_ocid="ocid1.compartment-aaaaaaa1-aaaa-aaaaaa1-aaaa-1a04gnsheq4ivdy5r7o2et210c4115b4v5h3p5k6ba"
4 export TF_VAR_compartment_name="codeexplore"
5 export TF_VAR_fingerprint="1"
6 export TF_VAR_tenant_id="ocid1.tenancy-frankfurt-1"
7 export TF_VAR_tenant_name="frankfurt-1"
8 export TF_VAR_tenancy=""
9

```

A continuación conseguiremos la variable “fingerprint” que puede conseguirse en la pantalla de detalles de usuario.

This user is created through IDCS federation. Manage [user profile details through IDCS federation here.](#)

oracleidentitycloudservice/guillermo.best@oracle.com

Description: guillermo.best@oracle.com

[Edit User Capabilities](#) [Apply Tag\(s\)](#)

User Information [Tags](#)

OCID: ocid1.user.oc1..aaaaaaaa7dpdaui7q4oq3bfrojxkf6rldwv4xu2gkmn14344h7yydjo6ima [Copy](#)

Status: Active
Federated: Yes

Created: Mon, 06 May 2019 09:53:18 GMT
Identity Provider: OracleIdentityCloudService

Email:

Capabilities

Local password: No
API keys: Yes
Auth tokens: Yes

En dicha pantalla podemos conseguir el parámetro “fingerprint”

Pegar el parámetro en el fichero.

```

1 ##### VARIABLES DE ENTORNO PARA TERRAFORM ENTORNO CODEEXPLORE #####
2 export TF_VAR_user_ocid="ocid1.user.oc1..aaaaaaaa7dpdau7qoog3frqaxf6rlidwy4xu2gkmm14344h7vydjo6ima"
3 export TF_VAR_compartment_ocid="ocid1.compartment.oc1..aaaaaaaa1s1wylyzuhgvrsqzivduye5vl02412j6t4qjtba4v5h3p5k6ba"
4 export TF_VAR_region="eu-frankfurt-1"
5 export TF_VAR_Fingerprint="77:36:b2:3b:6e:3b:45:0e:fa:e7:9c:ea:3d:0e:50:10"
6 export TF_VAR_tenancy="1"
7 export TF_VAR_tenancy_ocid="ocid1.oc1..aaaaaaaa7dpdau7qoog3frqaxf6rlidwy4xu2gkmm14344h7vydjo6ima"
8 export TF_VAR_tenant_id="ocid1.tenancy.1"
9

```

Los dos últimos parámetros (“tenancy” y “tenancy_ocid”) los obtendremos de la pantalla de configuración tal como se muestra en la imagen.

Obtener los datos tal como se muestra en la figura.

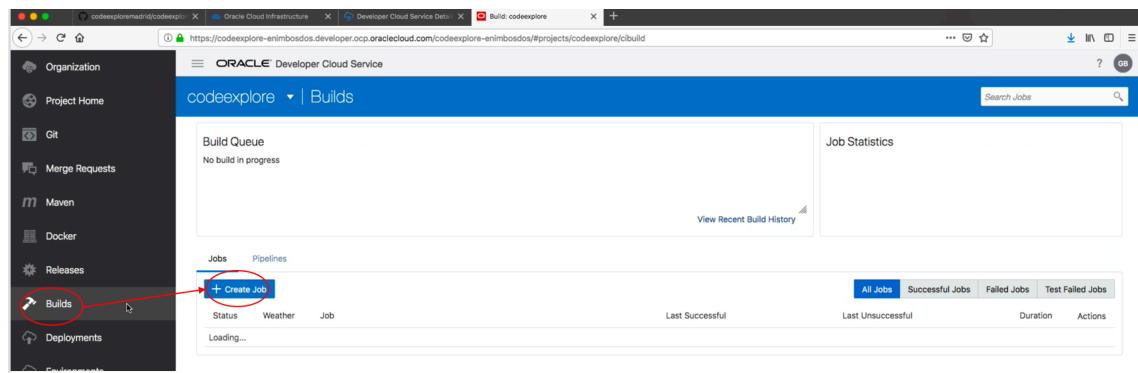
Incluir ambos parámetros y ejecutar “Commit”

Por último ir a la carpeta “Jobs”

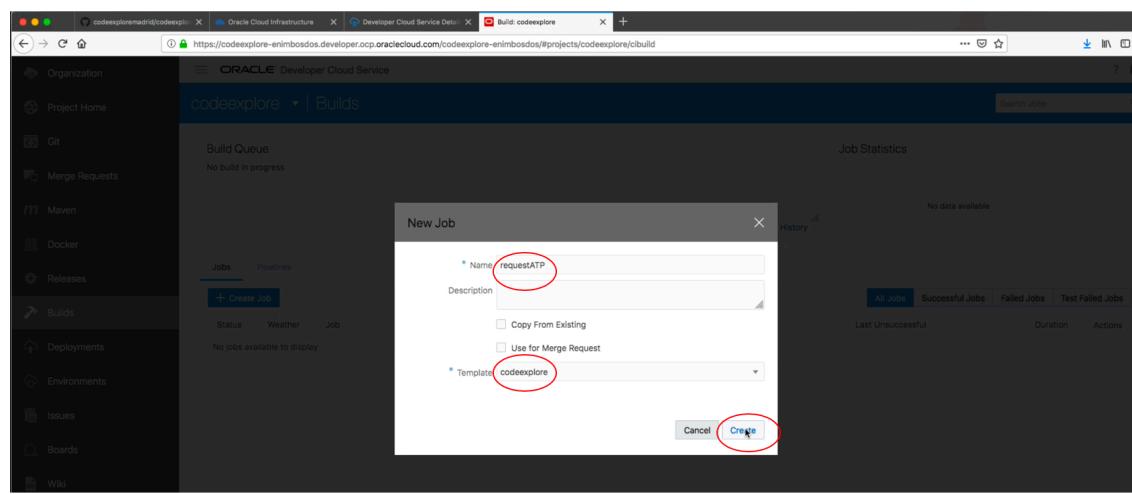
Seleccionar el job “Request ATP”

Vamos a crear un script Unix tomando como base la información de dicho Job.
Seleccionar todas las líneas del fichero.

Ir a la carpeta “Builds” y creamos un “Job”



Introducir los parámetros tal como se muestra en la figura y pulsar “Create”



Configurar como opción de obtención de información el repositorio “Git”

The screenshot shows the Oracle Developer Cloud Service interface. The left sidebar has a dark theme with various project management options like Organization, Project Home, Git, Merge Requests, Maven, Docker, Releases, Builds, Deployments, Environments, Issues, Boards, and Wiki. The 'Builds' option is highlighted. The main area is titled 'codeexplore | Builds' and shows a 'Job Configuration' section. Under 'Job Configuration', the 'Git' tab is selected. A dropdown menu is open with two options: 'Add Git' and 'Git'. The 'Git' option is circled in red.

Seleccionar el repositorio “codeexplore.git” y pulsar “Save”

The screenshot shows the same interface as the previous one, but the 'Git' dropdown now shows 'codeexplore.git' as the selected repository. The 'Save' button at the top right is circled in red.

Es necesario añadir un paso adicional de tipo “Unix shell”

The screenshot shows the 'Job Configuration' page again. This time, the 'Steps' tab is selected in the navigation bar. A context menu is open, showing a list of step types: Unix Shell, Ant, Wercker, Maven, Gradle, Node.js, SQLCI, Oracle Deployment, PSMcI, OCICl, Docker, Fn, and others. The 'Unix Shell' option is circled in red.

Introducir las líneas que copiamos previamente y pulsar “Save”

The screenshot shows the 'Configure Steps' section of a build job named 'requestATP'. The 'Steps' tab is selected. A red arrow points from the 'Save' button at the top right to a circled area containing a script snippet. The script is as follows:

```

Script:
1 chmod +x VARS/envVarsLinux.sh
2 . VARS/envVarsLinux.sh
3 cd ATP
4 chmod +x createATP.sh
5 ./createATP.sh

```

Below the script, there is a note: "Command logging options: (-x) Expand variables in commands, don't show I/O redirection. (-v) Show commands exactly as written."

Ejecución del proceso de construcción del servicio ATP

Lanzar el proceso clickando en “Build Now”

The screenshot shows the 'Job Details' page for the 'requestATP' build. The 'Build Now' button is highlighted with a red circle and a red arrow pointing to it. Below the button, there is a 'Build Trend' section which displays "No data available".

Puede consultarse el log de creación durante su ejecución.

The screenshot shows the 'Job Details' page for the 'requestATP' build. The 'Build Log' button in the toolbar is circled in red. The 'Build Trend' section shows "Loading...".

```

[2019-05-17 23:43:32] * cd /u01/app/oracle/product/12.2.0/db_1/dbs; ./runInstaller -silent -responseFile /u01/app/oracle/product/12.2.0/db_1/dbs/response.xml &> /dev/null
[2019-05-17 23:43:32] * chmod +x VAR$ServerLinux.sh
[2019-05-17 23:43:32] * ./VAR$ServerLinux.sh
[2019-05-17 23:43:32] ++ export TF_VAR_ocid=ocid1.user.oc1..aaaaaaaa7dpda7lq4cq2frkaxf6rwvw4x2gkmln4344h7yyvjdj6ima
[2019-05-17 23:43:32] ++ TF_VAR_user_ocid=ocid1.user.oc1..aaaaaaaa7dpda7lq4cq2frkaxf6rwvw4x2gkmln4344h7yyvjdj6ima
[2019-05-17 23:43:32] ++ export TF_VAR_compartment_ocid=ocid1.compartment.oc1..aaaaaaaaaejswily2uhgvrshqvduyev5lo242j64qjt4v5h3p5k6ba
[2019-05-17 23:43:32] ++ TF_VAR_compartment_ocid=ocid1.compartment.oc1..aaaaaaaaaejswily2uhgvrshqvduyev5lo242j64qjt4v5h3p5k6ba
[2019-05-17 23:43:32] ++ export TF_VAR_compartment_name=codeexplore
[2019-05-17 23:43:32] ++ export TF_VAR_fingerprints="73:6b:3b:6e:3b:45:0e:a7:9c:ea:3d:0e:50:10"
[2019-05-17 23:43:32] ++ export TF_VAR_region=eu-frankfurt-1
[2019-05-17 23:43:32] ++ export TF_VAR_tenancy=eniimbosdos
[2019-05-17 23:43:32] ++ export TF_VAR_tenancy_ocid=ocid1.tenancy.oc1..aaaaaaaaaf5kjgrzztb7v4zonz7kvynba3zooyw3lzgta57dlsjs2rca
[2019-05-17 23:43:32] ++ export TF_VAR_tenancy_ocid=ocid1.tenancy.oc1..aaaaaaaaaf5kjgrzztb7v4zonz7kvynba3zooyw3lzgta57dlsjs2rca
[2019-05-17 23:43:32] * cd /u01/app/oracle/product/12.2.0/db_1/dbs; ./createATP.sh
[2019-05-17 23:43:32] * chmod +x createATP.sh
[2019-05-17 23:43:33] {
[2019-05-17 23:43:33]   "autonomousContainerDatabaseStatus": null,
[2019-05-17 23:43:33]   "autonomousContainerDatabaseId": null,
[2019-05-17 23:43:33]   "compartmentId": "ocid1.compartment.oc1..aaaaaaaaaejswily2uhgvrshqvduyev5lo242j64qjt4v5h3p5k6ba",
[2019-05-17 23:43:33]   "connectionString": null,
[2019-05-17 23:43:33]   "cpuCoreCount": 1,
[2019-05-17 23:43:33]   "dataStorageSizeInTB": 1,
[2019-05-17 23:43:33]   "dbWorkload": "OLTP",
[2019-05-17 23:43:33]   "dbVersion": null,
[2019-05-17 23:43:33]   "dbWorkload": "OLTP",
[2019-05-17 23:43:33]   "definedTags": {},
[2019-05-17 23:43:33]   "freeformTags": {},
[2019-05-17 23:43:33]   "id": "ocid1.autonomousContainerDatabase.oc1.eu-frankfurt-1.abtheljta47lfxpawpypbm3fkq3qyeladix4vtbwzdrbgcz3ct6e2pq",
[2019-05-17 23:43:33]   "isAutonomous": true,
[2019-05-17 23:43:33]   "isDelegated": false,
[2019-05-17 23:43:33]   "isPreview": false,
[2019-05-17 23:43:33]   "isRenewable": "LICENSE_INCLUDED",
[2019-05-17 23:43:33]   "lifecycleState": "PROVISIONING",
[2019-05-17 23:43:33]   "serviceConsoleUrl": null,
[2019-05-17 23:43:33]   "sqlWebDeveloperUiUrl": null,
[2019-05-17 23:43:33]   "timeCreated": "2019-05-17T23:43:32.954Z",
[2019-05-17 23:43:33]   "usedDataStorageSizeInTBs": null,
[2019-05-17 23:43:33]   "whitelistedIps": null
[2019-05-17 23:43:33] }
[2019-05-17 23:43:33] END shell script execution
Slave log size 3.9 KB (3,896)

```

Puede comprobarse el estado del proceso navegando al catálogo de servicios.

Esta pantalla nos informará del estado del servicio.

| Name | State | Database Name | CPU Core Count | Storage (TB) | Workload Type | Created |
|-----------|-----------------|---------------|----------------|--------------|------------------------|-------------------------------|
| TEST1-ATP | Provisioning... | test1db | 1 | 1 | Transaction Processing | Fri, 17 May 2019 23:43:32 GMT |
| TEST3-ATP | Terminated | test3db | 1 | 1 | Transaction Processing | Fri, 17 May 2019 22:47:43 GMT |

Finalizado el proceso, el servicio estará listo para ser utilizado.

The screenshot shows the Oracle Cloud Infrastructure Autonomous Database service. The main title is "Autonomous Databases in codeexplore Compartiment". Below it is a table with columns: Name, State, Database Name, CPU Core Count, Storage (TB), Workload Type, and Created. The first row, "TEST1-ATP", has a green dot next to "Available" and is circled in red. The second row, "TEST3-ATP", has a grey dot next to "Terminated". The table also includes a "View Details" button and a "More" menu icon.

Utilización del servicio

Accedemos en primer lugar a la consola del servicio.

This screenshot is similar to the previous one, showing the Autonomous Database list. A context menu is open over the "TEST1-ATP" row. The menu items include "View Details", "SeeScope Console" (which is circled in red), "Create Clone", "Copy OCID", "Apply Tag(s)", and "Terminate".

Podemos monitorizar la actividad del servicio.

This screenshot shows the Autonomous Transaction Processing service. The left sidebar has tabs for "Overview", "Activity" (which is circled in red), and "Administration". The main area is titled "Monitor" and contains several charts: "Database Activity" (a line chart showing activity levels from 0.0 to 1.0 over time, with a sharp peak around 11:15 PM on 5/17/19), "CPU Utilization (%)", "Running Statements", and "Queued Statements". The "CPU Utilization" chart indicates "No data to display".

En la pestaña de administración tendremos una serie de opciones disponibles como se muestra en la figura. En nuestro caso crearemos un usuario con la opción “Manage Oracle ML Users”

Autonomous Transaction Processing

Overview

Activity

Administration

Manage Oracle ML Users

Download Client Credentials (Wallet)

Set Resource Management Rules

Set Administrator Password

Download Oracle Instant Client

Send Feedback to Oracle

Seleccionamos la opción “Create”

Users

| User Name | Full Name | Role | Email | Created On | Status |
|-----------|-----------|----------------------|-------|------------------|--------|
| ADMIN | | System Administrator | | 11/25/18 4:42 PM | Open |

Introducimos las credenciales y seleccionamos la opción “Create”

Create User

Username: yomismo

First Name:

Last Name:

Email Address: [REDACTED]

Password: [REDACTED]

Confirm Password: [REDACTED]

Create Cancel

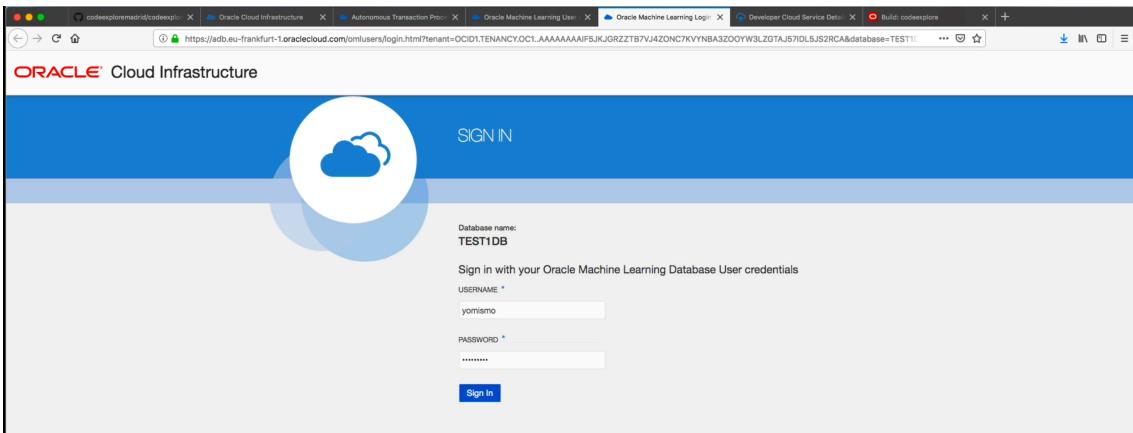
Cuando el proceso de creación ha finalizado, seleccionamos el icono de “Home” para logarnos con las credenciales del nuevo usuario.

User Created

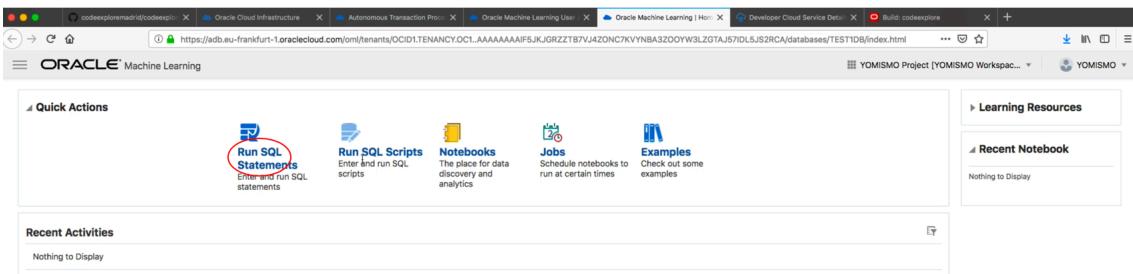
Users

| User Name | Full Name | Role | Email | Created On | Status |
|-----------|-----------|----------------------|---------------------------|------------------|--------|
| ADMIN | | System Administrator | | 11/25/18 4:42 PM | Open |
| YOMISMO | | Developer | guillermo.best@oracle.com | 5/17/19 11:51 PM | Open |

Hacer login con el nuevo usuario.



En nuestro espacio de trabajo aparecerán las herramientas a nuestra disposición.
Vamos a realizar la prueba de lanzar una sentencia SQL.



Podremos lanzar cualquier sentencia sobre la base de datos utilizando el notebook.

