

Madrid | 22 de mayo

Break New Ground

**ORACLE
CODE**

EXPLORE

developer.oracle.com

ORACLE

WORKSHOP

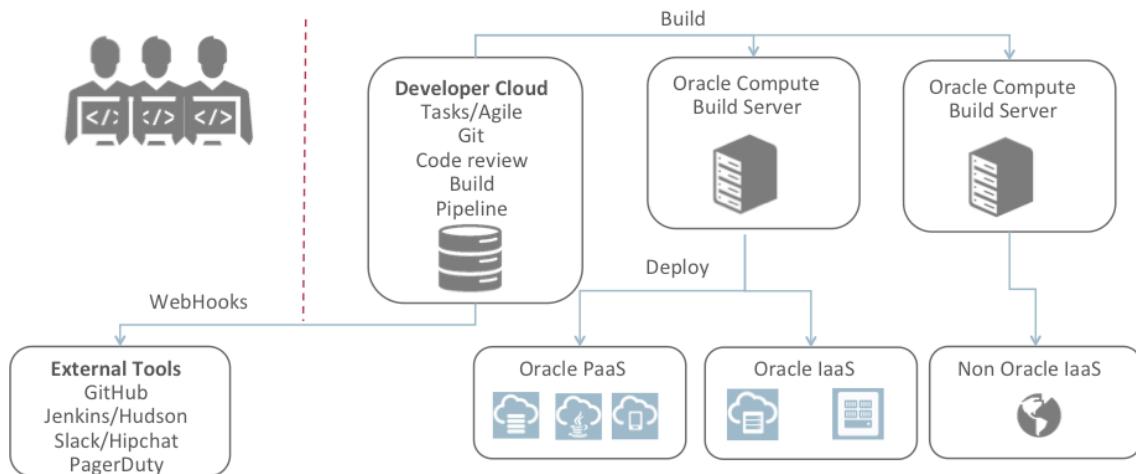
Lab 0

Creación de servicio Developer Cloud
Service

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Objetivo del taller

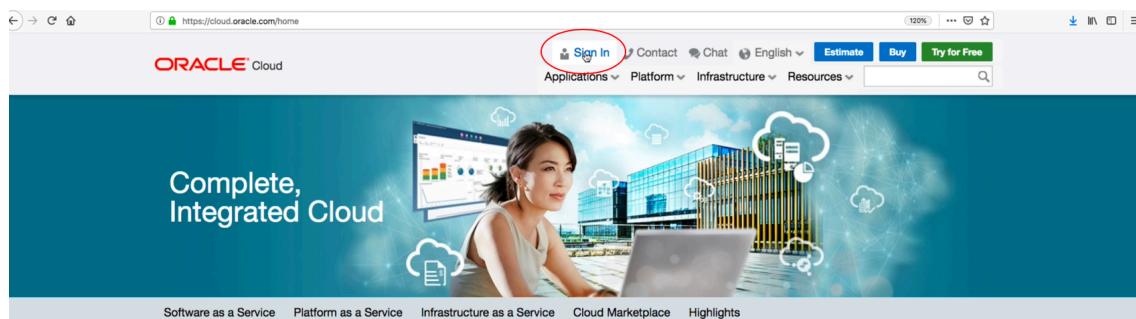
El objetivo de este taller es desplegar un entorno de desarrollo colaborativo en Oracle Cloud para facilitar el desarrollo de micro-servicios Docker en Kubernetes con persistencia en Bases de Datos Oracle Multitenant y Autónomas.



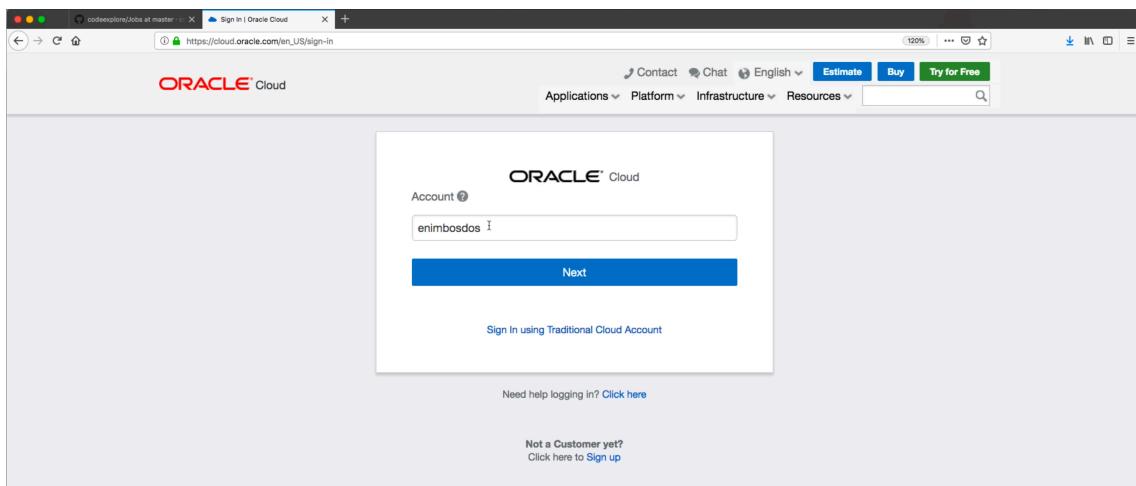
Instrucciones

Preparación del entorno y creación del servicio Developer CS

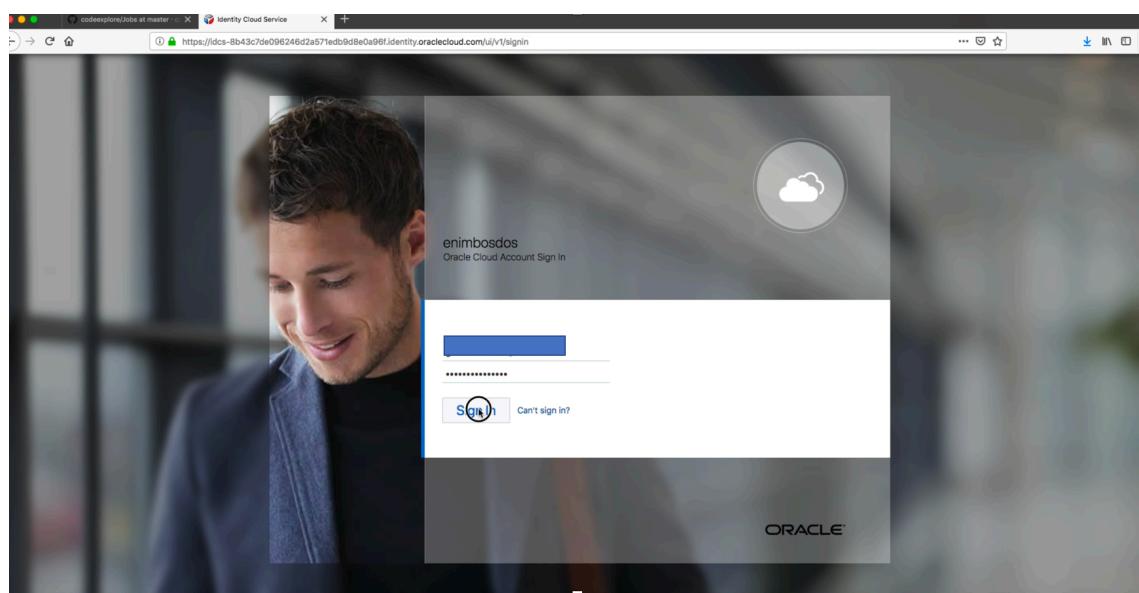
Acceder al entorno cloud del taller



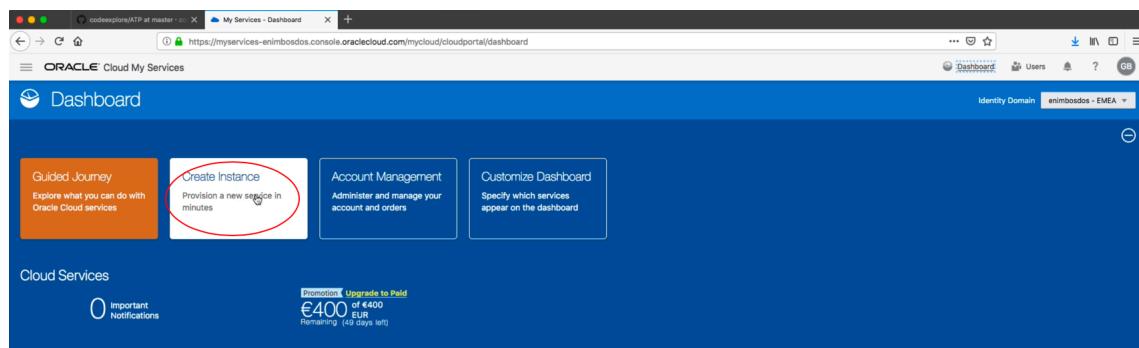
Seleccionar la cuenta proporcionada en las credenciales



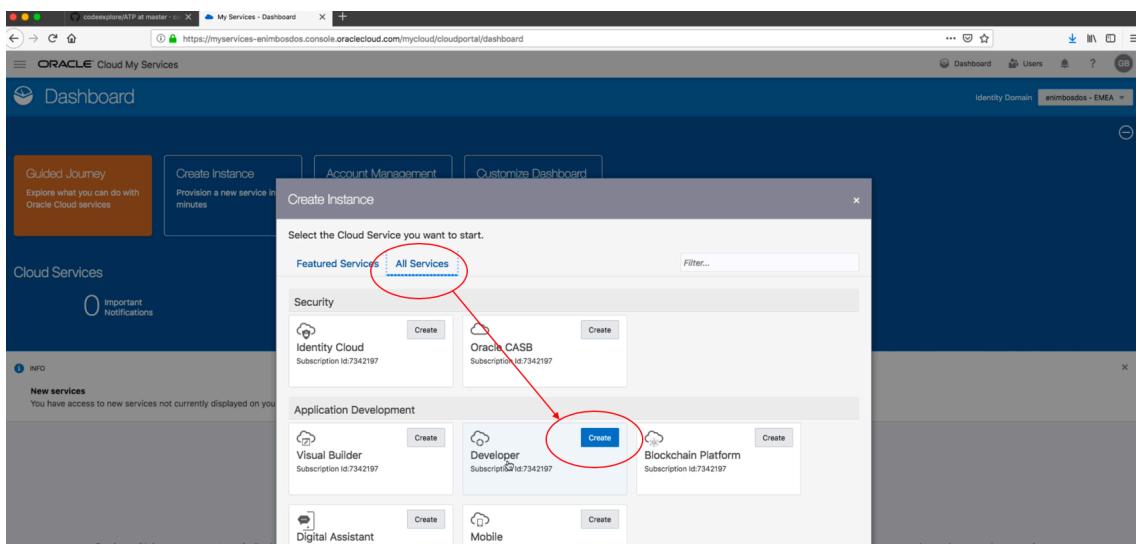
Acceder con las credenciales proporcionadas



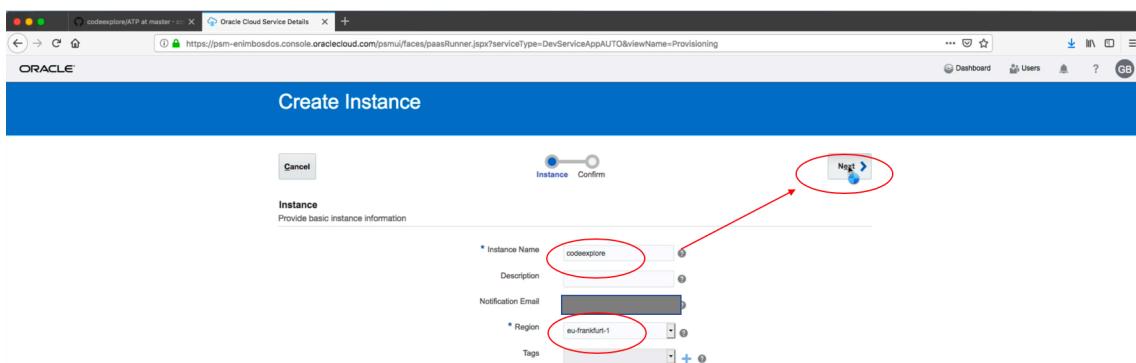
Aparecerá el dashboard general. Nuestro objetivo es crear una nueva instancia de servicio.



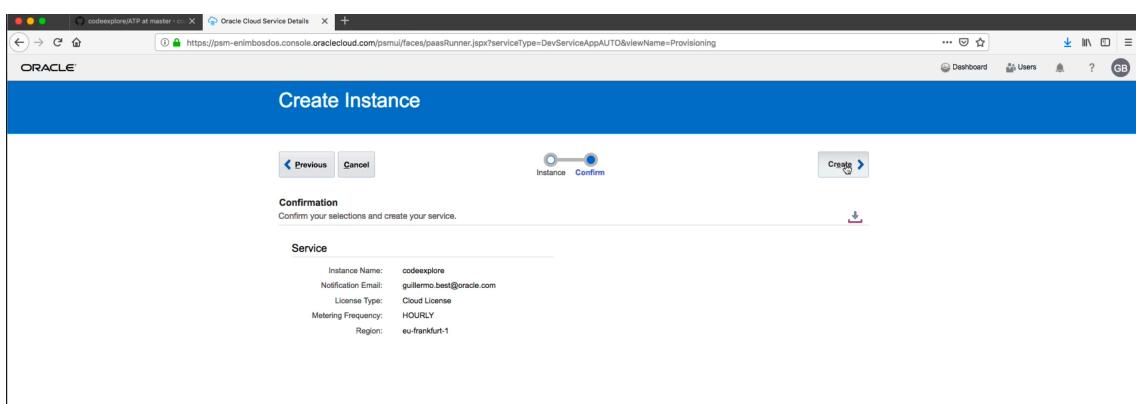
Seleccionar “All Services” y el tipo de servicio “Developer”



Indicar el nombre del servicio “codeexplore”, la región (Frankfurt) y clickar en “Next”



Confirmar que los datos son correctos y clickar “Create”



Podemos observar el proceso de creación del servicio.

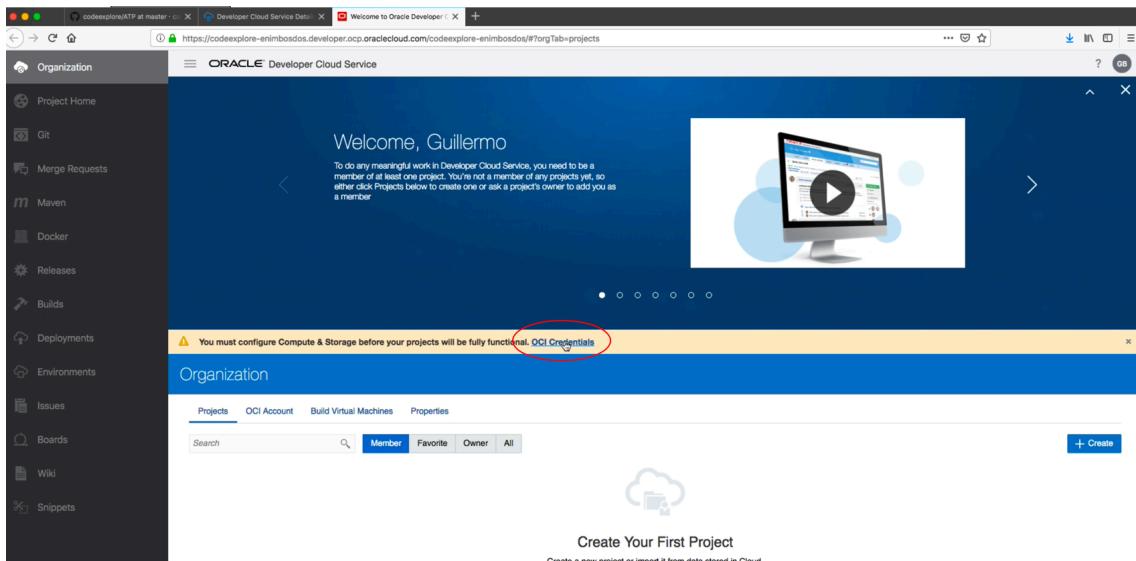
The screenshot shows the Oracle Cloud My Services Developer Cloud Service Instances page. A service instance named "codeexplore" is listed, showing a status of "Creating service ...". The "Status" field indicates "Create In Progress". The "Submitted On" date is May 17, 2019, at 7:12:48 PM UTC. A "Create Instance" button is visible on the right. Below the main list, there is a section titled "Instance Create and Delete History" with filters for "Last 24 Hours" and "Show only failed attempts".

Cuando el proceso de creación finalice, tendremos acceso a la consola.

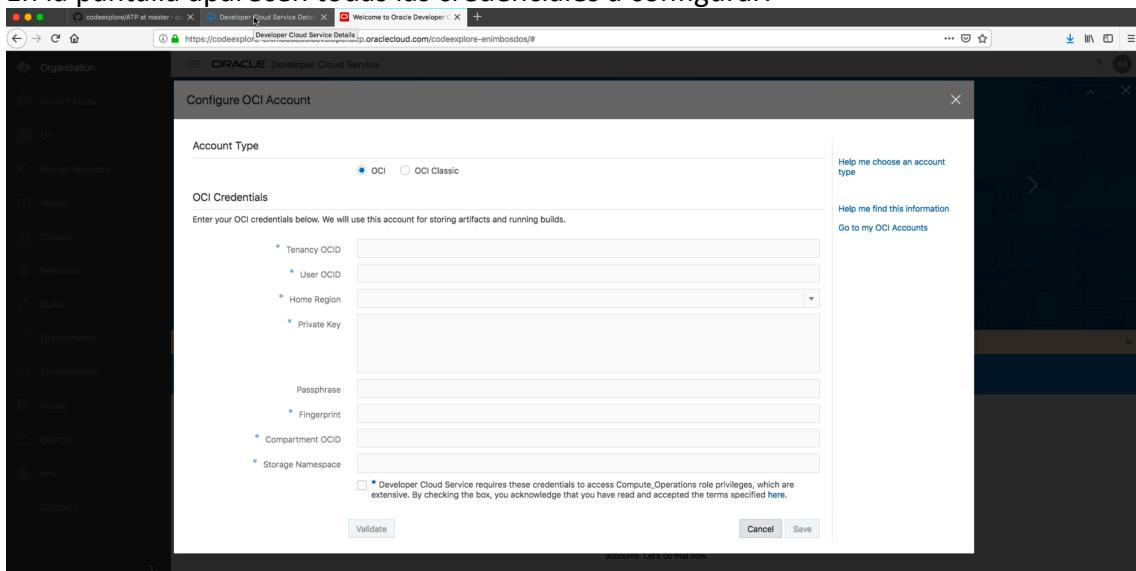
The screenshot shows the same Oracle Cloud My Services Developer Cloud Service Instances page after the creation process has completed. The service instance "codeexplore" now has a green checkmark icon next to it, indicating success. The status field shows "Create Succeeded On: May 17, 2019 7:12:48 PM UTC". The "Access Service Instance" link in the context menu is circled in red. Other options in the menu include "Add Tags" and "Delete".

Configuración del servicio

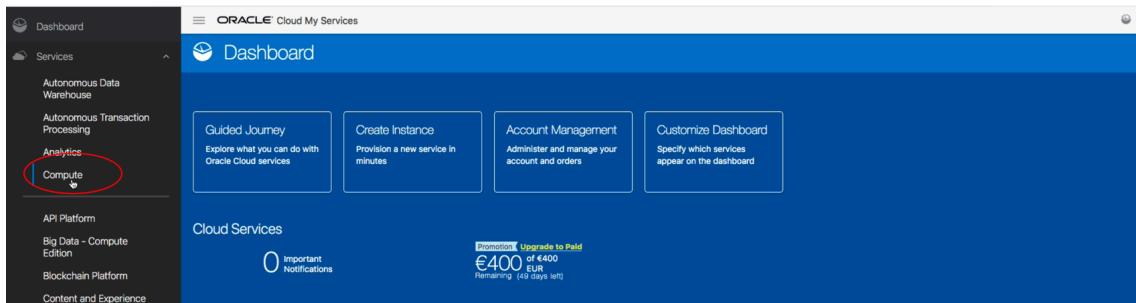
Una vez accedemos al entorno, debemos configurar una serie de credenciales adicionales. Clickamos en el enlace que se muestra en la pantalla.



En la pantalla aparecen todas las credenciales a configurar.



Para recuperar el “Tenancy OCID” navegaremos al menú lateral y seleccionamos el servicio “Compute”



Seleccionar nuestro tenancy.

The screenshot shows the Oracle Cloud Compute service interface. On the left, there's a sidebar with options like Instances, Instance Configurations, Instance Pools, AutoScaling Configurations, Custom Images, Boot Volumes, and Boot Volume Backups. The main area is titled 'Compute' and has a sub-section 'Select a Compartment'. A message states: 'Oracle Cloud Infrastructure uses Compartments to organize your resources. View and manage your resources: Select a Compartment and resource type using the filters on the left.' Below this is a link 'Learn more about Compartments'. On the right, there's a 'Profile' section with a 'Tenancy' entry: 'Tenancy: enimbosdos'. This entry is circled in red. Other options in the profile include 'User Settings' and 'Sign Out'.

Seleccionar “Show” y “Copy” para obtener el dato.

This screenshot shows the Oracle Cloud Object Storage settings for the 'enimbosdos' tenancy. It displays the 'Tenancy Information' tab. Key details shown are: OCID: ocid1.tenancy.oc1.aaaaaaaaf5jkgrrzbtv4zonc7kvynba3zooyw3lztgta[57]dflsj2rca, Name: enimbosdos, Home Region: eu-frankfurt-1, and Audit Retention Period: 90 Days. There is a 'Hide Copy' button next to the OCID, which is also circled in red. Other tabs available are 'Edit Audit Retention Policy' and 'Edit Object Storage Settings'. Below the tabs, there's a 'Tags' section.

Incluirlo en los datos de configuración.

This screenshot shows the 'Configure OCI Account' dialog box. Under 'Account Type', the 'OCI' radio button is selected. In the 'OCI Credentials' section, fields are filled with the copied values: Tenancy OCID (ocid1.tenancy.oc1.aaaaaaaaf5jkgrrzbtv4zonc7kvynba3zooyw3lztgta[57]dflsj2rca), User OCID (empty), Home Region (eu-frankfurt-1), Private Key (empty), Passphrase (empty), Fingerprint (empty), Compartment OCID (empty), and Storage Namespace (empty). A note at the bottom states: 'Developer Cloud Service requires these credentials to access Compute, Operations role privileges, which are extensive. By checking the box, you acknowledge that you have read and accepted the terms specified [here](#)'. There are 'Validate', 'Cancel', and 'Save' buttons at the bottom. A sidebar on the left lists various project management and development tools like Merge Requests, Docker, Releases, Deployments, Issues, Boards, Wiki, and Snippets.

A continuación recuperaremos el “User OCID” navegando tal como se muestra en la imagen.

The screenshot shows the Oracle Cloud Infrastructure console. In the top right corner, there is a 'Profile' section with a 'User Settings' link. This link is highlighted with a red oval. Below it are links for 'Sign Out' and 'Tags'. The main content area displays 'Tenancy Information' for the tenancy 'enimbosdos'. It includes sections for 'Tenancy Information' (OCID: ocid1.tenancy.oc1..aaaaaaaaf5jkgrzztb7v4zonc7kvynba3zooyw3lzgta57dlsjs2rca), 'Object Storage Settings' (Amazon S3 Compatibility API Designated Compartment: enimbosdos (root), Object Storage Namespace: fxpx3rnbtq), and 'Profile' (Home Region: eu-frankfurt-1, Audit Retention Period: 90 Days). A note at the bottom states: 'If you recently updated the audit retention period, please allow several minutes for the value to take effect.'

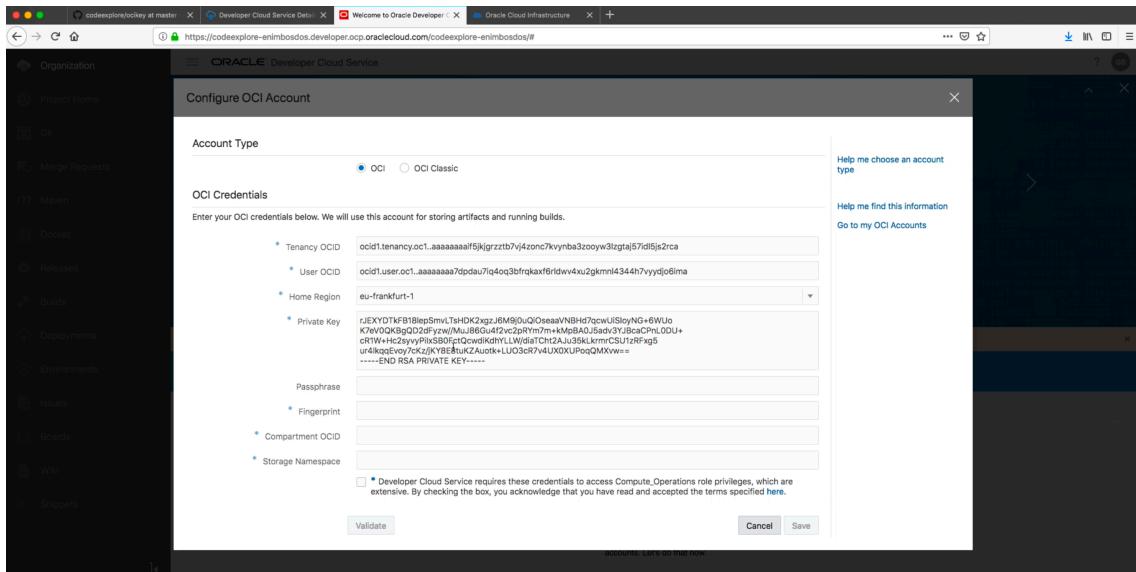
Recuperar los datos con la operación de “Show” y “Copy”

This screenshot shows the 'User Details' page for a user named 'oracleidentitycloudservice'. The user has a green profile picture and is marked as 'ACTIVE'. The 'User Information' tab is selected. Key details shown include the User OCID (ocid1.user.oc1..aaaaaaa7dpda7iq4oq3bfrqkaxf6rldwv4xu2gkmn4344h7vyjdj06ima), which is circled in red, and the status 'Status: Active Federated: Yes'. There is also a note: 'This user is created through IDCS federation. Manage user profile details through IDCS federation here.' Below the OCID, there are 'Edit User Capabilities' and 'Apply Tag(s)' buttons.

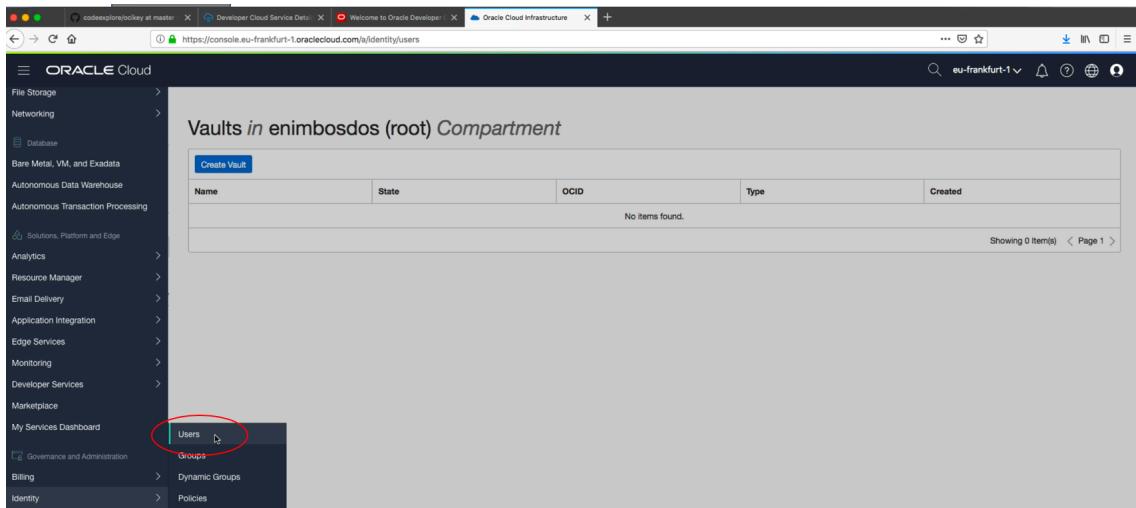
Incluir el dato copiado y seleccionar como región “Frankfurt”

This screenshot shows the 'Configure OCI Account' dialog. Under the 'Account Type' section, 'OCI' is selected. The 'OCI Credentials' section requires entering tenancy, user, and compartment OCIDs, along with a passphrase, fingerprint, and storage namespace. The 'Private Key' field contains the copied content from the previous step. A note at the bottom states: 'Developer Cloud Service requires these credentials to access Compute_Operations role privileges, which are extensive. By checking the box, you acknowledge that you have read and accepted the terms specified here.' At the bottom right are 'Cancel' and 'Save' buttons.

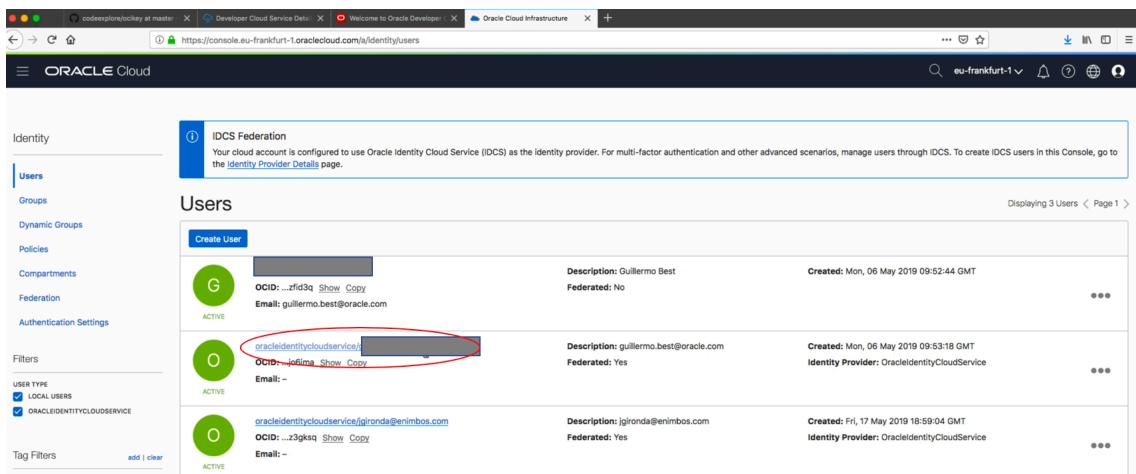
Copiar el contenido del fichero “ocikey” en el parámetro “Private Key”



Para obtener el “fingerprint” hay que navegar al menú de “Identity > Users”



Seleccionar el usuario tal como se muestra en la imagen.



Seleccionamos la opción de añadir una clave pública.

The screenshot shows the Oracle Cloud Infrastructure API Keys page. On the left, there's a sidebar with 'API Keys (0)', 'Auth Tokens (0)', 'SMTP Credentials (0)', 'Customer Secret Keys (0)', and 'Groups (0)'. The main area is titled 'API Keys' and contains a button labeled 'Add Public Key' which is circled in red. Below the button, it says 'There are no API Keys for this User.' and has another 'Add Public Key' button.

Copiar el contenido del fichero “ocikey.pub.pem” y pulsar “Add”

This screenshot shows the 'Add Public Key' dialog box. It contains a text area with a long PEM key string, which is also copied into the clipboard icon. Below the text area is a large blue 'Add' button with a circled arrow icon, indicating it needs to be clicked to add the key.

Seleccionar el “fingerprint” para copiarlo en la pantalla de configuración.

The screenshot shows the Oracle Cloud Infrastructure API Keys page again, but now with one item listed: 'API Keys (1)'. The details for the single key include a green 'PK' icon, the 'Fingerprint: 77:36:b2:3b:6e:3b:45:0e:fa:e7:9c:ea:3d:0e:50:f0', and the 'Time Created: Fri, 17 May 2019 19:21:04 GMT'. The '77:36:b2:3b:6e:3b:45:0e:fa:e7:9c:ea:3d:0e:50:f0' part is circled in red.

This screenshot shows the 'Configure OCI Account' dialog box. It has sections for 'Account Type' (set to 'OCI'), 'OCI Credentials' (with fields for Tenant OCID, User OCID, Home Region, and Private Key), and 'Compartments' (with fields for Compartment OCID, Storage Namespace, and a 'Passphrase'). The 'Fingerprint' field, which contains the value '77:36:b2:3b:6e:3b:45:0e:fa:e7:9c:ea:3d:0e:50:f0', is circled in red. There is also a note about developer privileges at the bottom.

Introduciremos a continuación el “Compartment OCID” Para ello navegaremos tal como se muestra en la pantalla.

This screenshot shows the Oracle Cloud Infrastructure Identity Compartments page. On the left, there's a sidebar with various service links like File Storage, Networking, Database, and Oracle Cloud. The 'Identity' section is expanded, showing 'Compartments' as a link, which is circled in red. The main content area displays a user profile for 'oracleidentitycloudservice/guillermo.best@oracle.com'. It includes fields for Description, OCID, Status, and Federated status. Below this is a 'Capabilities' section with tabs for Users, Groups, Dynamic Groups, Policies, and Compartments. The 'Compartments' tab is selected and highlighted with a red circle.

Crearemos un compartimento nuevo.

This screenshot shows the 'Compartments' list page. The 'Compartments' link in the sidebar is circled in red. The main area lists existing compartments: 'enimbosdos (root)' and 'ManagedCompartimentForPaaS'. A prominent blue button labeled 'Create Compartment' is at the top of the list, also circled in red.

Seleccionamos como nombre “codeexplore” y pulsamos “Create compartment”

This screenshot shows the 'Create Compartment' dialog box. The 'NAME' field is filled with 'codeexplore' and is circled in red. The 'PARENT COMPARTMENT' dropdown is set to 'enimbosdos (root)'. At the bottom of the dialog, the 'Create Compartment' button is highlighted with a red circle.

Seleccionamos el compartimiento creado.

The screenshot shows the Oracle Cloud Infrastructure Identity Compartments page. On the left, there's a sidebar with 'Identity' selected, followed by 'Users', 'Groups', 'Dynamic Groups', 'Policies', 'Compartments' (which is also circled in red), 'Federation', and 'Authentication Settings'. Below the sidebar is a 'Tag Filters' section with 'add | clear' buttons. The main area is titled 'Compartments' and contains a table with columns: Name, Status, OCID, Authorized, Subcompartments, and Created. The table shows three rows:

Name	Status	OCID	Authorized	Subcompartments	Created
enimbosdos (root)	Active	...as2rca	No	2	-
codeexplore (circled in red)	Active	...p3k6ba	No	0	Fri, 17 May 2019 19:21:47 GMT
ManagementCompartmentForPaaS	Active	...xshdra	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 >'

Seleccionar el parámetro con “Show” y “Copy”

The screenshot shows the Oracle Cloud Infrastructure Compartment Details page for the 'codeexplore' compartment. The compartment is labeled 'ACTIVE' and has a green circular icon with a white 'C'. Below the icon are buttons for 'Rename Compartment', 'Edit Description', 'Add Tag(s)', and 'Delete'. The 'Tags' tab is selected. Under 'Compartment Information', it shows the 'Parent Compartment: enimbosdos (root)', 'OCID: ocid1.compartment.oc1.aaaaaaaesiwly2uhogvrszhqvduye5vo24i2/b14qjtba4sh3pk6ba', 'Authorized: No', and 'Created: Fri, 17 May 2019 19:21:47 GMT'. A 'Copy' button is circled in red next to the OCID. Below this, the 'Resources' section shows 'Child Compartments (0)' and a 'Create Compartment' button.

The screenshot shows the 'Configure OCI Account' dialog box. In the 'Account Type' section, the 'OCI' radio button is selected. In the 'OCI Credentials' section, several fields are filled with placeholder text. The 'Compartment OCID' field contains the value 'ocid1.compartment.oc1.aaaaaaaesiwly2uhogvrszhqvduye5vo24i2/b14qjtba4sh3pk6ba' and is circled in red. At the bottom of the dialog, there's a note about developer cloud service requirements and a checkbox for accepting terms, followed by 'Validate', 'Cancel', and 'Save' buttons.

Por último necesitaremos el “Storage Namespace” Para ello navegaremos a la pantalla de configuración del “tenancy”

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

Profile
oracleidentitycloudservice/guillermo.best@oracle.com
Tenancy: enimbosdos

User Settings
Sign Out

Seleccionar “Edit Storage Settings”

enimbosdos

Edit Audit Retention Policy | Edit Object Storage Settings | Apply Tag(s)

Tenancy Information | Tags

Tenancy Information

OCID: ...js2rca Show Copy
Name: enimbosdos

Object Storage Settings

Amazon S3 Compatibility API Designated Compartment: enimbosdos (root)
Object Storage Namespace: frpx3rgnbtq

Home Region: eu-frankfurt-1
Audit Retention Period: 90 Days
If you recently updated the audit retention period, please allow several minutes for the value to take effect.

Seleccionar los parámetros a valor “codeexplore” como se muestra en la pantalla y pulsar “Save”

Edit Object Storage Settings

Settings for Object Storage in this tenancy.

AMAZON S3 COMPATIBILITY API DESIGNATED COMPARTMENT
codeexplore

SWIFT API DESIGNATED COMPARTMENT
codeexplore

Save | Cancel

Seleccionar el valor “Object Storage Namespace”

The screenshot shows the Oracle Cloud Infrastructure console with the URL <https://console.eu-frankfurt-1.oraclecloud.com/#/tenancy>. The page displays tenancy information for compartment 'enimbosdos'. The 'Object Storage Settings' section includes fields for 'Amazon S3 Compatibility API Designated Compartment' (set to 'codeexplore') and 'Object Storage Namespace' (set to 'frxp3rnbtq'). A red circle highlights the 'Object Storage Namespace' input field.

Introducir el dato objetivo, aceptar el checkbox y seleccionar “Validate”

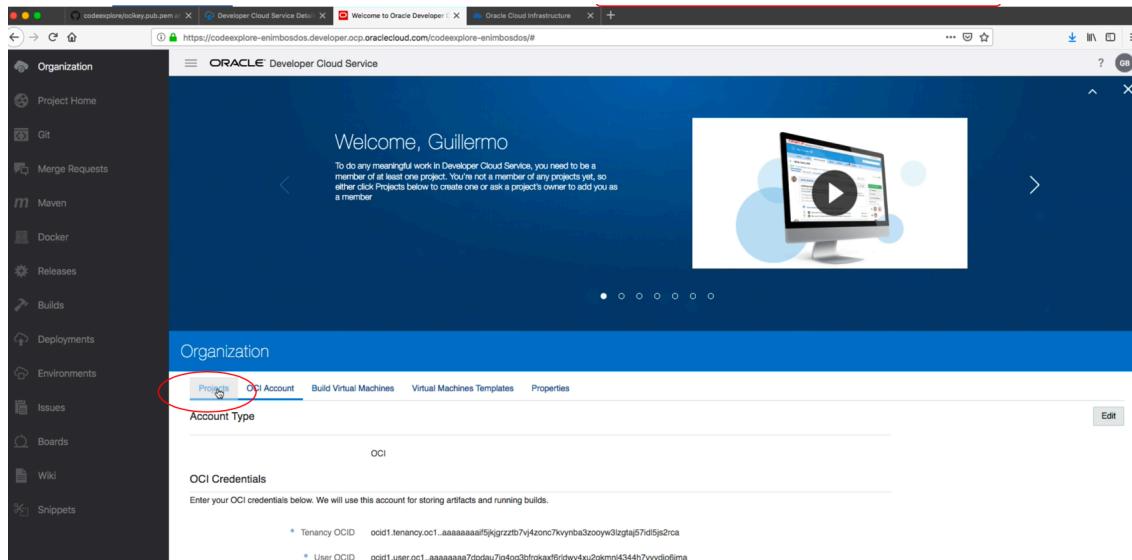
The screenshot shows the 'Configure OCI Account' dialog. Under 'OCI Credentials', the 'Storage Namespace' field contains 'frxp3rnbtq'. A red circle highlights this field. Below it, a checkbox is checked with the note: 'Developer Cloud Service requires these credentials to access Compute,Operations role privileges, which are extensive. By checking the box, you acknowledge that you have read and accepted the terms specified here.' The 'Validate' button at the bottom is also highlighted with a red circle.

Si la configuración ha sido correcta, nos aparecerá una notificación al respecto. En ese caso, salvamos.

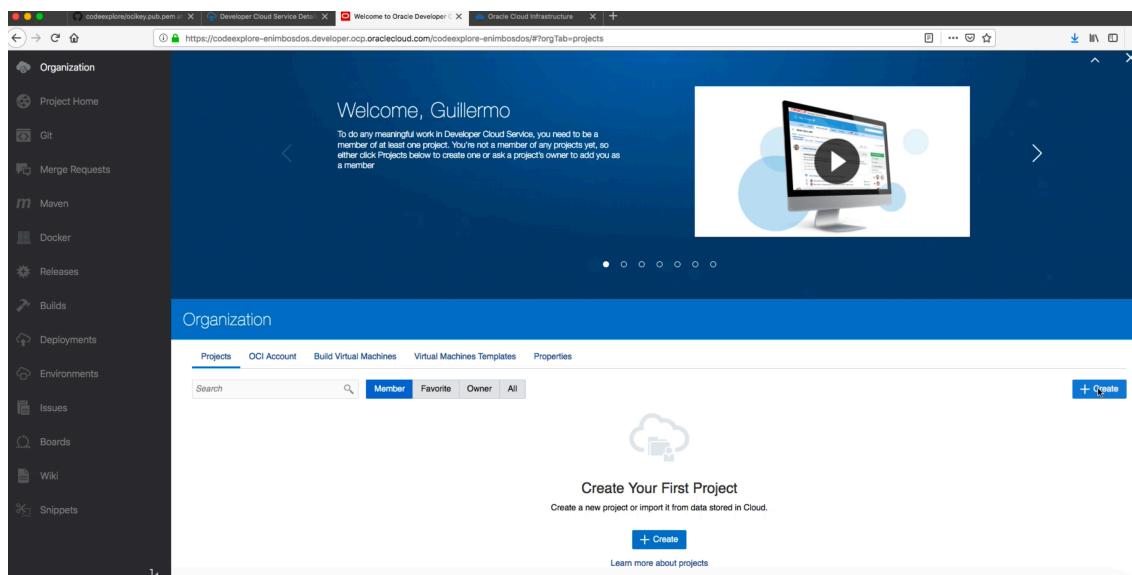
The screenshot shows the 'Configure OCI Account' dialog after validation. At the bottom, two notifications are displayed: 'Compute Connection Successful' and 'Storage Connection Successful'. Both are highlighted with a red circle. The 'Save' button is also highlighted with a red circle.

Creación de un proyecto sobre Developer Cloud Service

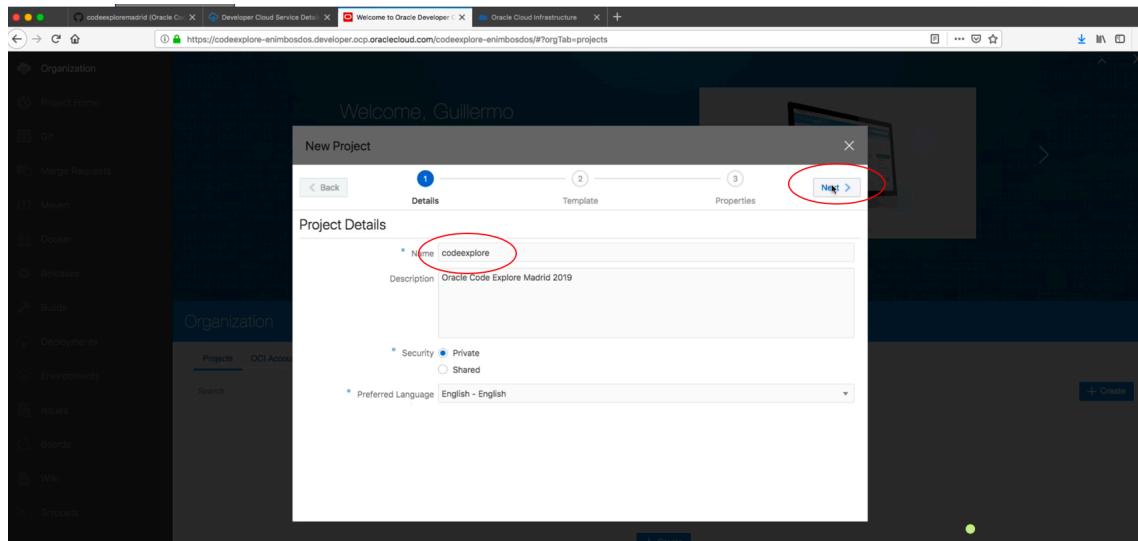
Seleccionar la opción “Projects”



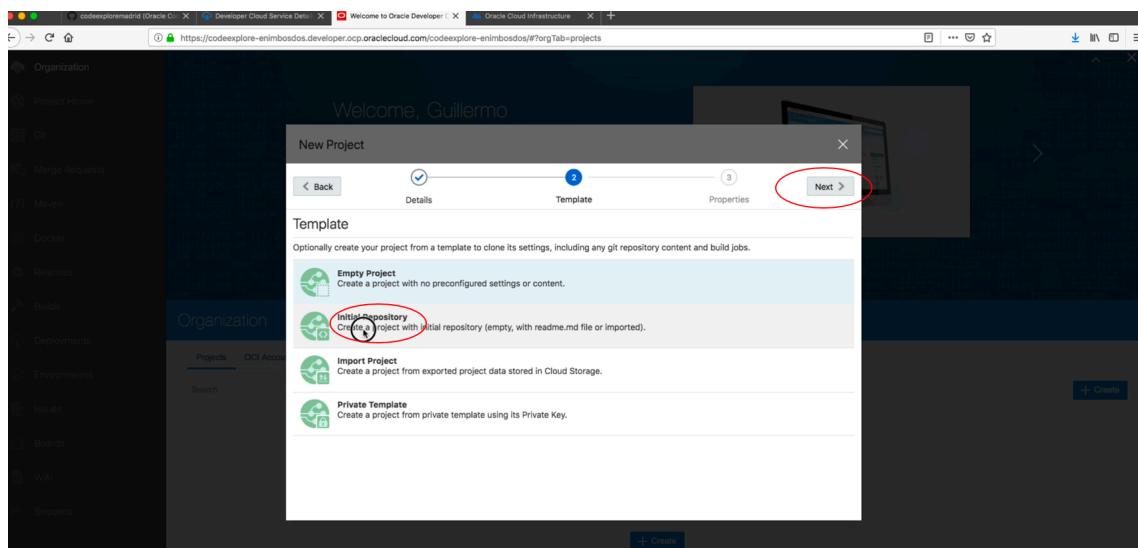
Comenzamos el proceso de creación de proyecto pulsando “Create”



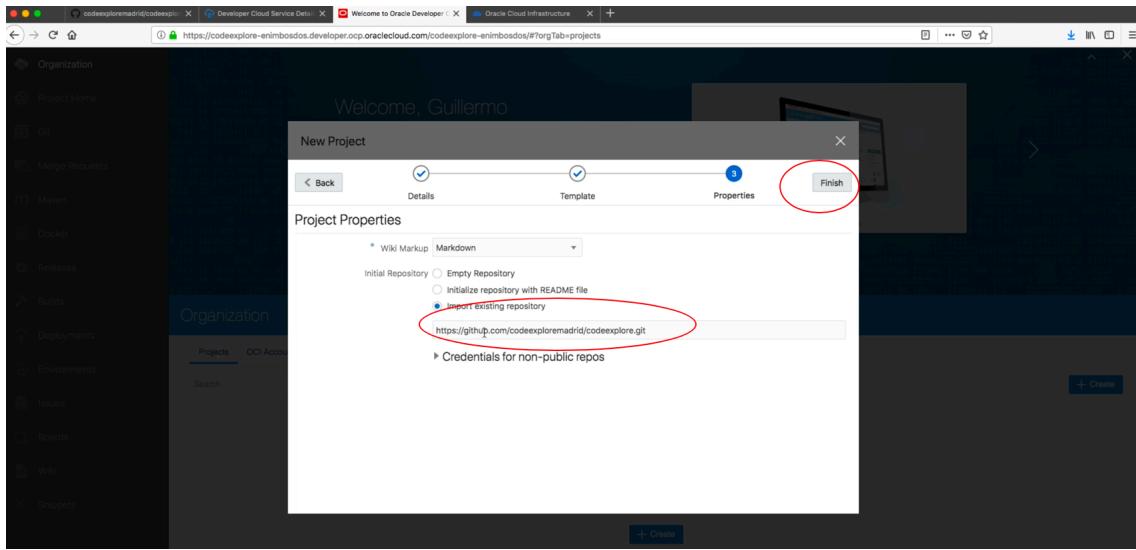
Seleccionar como nombre “codeexplore” y pulsar “Next”



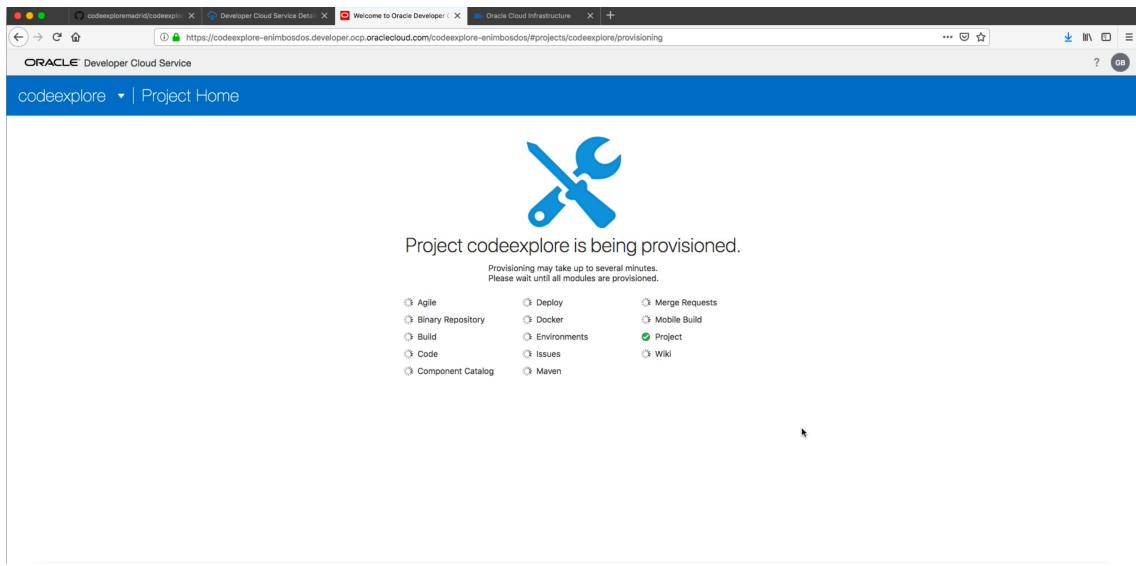
Seleccionamos la opción “Initial Repository” como template y pulsamos “Next”



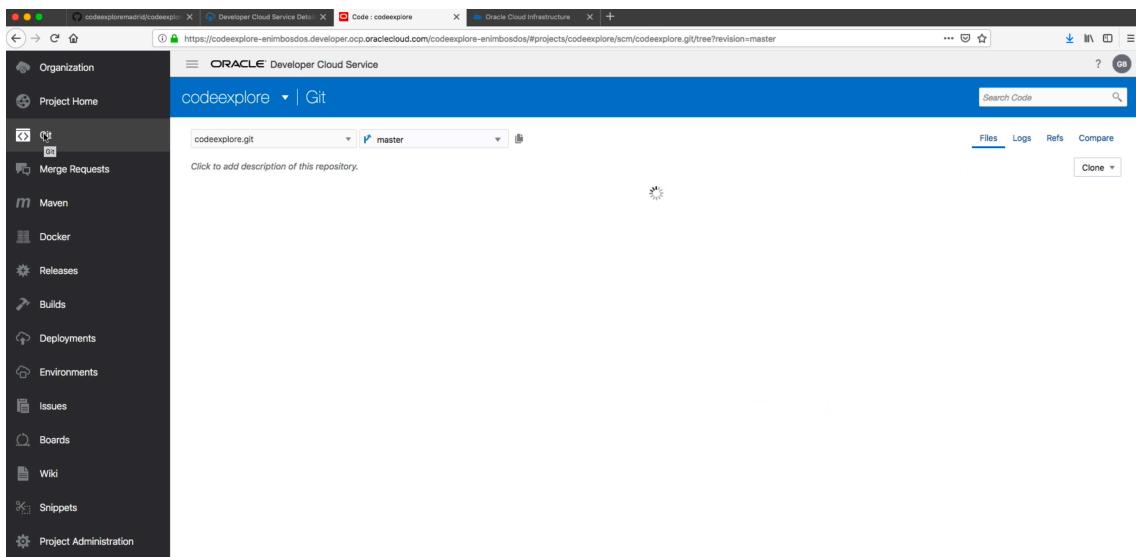
Seleccionar la opción “Import existing repository” y como repositorio
“<https://github.com/codeexploremadrid/codeexplore.git>” y pulsar “Finish”



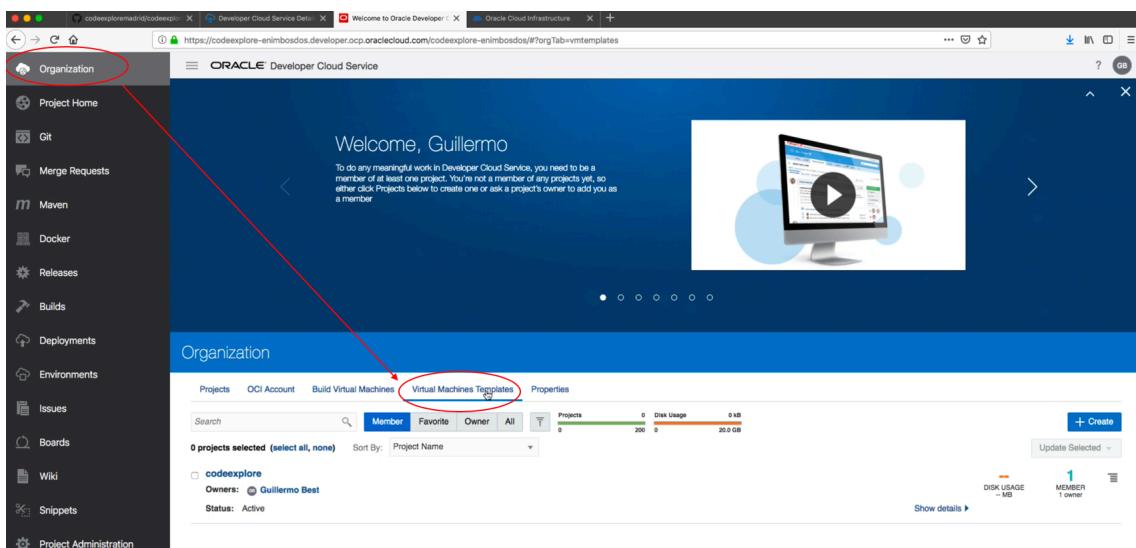
El proceso de creación de artefactos comienza.



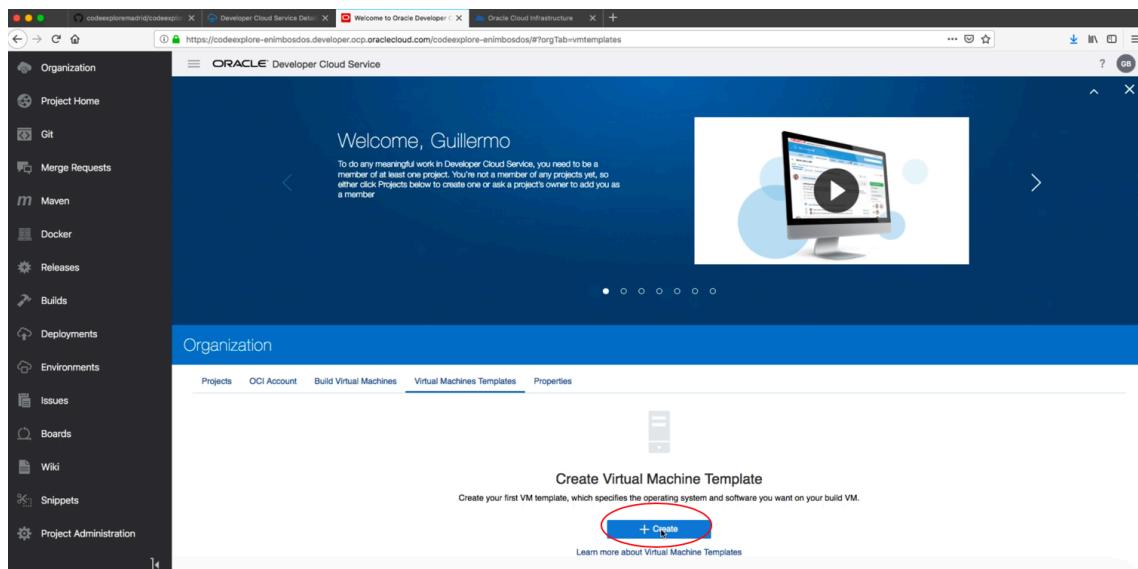
Una vez finalizado tendremos acceso al proyecto con todas las herramientas provisionadas.



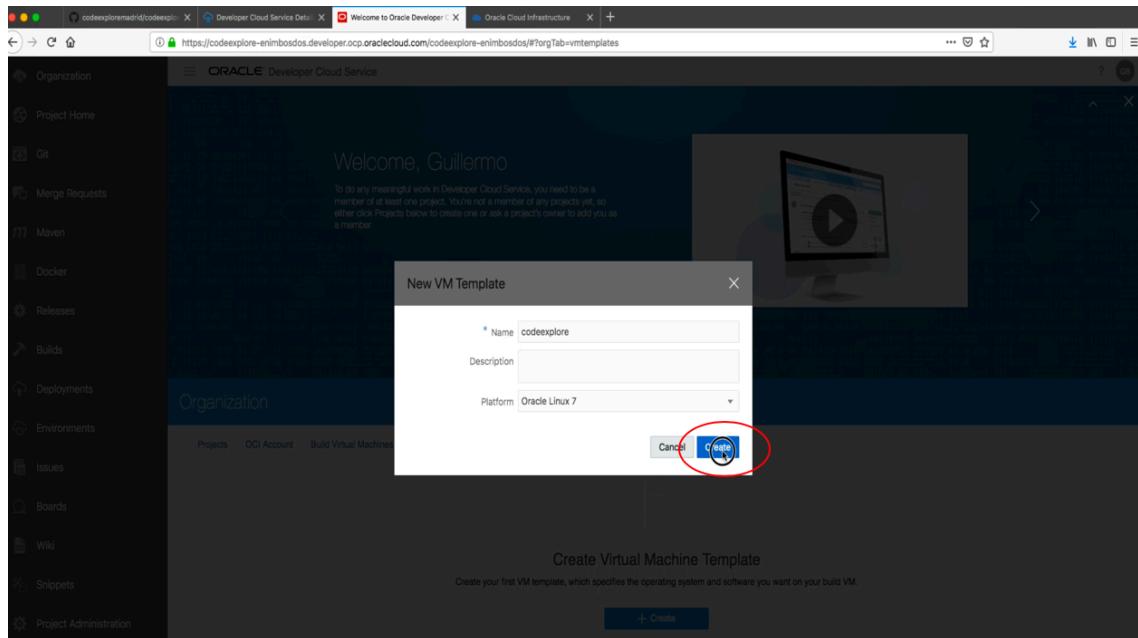
El siguiente paso es crear una máquina virtual donde se ejecutarán las tareas de despliegues. Seleccionamos en el menú “Organization” la pestaña de “Virtual Machines Templates”



Seleccionamos la opción “Create” para crear un template.



Seleccionar los valores que aparecen en la imagen y pulsar “Create”



Una vez creado, añadimos software utilizando la opción “Configure Software”

Welcome, Guillermo

To do anything meaningful work in Developer Cloud Service, you need to be a member of at least one project. You're not a member of any projects yet, so either click Projects below to create one or ask a project's owner to add you as a member.

Organization

Projects OCI Account Build Virtual Machines Virtual Machines Templates Properties

+ Create Template

Configure Software

codeexplore Oracle Linux 7 Software Packages

NAME	VERSION	STORAGE (MB)
Required Build VM Components	1.9.3	100

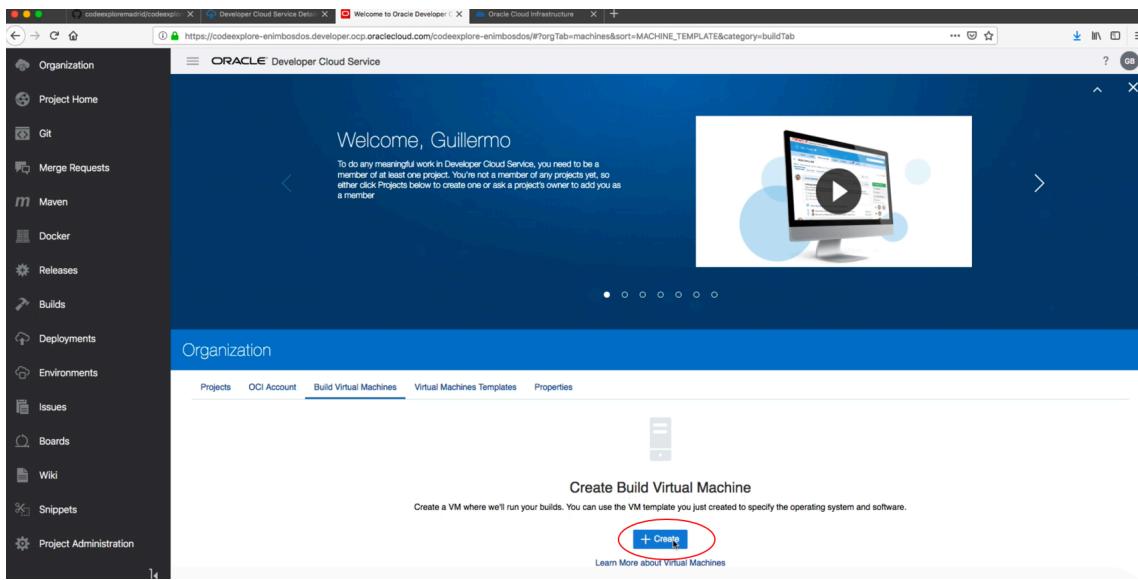
Seleccionar los paquetes que aparecen en la imagen y pulsar “Done”

Selected Software
Requires 380 MB

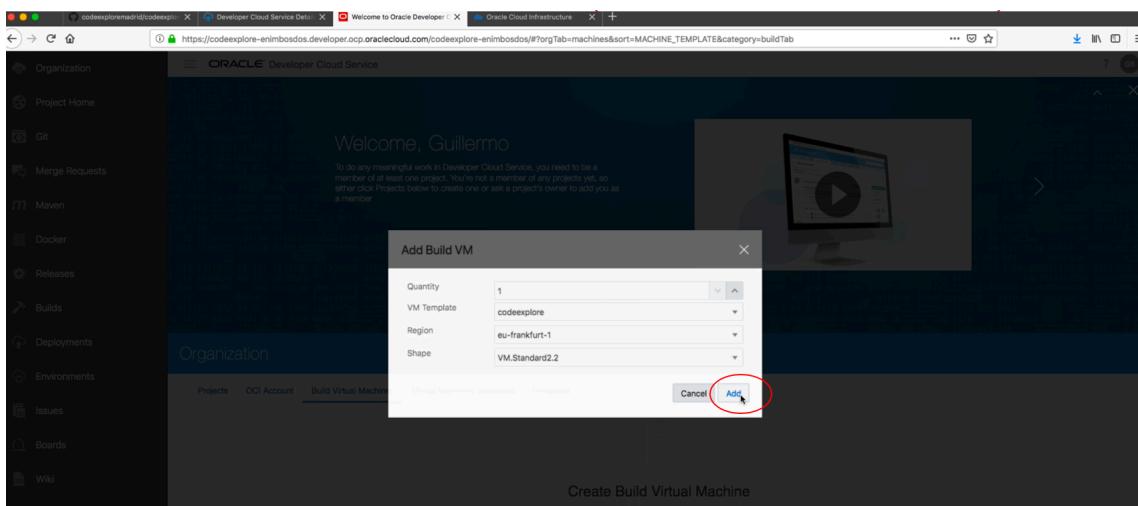
- Kubectl Version: 1.8.4 Requires 50 MB
- OCICL Version: 2.4.44 Requires 0 MB
- Oracle Instant Client 12c 12 Version: 12.1.0.2.0 Requires 0 MB
- Python3 3.6 Version: 3.6.5 Requires 194 MB
- Required Build VM Components Version: 1.9.3 Requires 100 MB
- SQLCLI 18 Version: 18.4.0.007.1818 Requires 21 MB
- Terraform Version: 0.11.11 Requires 15 MB

Done

Por último crearemos una máquina virtual utilizando el template que acabamos de configurar.



Seleccionar los parámetros como se indica en la figura y pulsar “Add”



La máquina virtual queda lista para ser utilizada.

The screenshot shows the Oracle Cloud Infrastructure Developer Cloud Service interface. On the left, there is a sidebar with various project management options: Organization, Project Home, Git, Merge Requests, Maven, Docker, Releases, Builds, Deployments, Environments, Issues, Boards, Wiki, Snippets, and Project Administration. The main content area has a blue header bar with tabs for Welcome, Organization, Projects, OCI Account, Build Virtual Machines (which is selected), Virtual Machines Templates, and Properties. Below this, there is an 'Overview' section with a summary of VM status: 1 VM Built VMs (0 of 1 Build VM is in running status...), 0 error VM Errors (No VM is in error state), and a 'Manage VM Templates' button. A table lists the build VM: Template codeexplore, Region eu-frankfurt-1, Shape VM.Standard2.2, and Status Pending. There are buttons for Sleep Timeout, Update Selected, and Create VM.