### Servidores

#### Servidor

Computador diseñado específicamente para proporcionar información y software a otras computadoras que estén conectadas a él por medio de una red

Servidor Rack HP HP ProLiant Gen8

https://youtu.be/-2ufWl-eA\_o



- § Diseñado para manejar cargas de trabajo más grandes, tareas más especificas y que su tiempo de inactividad sea menor.
- § Cuentan con herramientas de administración remota.

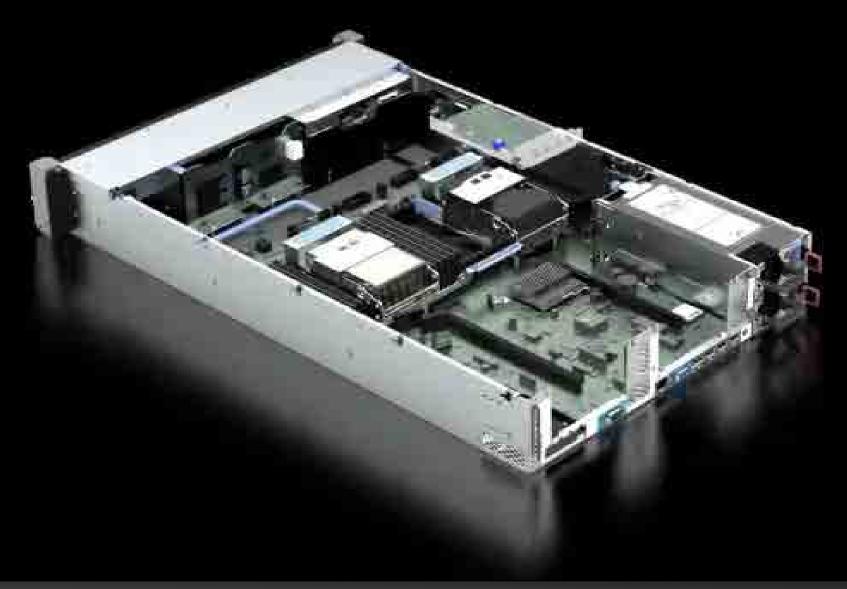


#### Tarjeta madre:

- Permite múltiples procesadores (opteron es la línea de AMD y Xeon e Itanium de Intel).
- Cuenta con slots de memoria para cada socket, (esta ram cuenta con casi nulo margen de error: un error de lectura en 1'142,000 años).
- No tienen interfaz de audio y la GPU es de prestaciones limitadas.



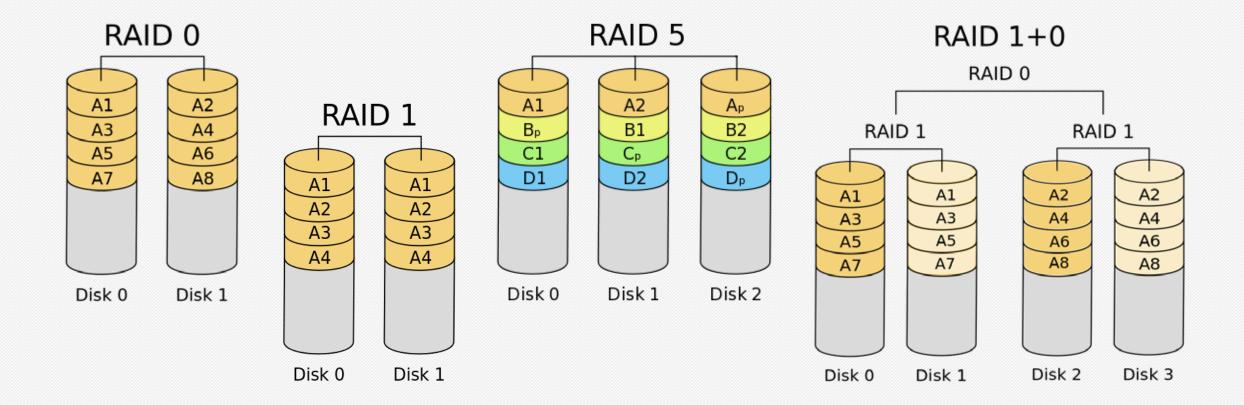
# Red y puertos de expansión: en muchos casos, se integran dos interfaz de red Ethernet de 10/100/1000 Mb**Serviceability**



Fuente de energía: en su mayoría redundantes (conocidas como duales), permiten su mantenimiento sin apagar ni reiniciar el servidor.



Un arreglo RAID permite aumentar la velocidad, la seguridad, o ambas.



## Ventilación



#### Factor de forma



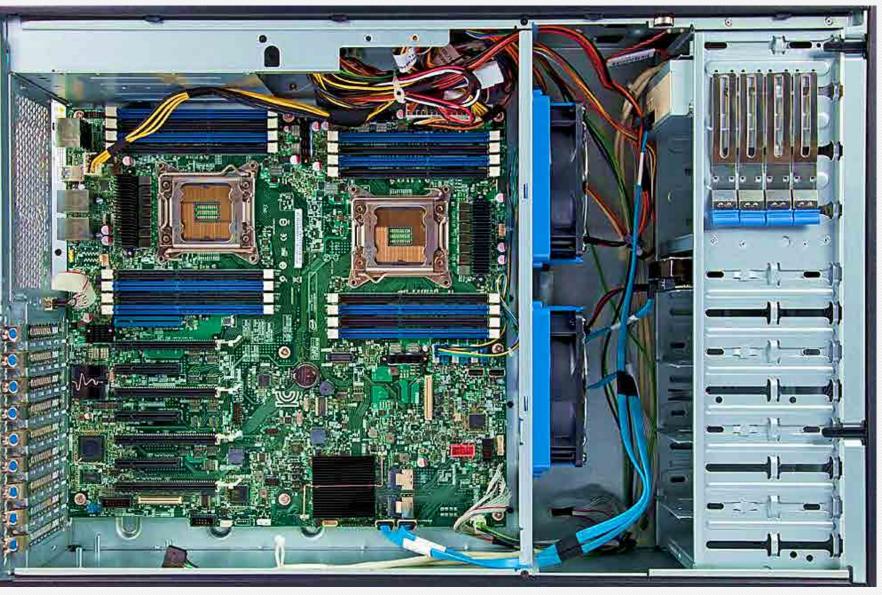
#### Torre (tower)

Son los servidores más básicos del mercado. Ocupan el mismo espacio que un ordenador personal.

Ideales para las pequeñas empresas que:

- § Tienen un espacio limitado y necesitan un procesamiento centralizado sin llegar a requerir una sala de datos.
- § Necesitan realizar un monitoreo y mantenimiento más sencillos.
- § Requieren de Servidores de preproducción o pruebas



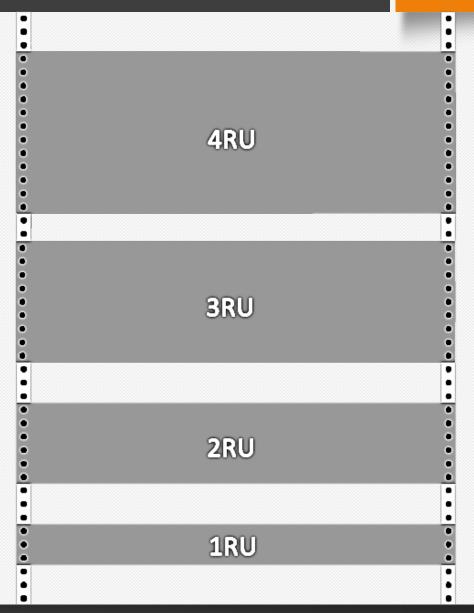


#### Rack

Es más adecuada para las empresas que:

- § Desean maximizar el espacio.
- § Quieren flexibilidad de combinar con dispositivos diversos (red, etcétera).

Una unidad rack (1U) es la altura del equipamiento preparado para ser montado en un rack de 19 o 23 pulgadas de ancho (mas común 19'), siendo este de 1,75 pulgadas (4,445 cm) de alto.



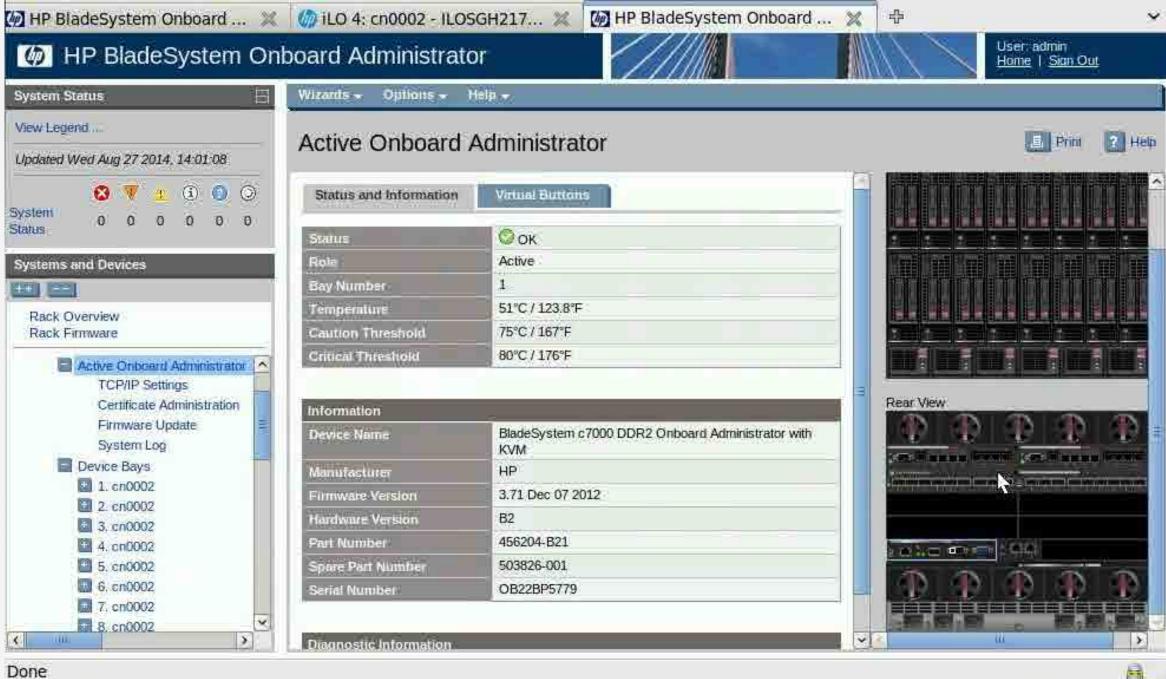


#### Blade

- § Los más compactos de los tres.
- § Permiten compartir componentes de hardware como las fuentes de alimentación.
- § Ahorran espacio y energía.

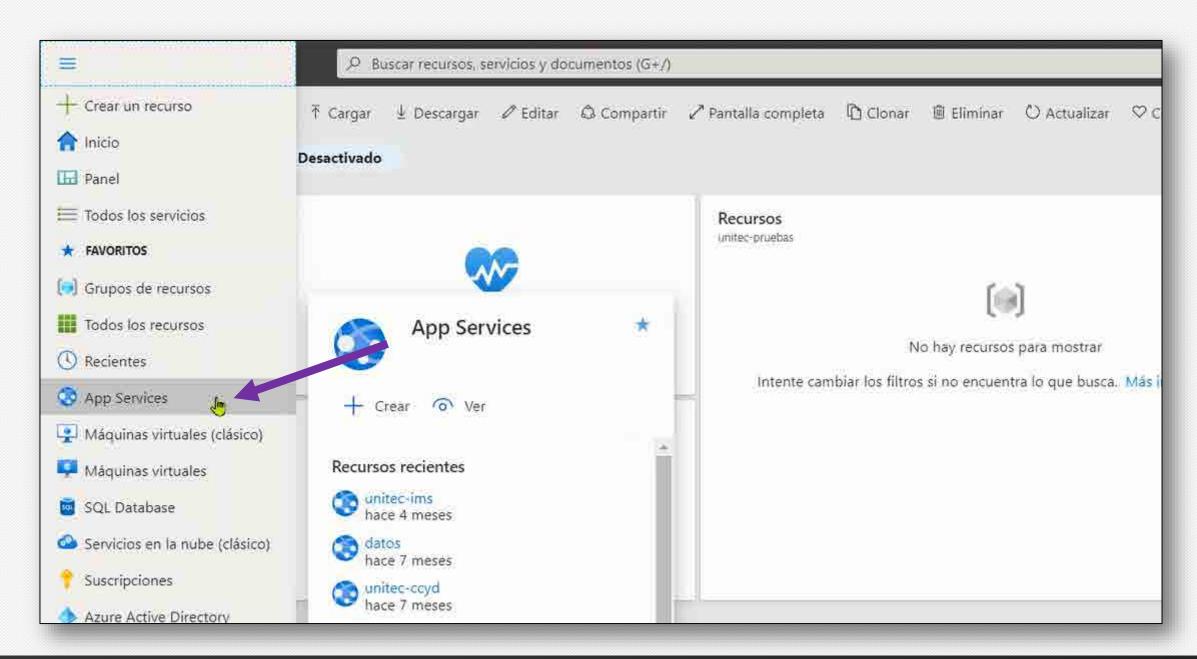


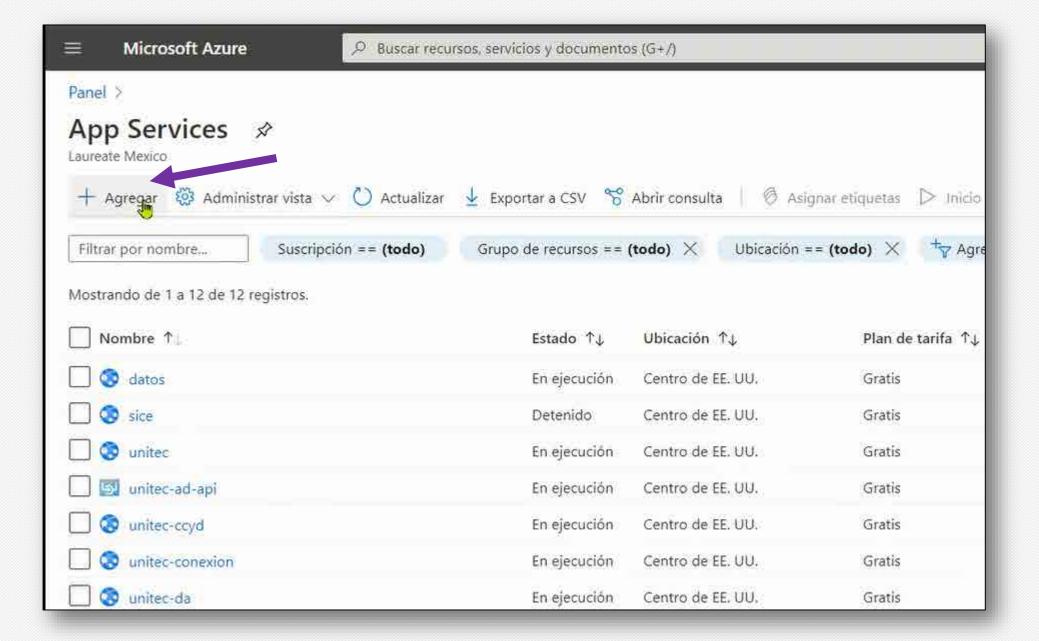


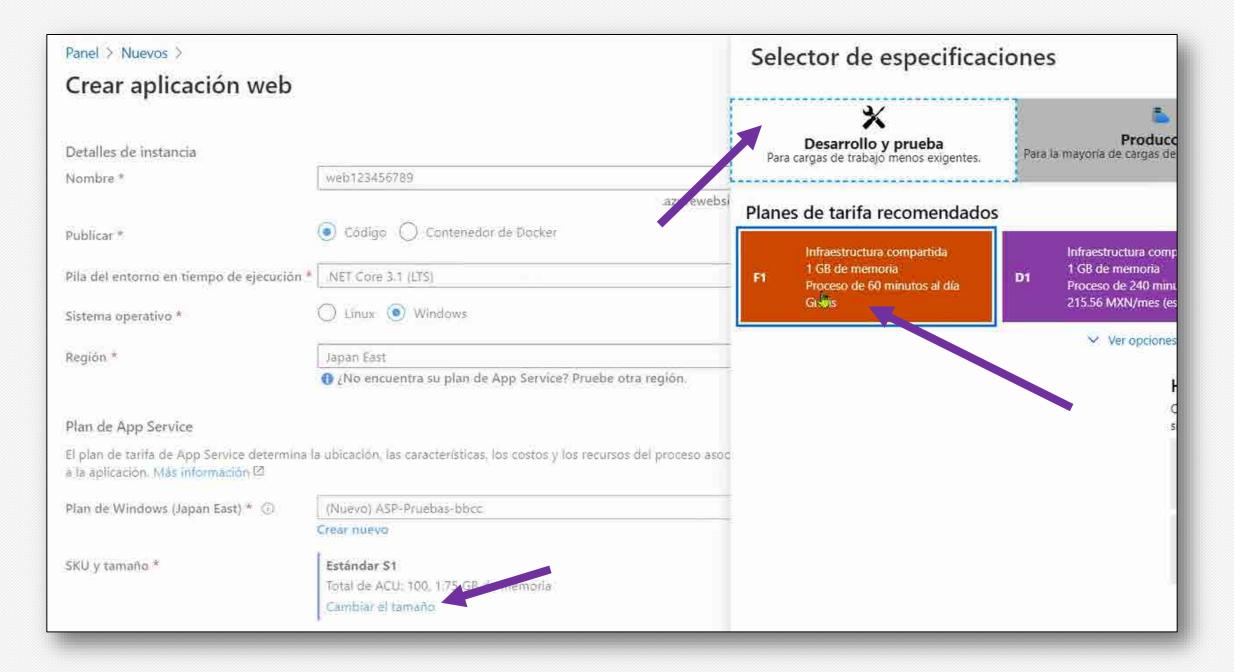


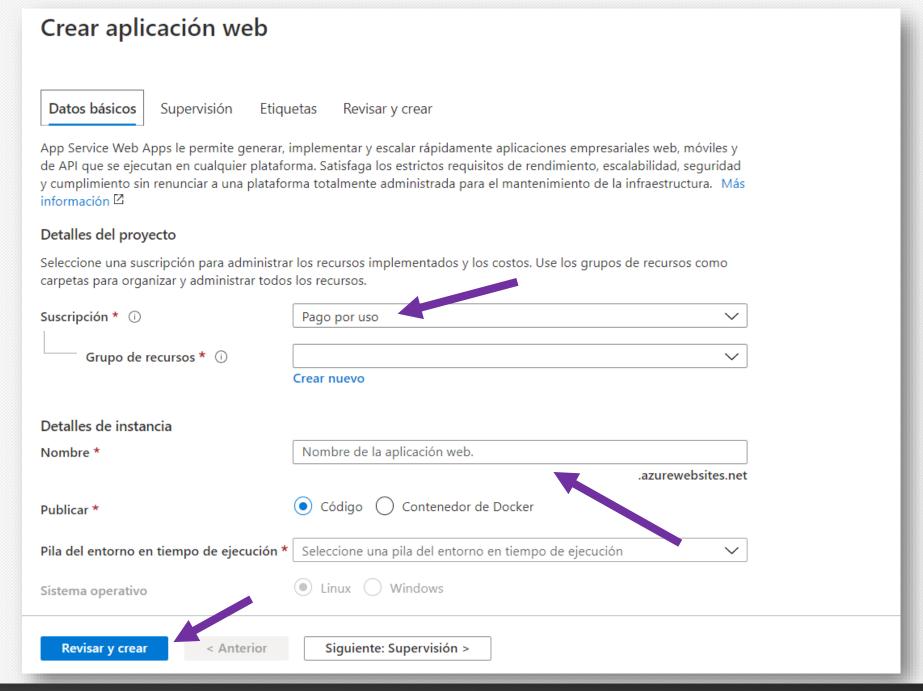
### AppService

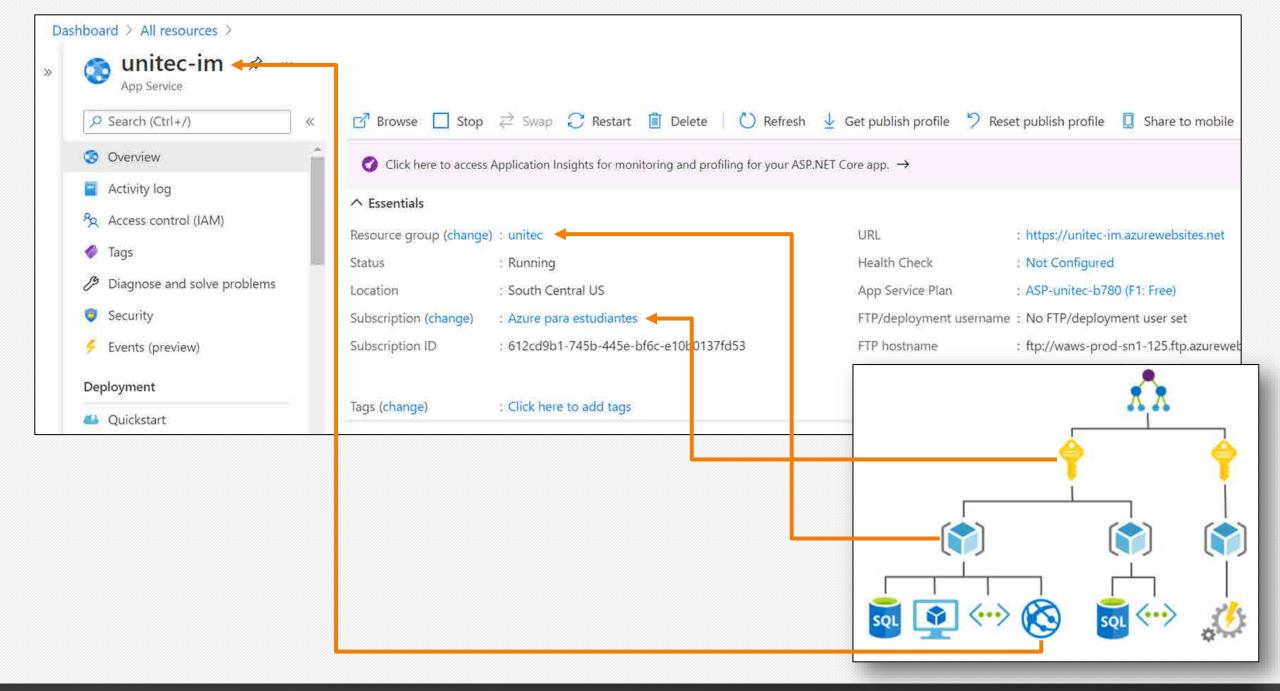
Azure











### Integración

VS code

#### Restaurar paquetes y dependencias y construir una compilacion

```
\> dotnet restore . \src\Presentation. WebApp\
  Determining projects to restore...
  All projects are up-to-date for restore.
\> dotnet build .\src\Presentation. WebApp\
Microsoft (R) Build Engine version 16.11.0+0538acc04 for .NET
Copyright (C) Microsoft Corporation. All rights reserved.
  Determining projects to restore...
  All projects are up-to-date for restore.
  Domai \ n \rightarrow E: \codes\im\im\221bi\ m\src\Domai\ n\bi\ n\below \net5.\ 0\Domai\ n.\ dl\ l
  Application -> E: \codes\im\im221bim\src\Application\bin\Debug\net5. 0\Application. dll
  Infrastructure -> E: \codes\im\im221bim\src\Infrastructure\bin\Debug\net5. 0\Infrastructure. dll
  Presentation. WebApp -> E: \codes\im\im221bim\src\Presentation. WebApp\bin\Debug\net5. 0\Presentation. WebApp. dll
  Presentation. WebApp -> E: \codes\im\im221bim\src\Presentation. WebApp\bin\Debug\net5. 0\Presentation. WebApp. Vi ews. dll
Build succeeded.
    0 Warning(s)
    0 Error(s)
Time Elapsed 00:00:01.61
```

#### Generate the deployment package locally

```
\> dotnet publish . \src\Presentation. WebApp\
Microsoft (R) Build Engine version 16.10.2+857e5a733 for .NET
                                                                                                         File Edit Selection View Go
Copyright (C) Microsoft Corporation. All rights reserved.
                                                                                                       D
                                                                                                              EXPLORER
  Determining projects to restore...
  All projects are up-to-date for restore.

∨ OPEN EDITORS

  WebApp -> E: \codes\im\Final \WebApp\bin\Debug\net5. 0\WebApp. dll
                                                                                                              × × ✓ Welcome
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∨ WEBAPP

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    bin \ Debug \ net5.0

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\> ls .\src\Presentation. WebApp\bin\Debug\net5. 0\publish\
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    Directory: E: \codes\im\im221bim\src\Presentation. WebApp\bin\Debug\net5. 0\publish
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           11/10/2021 10:31 a. m.
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           11/10/2021 10: 26 a. m.
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           16/02/2021 04:00 p. m.
                                             173456 System. Drawing. Common. dll
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                                                563 web. config
           11/10/2021 12:34 p. m.
```

#### Generate the deployment package locally

\> Compress-Archive .\src\Presentation. WebApp\bin\Debug\net5.0\publish\\* Presentation. WebApp.zip \> ls Directory: E:\codes\im\im221bim Mode LastWriteTime Length Name 11/10/2021 10:24 a. m. src d----11/10/2021 10: 24 a. m. test 11/10/2021 10:23 a. m. 6578 . gitignore - a- - - -05/10/2021 02:32 p. m. 10686 i m221bi m. sl n - a- - - -11/10/2021 12:37 p. m. 21590419 Presentation. WebApp. zip -a---30/09/2021 01:43 p. m. 11231 README. md -a---

# Despliegue

#### Az PowerShell module

#### https://aka.ms/installazurecliwindows

```
\> Invoke-WebRequest
     -Uri https://aka.ms/installazurecliwindows -OutFile.\AzureCLI.msi;
      Start-Process msi exec. exe - Wait `
     -ArgumentList '/I AzureCLI.msi /quiet'; `rm.\AzureCLI.msi
\> Install-Module - Name Az - Scope CurrentUser - Repository PSGallery - Force
                                                                                       Productivity
                                                                                                                     S& Unpin from Start
                                                                                                                                                                  Q: Turn Live Tile off
                                                                                                                                                                   off Stom
                                                                                                                       Uninstall
                                                                                                                                            Run as administrator
                                                                                                                     Windows PowerShel
                                                                                                                     Communit Promot
                                                                                                                                            Rate and review
                                                                                                                     Azure Cloud Shell

    Git Bash

                                                                                                                                               Pr
```

#### **Azure CLI**

```
\> az login
The default web browser has been opened at https://login.microsoftonline.com/common/oauth2/authorize. Please continue the login in the web browser. If no web browser is available or if the web browser fails to open, use device code flow with `az login --use-device-code`.
You have logged in. Now let us find all the subscriptions to which you have access...
The following tenants don't contain accessible subscriptions. Use 'az login --allow-no-subscriptions' to have tenant level access.
7840a574-46db-481f-ae56-fbb6bebb112d 'Contoso'
a92ea444-27b9-428c-8ae2-d88b40dca1d0 'Capacitación Teams'
     "cloudName": "AzureCloud",
                                                                                                                                                                       \times
     "homeTenantId": "db92e7fd-ee89-491d-bf3f-af75f073e0cf",
                                                                                   Iniciar sesión en la cuenta
                                                                                                              × +
     "id": "612cd9b1-745b-445e-bf6c-e10b0137fd53",
     "isDefault": false,
                                                                                                     ↑ https://login.microsoftonline.co... ☆
     "managedByTenants": [],
     "name": "Azure para estudiantes",
                                                                                                                    Microsoft Azure
     "state": "Enabled",
     "tenantId": "db92e7fd-ee89-491d-bf3f-af75f073e0cf".
     "user": {
       "name": "juan_carrillog@my.unitec.edu.mx",
"type": "user"
                                                                                                         Microsoft
     "environmentName": "AzureCloud",
                                                                                                         Iniciar sesión
     "homeTenantId": "db92e7fd-ee89-491d-bf3f-af75f073e0cf",
     "id": "1e807802-d84a-448f-b162-7ac1223311c3",
     "isDefault": true,
                                                                                                         juan_carrillog@my.unitec.edu.mx
     "managedByTenants": [],
     "name": "Pay-As-You-Go Dev/Test",
     "state": "Enabled".
                                                                                                          ¿No tiene una cuenta? Cree una.
     "tenantId": "db92e7fd-ee89-491d-bf3f-af75f073e0cf",
     "user": ·
                                                                                                          ¿No puede acceder a su cuenta?
       "name": "juan_carrillog@my.unitec.edu.mx",
       "type": "user"
                                                                                                          Opciones de inicio de sesión
                                                                                                                                Atrás
                                                                                                                                             Siguiente
                                                                                                                                               Términos de uso Privacidad y cookies · · ·
```

#### **Azure CLI**

```
\> az webapp deployment source config-zip `
     -s "Azure para estudiantes" `←
     -g "unitec" `
     -n "unitec-im" `←
     --src Presentation. WebApp. zip
Getting scm site credentials for zip deployment
Starting zip deployment. This operation can take a while to complete ...
Deployment endpoint responded with status code 202
  "active": true,
  "author": "N/A",
  "author_email": "N/A",
  "complete": true,
  "depl oyer": "Zi pDepl oy",
  "end time": "2020-12-03T17:58:08.1997203Z",
  "id": "e63976ae2cc746bdad148a8d8f2a5ea6",
  "is_readonly": true,
  "is_temp": false,
  "last_success_end_time": "2020-12-03T17:58:08.1997203Z",
  "log_url": "https://unitec-ims.scm.azurewebsites.net/api/deployments/latest/log'
  "message": "Created via a push deployment",
  "progress": "",
  "provisioningState": null,
  "received_time": "2020-12-03T17:58:04.6520277Z",
  "site_name": "unitec-ims",
  "start_time": "2020-12-03T17:58:05.2145584Z",
  "status": 4,
  "status_text": "",
  "url": "https://unitec-im.scm.azurewebsites.net/api/deployments/latest"
```

# DevOps

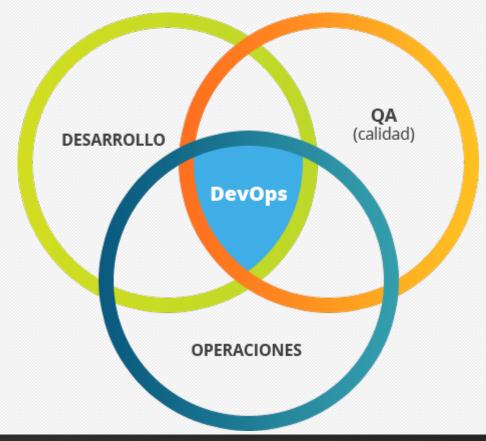
#### Desarrollo y Operaciones

DevOps es una **filosofía** que involucra la unión de **personas**, **procesos** y **productos** para permitir la **entrega continua**, la **automatización** y el **monitoreo** en todas las fases del SDLC.

DevOps apunta a ciclos más cortos, una planificación ágil, vigilancia (Uso de telemetría sobre el rendimiento), mayor frecuencia de implementación (CI) y lanzamientos más confiables (CD)

en estrecha alineación con los objetivos comerciales.

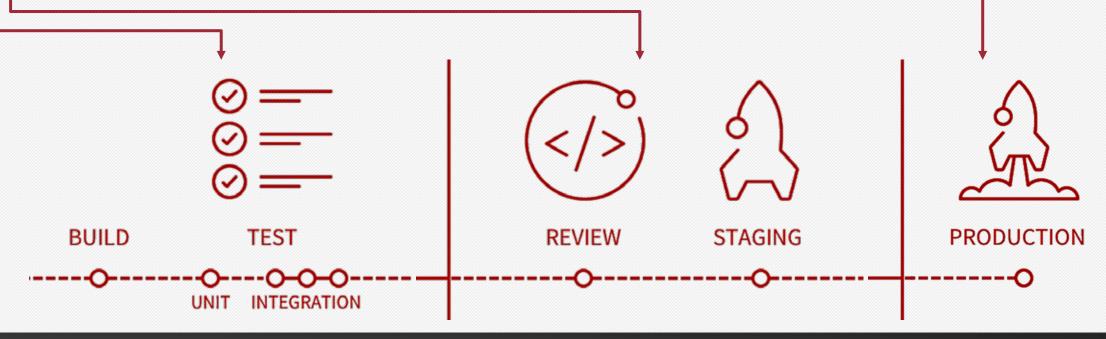




#### Practicas

- Integración Continua (CI, continuous intagration): Automatización de la compilación (el código de TODOS se mergea frecuentemente) desde un entorno de desarrollo a uno de pruebas (QA branch).
- Entrega continua (CD, continuous delivery): Automatización de pruebas para su posterior despliegue desde un entorno de pruebas a uno de producción (Master branch).

Despliegue continuo (continuous deployment): Automatización del despliegue del entorno de producción a la operación del software.



### CI | Integración continua

Azure DevOps Pipelines

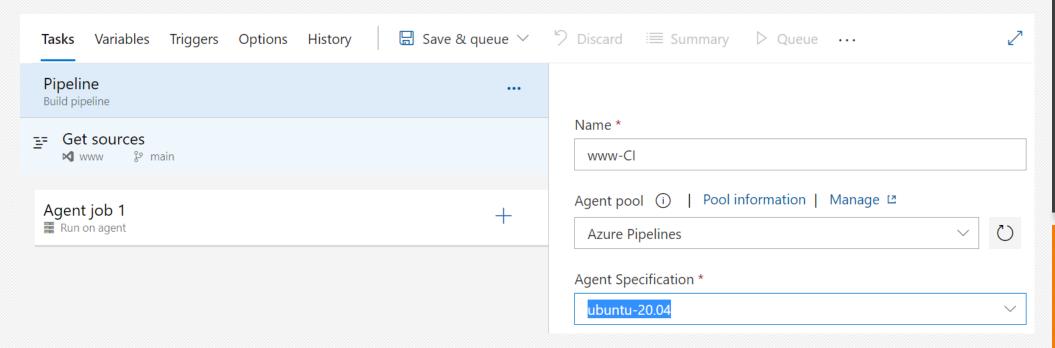
- 1. Use the classic editor to create a pipeline without YAML
- 2. SOURCE:

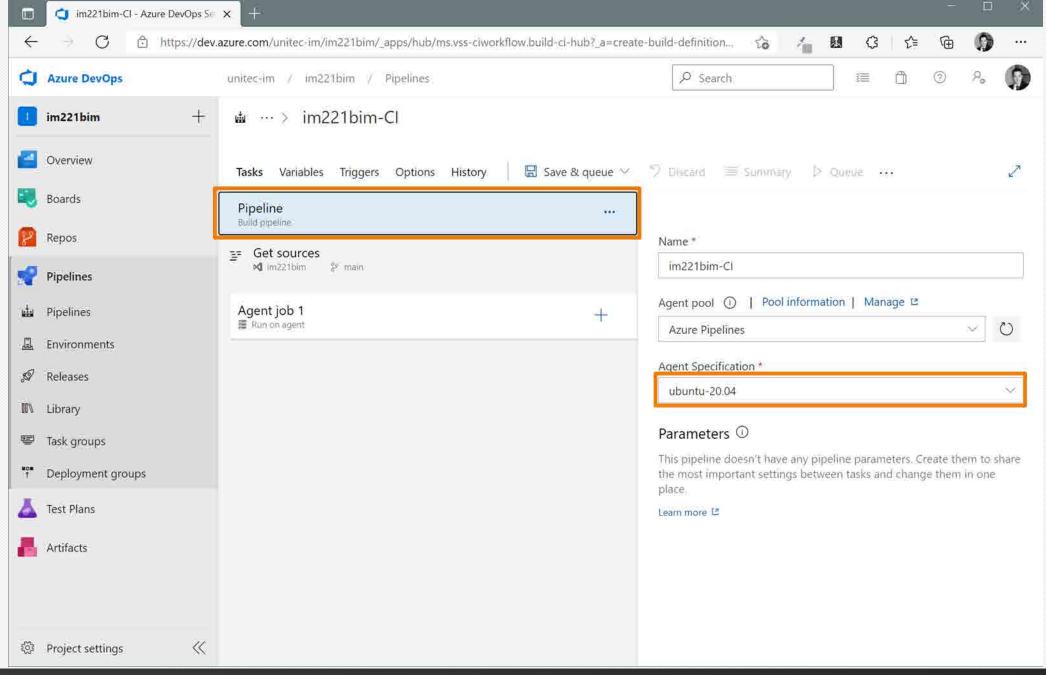


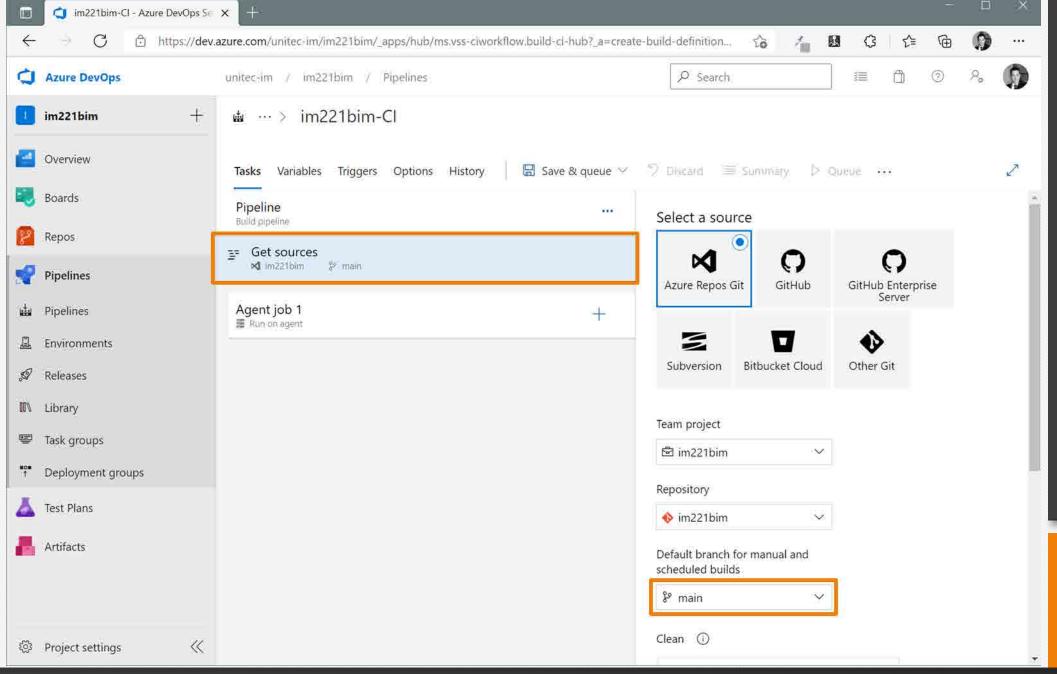
#### 3. TEMPLATE:

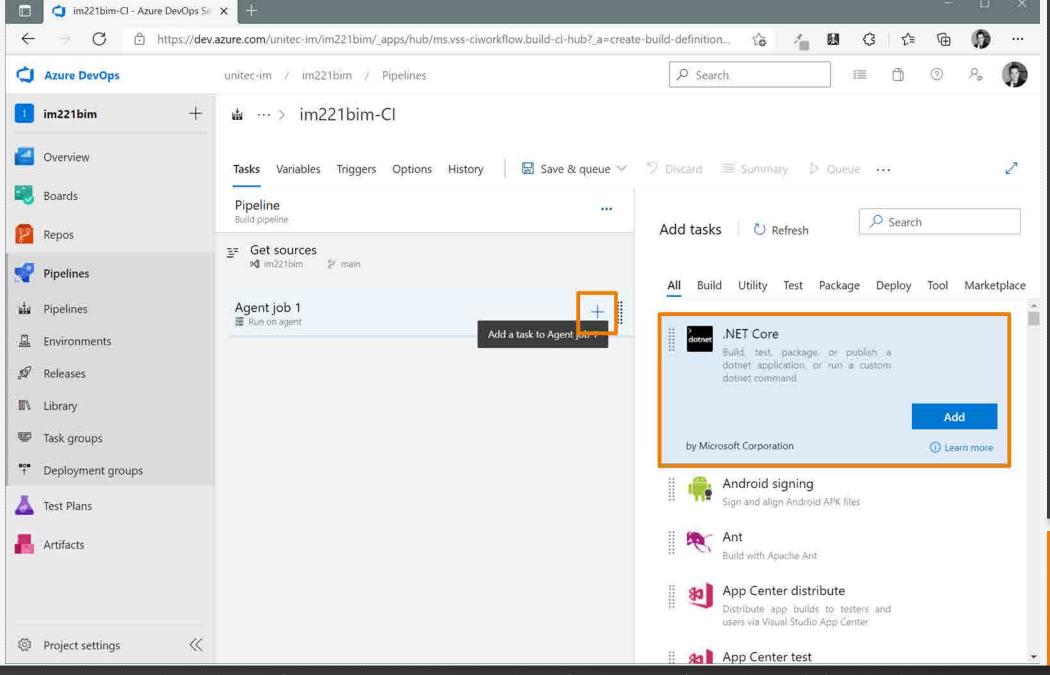
Or start with an 🛔 Empty job

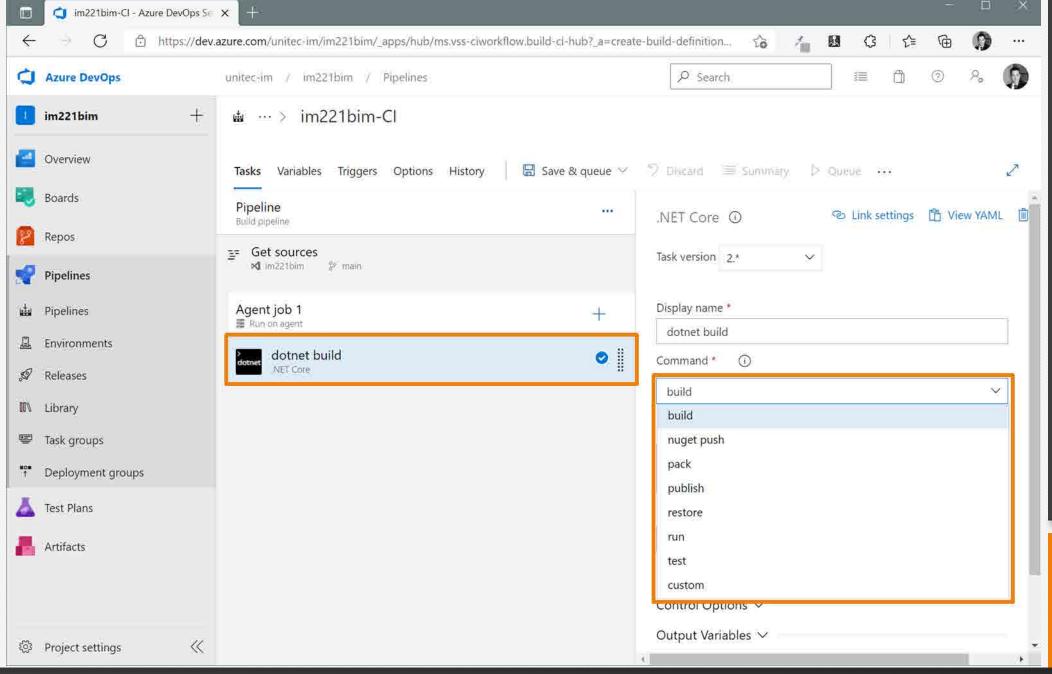
#### 4. AGENT JOB:



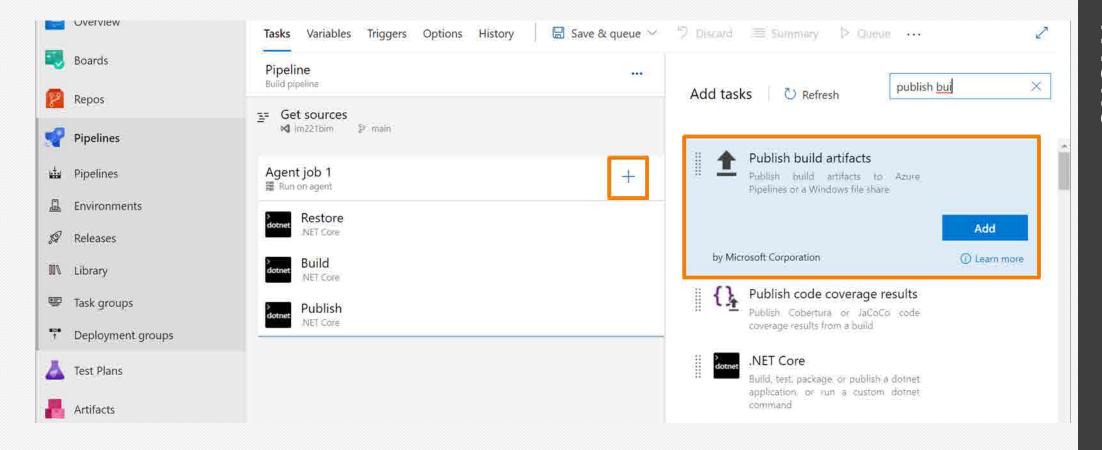








```
1. TASK: . NET Core
     Task version: 2.*
     Display name: Restore
     Command: restore
     Path to project(s): **/*.csproj
     Feeds to use: Feed(s) I select here
2. TASK: . NET Core
     Task version: 2.*
     Display name: Build
     Command: build
     Path to project(s): **/*.csproj
     Arguments: --configuration $(BuildConfiguration)
3. TASK: . NET Core
     Task version: 2.*
     Display name: Publish
     Command: publish
     Check > Publish web projects
     Arguments: --configuration $(BuildConfiguration) --output $(Build.ArtifactStagingDirectory)
     Check > Zip published projects
     Check > Add project's folder name to publish path
```



#### TASK: Publish buid artifacts

Task version: 1.\*

Display name: Publish Artifact: drop

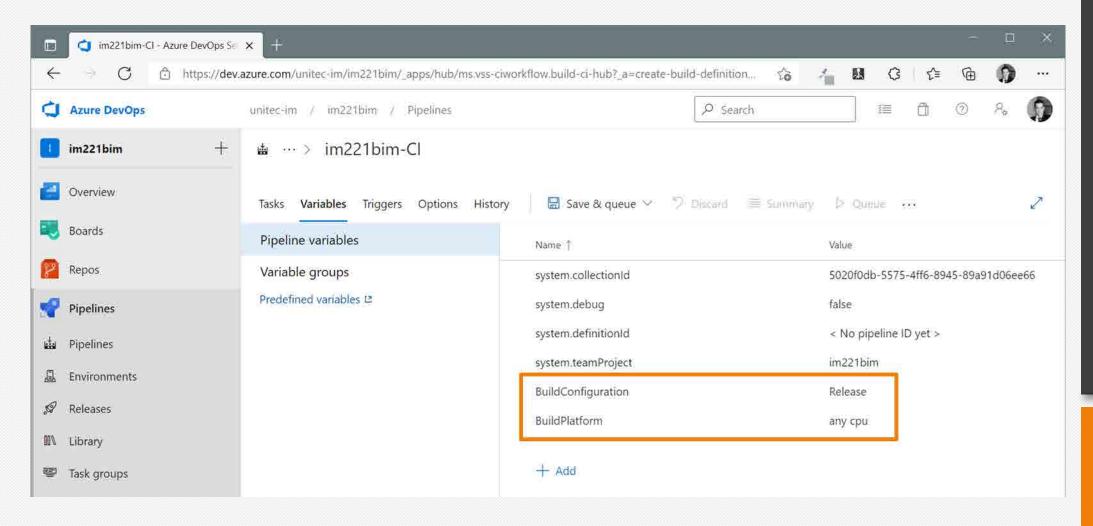
Path to publish: \$(Build. ArtifactStagingDirectory)

Artifact name: **drop** 

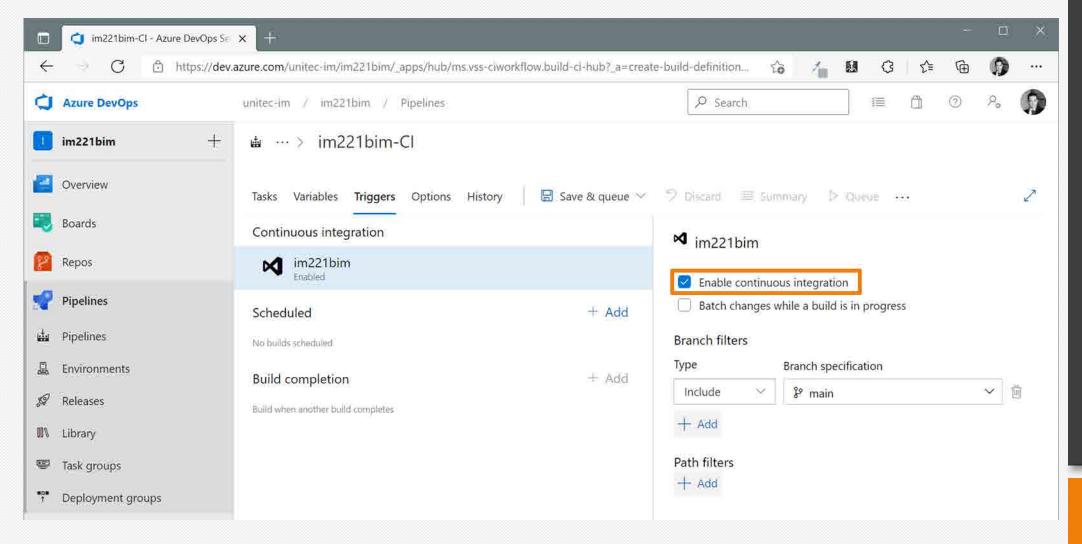
Artifact publish location: Azure Pipelines

Pipeline variables:

BuildConfiguration | Release
BuildPlatform | any cpu



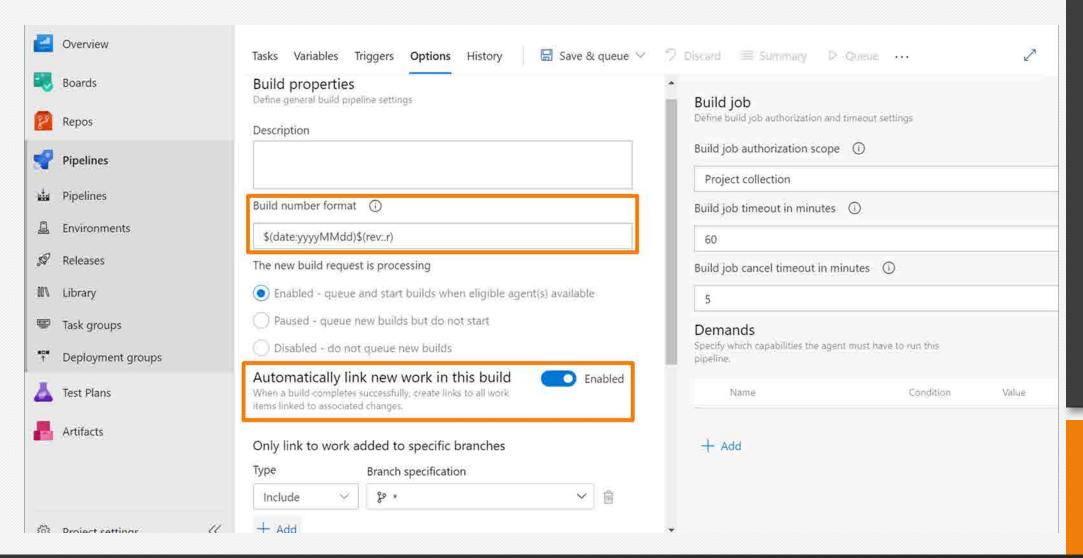
# **Enable continuous integration | Check**

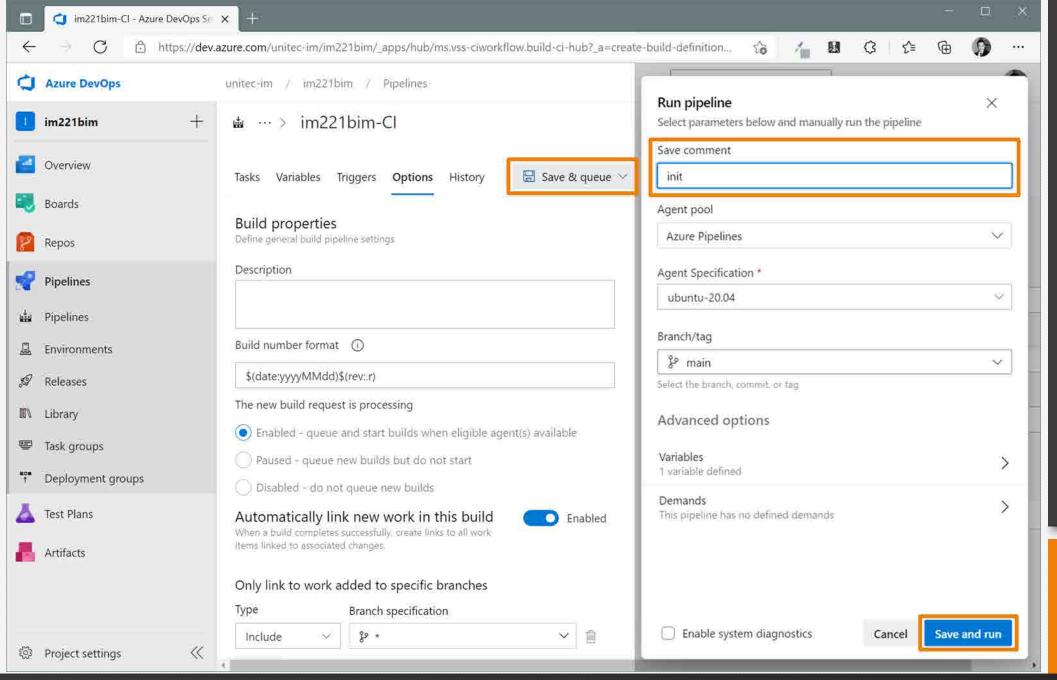


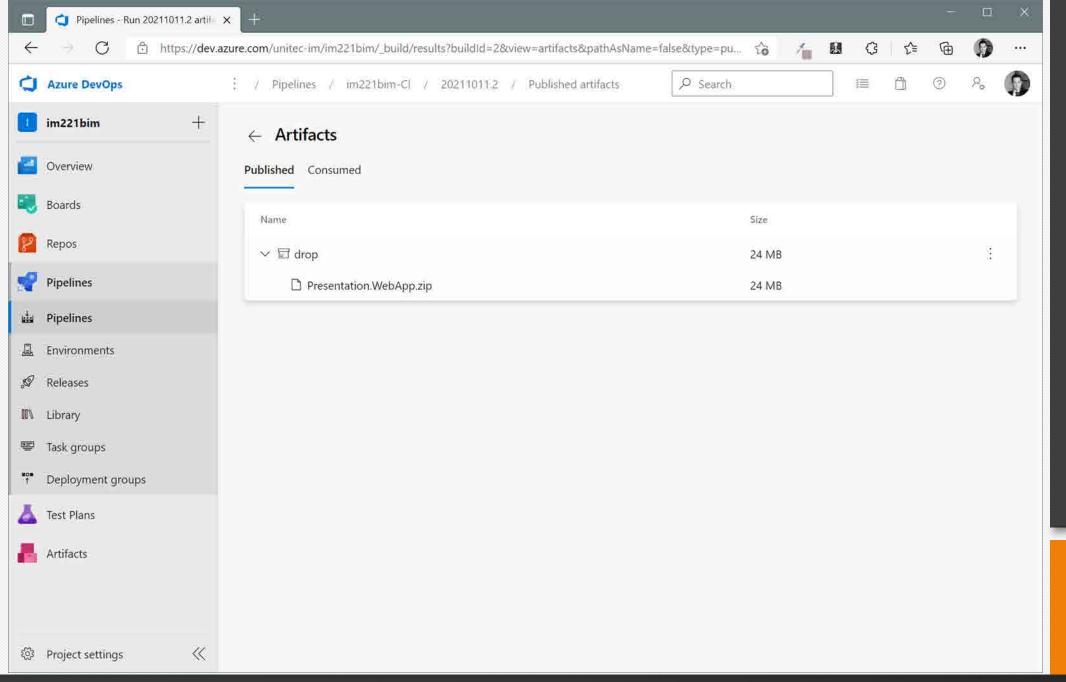
#### Build number format:

\$(date: yyyyMMld) \$(rev: . r)

Enabled > Automatically link new work in this build







# CD | Despliegue continuo

Azure DevOps Pipelines

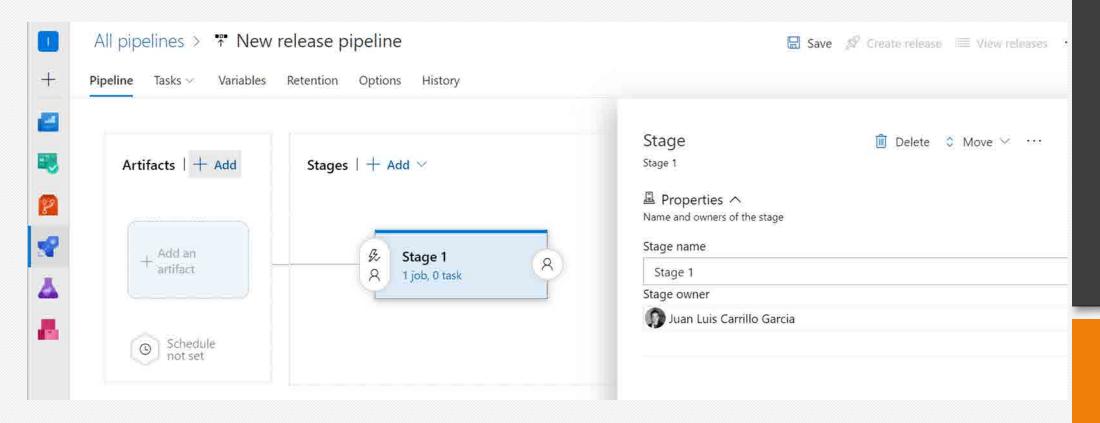
#### 1. TEMPLATE:

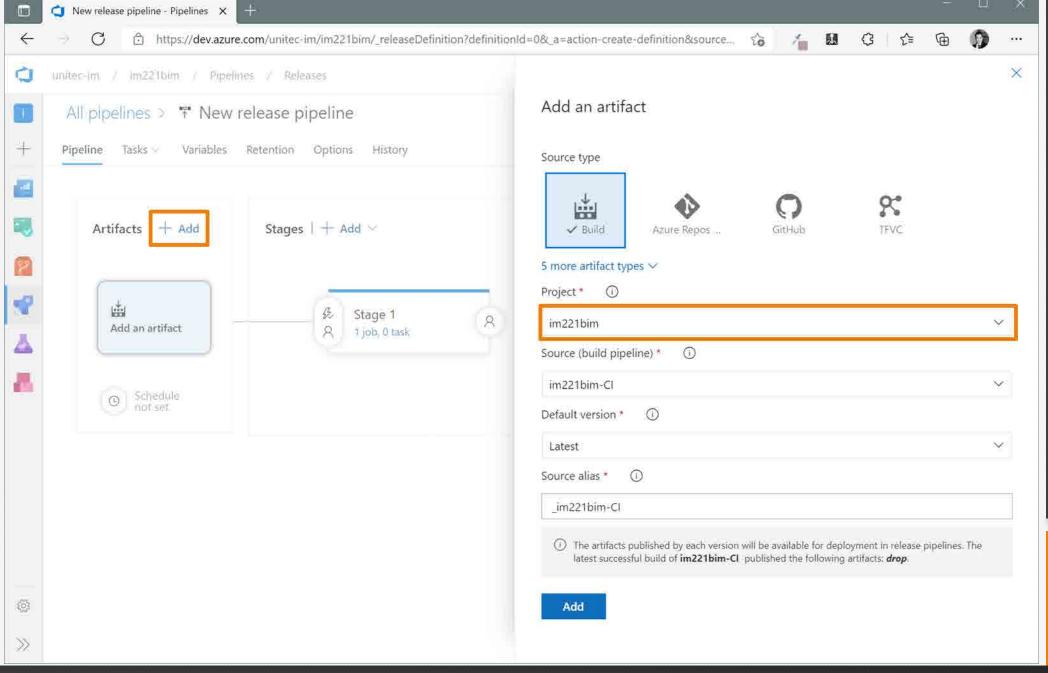
Or start with an **# Empty job** 

#### 2. AGENT JOB:

• Stage name: Stage 1

#### 3. ADD ARTIFACTS

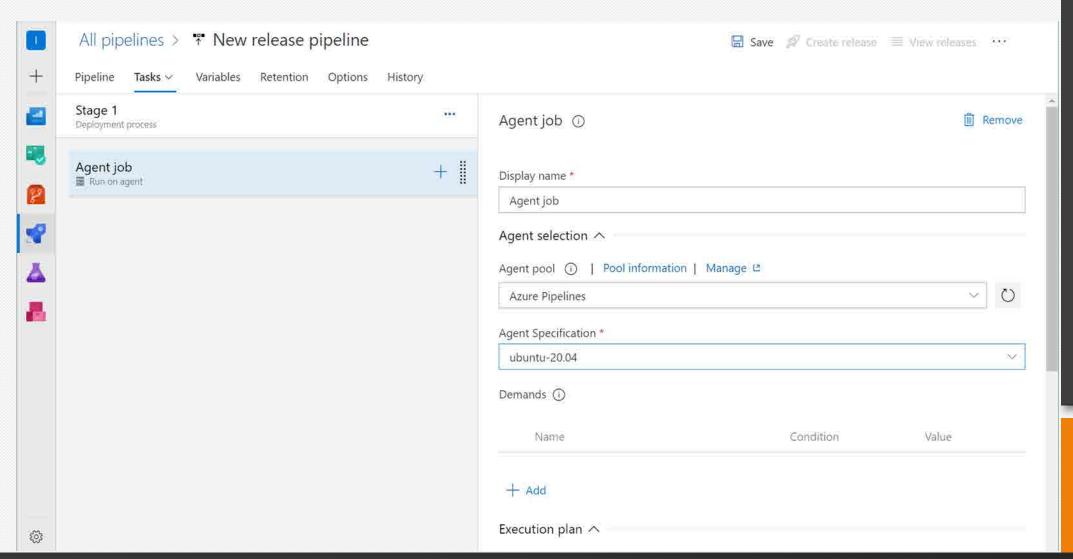


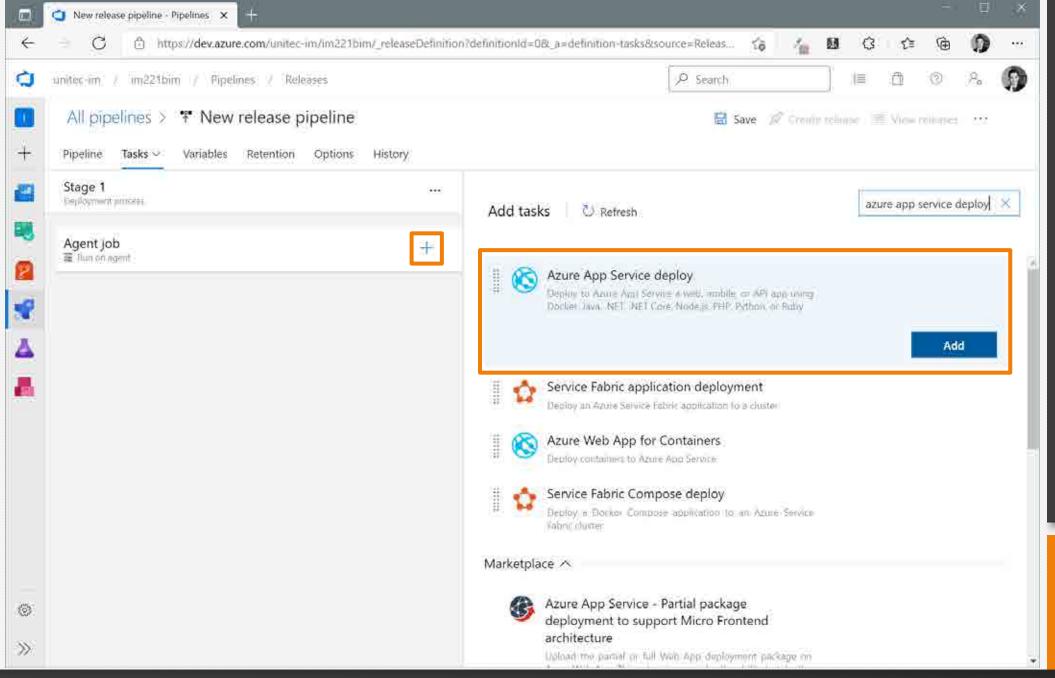


# Display name: Agent job

# Agent Specification:

ubuntu-20.04





### 1. TASK: Azure App Service Deploy

Stage 1

Deployment process

Deploy

Azure App Service deploy

Agent job

Run on agent

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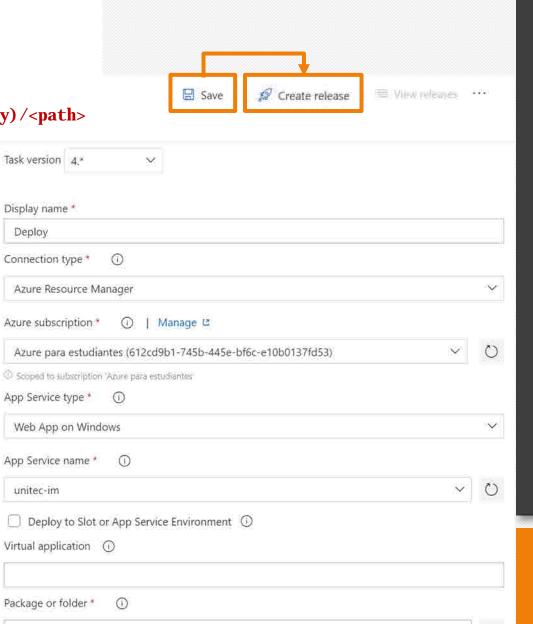
Task version: 4.\*

Display name: Azure App Service Deploy: deploy

Azure subscription: <subscription>

App Service name: <service>

Package or folder: \$(System DefaultWorkingDirectory)/<path>



...

\$(System.DefaultWorkingDirectory)/\_im221bim-Cl/drop/Presentation.WebApp.zip

0

