

TP4 - Pipelines

Manuel Romero Medina

4.1 Verificar acceso al pipeline concebido.

Name	Manuel Romero Medina
Email	2105277@ucc.edu.ar
Organization Name	https://dev.azure.com/manuromeromedina12345
Parallelism Type	Private
Public Repositories	https://dev.azure.com/manuromeromedina12345/Sample02/
Explanation	proyecto estudiantil
Note	According to our policy, we could grant you only private parallelism. We would encourage you to change the project visibility to Private on Project Settings page.
Rejection reason	This organization name have been granted permission before.Please confirm that your organization name is correct and go to Project Settings > Pipelines section > Parallel jobs page, is the Private/Public projects > Microsoft-hosted shows Free tier in your side?

4.2 Agregar en pipeline YAML una tarea de Publish.

Sample02 / azure-pipelines-1.yml

```
35
36 - task: DotNetCoreCLI@2
37   inputs:
38     command: publish
39     publishWebProjects: True
40     arguments: '--configuration $(buildConfiguration) --output $(Build.ArtifactStagingDirectory)'
41     zipAfterPublish: true
42
43 - task: PublishBuildArtifacts@1
44   inputs:
45     PathToPublish: '$(Build.ArtifactStagingDirectory)'
46     ArtifactName: 'drop'
47     publishLocation: 'Container'
48
49
50
```

Tasks

Search tasks

.NET Core

Build, test, package, or publish a dotnet applicatio...

Android signing

Sign and align Android APK files

Ant

Build with Apache Ant

App Center distribute

Distribute app builds to testers and users via Visu...

App Center test

Test app packages with Visual Studio App Center

Archive files

Compress files into .7z, .tar.gz, or .zip

Triggered by

Manuel Romero Medina

View 36 changes

Repository and version

Sample02

main 178a6325

Time started and elapsed

Just now

1m 26s

Related

0 work items

0 artifacts

Tests and coverage

Get started

4.3 - Explicar por qué es necesario contar con una tarea de Publish en un pipeline que corre en un agente de Microsoft en la nube.


La tarea de Publish es necesaria para que los artefactos generados durante el pipeline sean accesibles y puedan ser utilizados en otros contextos, y para proporcionar una mayor trazabilidad y control sobre los cambios realizados en el código.

4.4 Descargar el resultado del pipeline y correr localmente el software compilado.

← Artifacts

Published

Name	Size
drop	2 MB
SimpleWebAPI.deploy-readme.txt	4 KB
SimpleWebAPI.deploy.cmd	15 KB
SimpleWebAPI.Parameters.xml	320 B
SimpleWebAPI.SetParameters.xml	147 B
SimpleWebAPI.SourceManifest.xml	148 B
SimpleWebAPI.Up	2 MB

 drop

14/9/2024 22:44

Archivo WinRAR ZIP

1.365 KB

4.5 Habilitar el editor clásico de pipelines. Explicar las diferencias claves entre este tipo de editor y el editor YAML.

☐ Off

**Disable creation of classic build pipelines**  
No classic build pipelines can be created / imported. Existing ones will continue to work.

4.6 Crear un nuevo pipeline con el editor clásico. Descargar el resultado del pipeline y correr localmente el software compilado.

manuromeromina12345 / Sample02 / Pipelines

Search

Select your repository

Tell us where your sources are. You can customize how to get these sources from the repository later.

Select a source

Azure Repos Git

GitHub

GitHub Enterprise Server

Subversion

Bitbucket Cloud

Other Git

Team project

Sample02

Repository

Sample02

Default branch for manual and scheduled builds

main

Continue

Others

ASP.NET Core

Build and test an ASP.NET Core web application.

Apply

Sample02-ASP.NET Core-CI

Tasks

Variables

Triggers

Options

History

Save & queue

Discard

Summary

Queue

Pipeline

Build pipeline

Get sources

Sample02

main

Agent job 1

Run on agent

Restore

Build

Test

Publish

Publish Artifact

Name \*

Sample02-ASP.NET Core-CI

Agent pool

Pool information

Manage

Azure Pipelines

Agent Specification \*

windows-latest

Parameters

Unlink all

Project(s) to restore and build

\*\*/\*.csproj

Project(s) to test

\*\*/[T]ests/\*\*/\*.csproj

## #20240916.1 • Set up CI with Azure Pipelines

Sample02-ASP.NET Core-CI

Run new



ⓘ This run is being retained as one of 3 recent runs by main (Branch).

View retention leases

Summary Tests Code Coverage

Manually run by Manuel Romero Medina

View 36 changes

Repository and version

Sample02  
main 178a6325

Time started and elapsed

Today at 19:48  
2m 29s

Related

0 work items  
1 published; 1 consumed

Tests and coverage

100% passed  
0% covered

## 4.7 Configurar CI en ambos pipelines (YAML y Classic Editor). Mostrar resultados de la ejecución automática de ambos pipelines al hacer un commit en la rama main.

### Class Editor:

⋮ &gt; Sample02-ASP.NET Core-CI

Tasks Variables Triggers Options History Save &amp; queue Discard Summary Queue

Continuous integration

 Sample02  
Enabled

Scheduled

+ Add

No builds scheduled

Build completion

+ Add

Build when another build completes

Sample02

☒ Enable continuous integration☐ Batch changes while a build is in progress

Branch filters

Type

Include

Branch specification

main

+ Add

Path filters

+ Add

## #20240916.2 • Set up CI with Azure Pipelines

Sample02-ASP.NET Core-CI

Run new

ⓘ This run is being retained as one of 3 recent runs by main (Branch).

View retention leases

Summary Tests Code Coverage

### YAML:

&lt; Sample02 (2)

main

Sample02 / azure-pipelines-1.yml

```
1 # ASP.NET
2 # Build and test ASP.NET projects.
3 # Add steps that publish symbols, save build artifacts, deploy, and more:
4 # https://docs.microsoft.com/azure/devops/pipelines/apps/aspnet/build-aspnet-4
5
6 trigger:
7 - main
8
9 pool:
10 - vmImage: 'windows-latest'
11
12 variables:
13 - solution: '**/*.sln'
14 - buildPlatform: 'Any CPU'
```

## Pipeline settings

Processing of new run requests

☐ Enabled☐ Paused☒ Disabled

YAML file path

azure-pipelines-1.yml

☐ Automatically link work items included in this run

main

/ README.md

README.md

Contents Preview Highlight changes

```
1 # SimpleWebAPI
2
3 App Simple para demo
4
5
6 un checkin mas
7 2
8 otro
9 otro
10
11 Hola, cambio para el tp 3 repo git. chaaaaauu
12
13 cambio disable pipeline
14
```

Commit

Comment

Updated README.md

Branch name

main

Work items to link

Search work items by ID or title

Pipelines

Recent All Runs

Filter pipelines

Recently run pipelines

Pipeline	Last run
Sample02-ASPNET Core-CI	#20240916.4 • Updated README.md Individual CI for main 6m ago 2m 28s
Sample02	#20240916.1 • Updated README.md Individual CI for main 7m ago 13s
Sample02 (2)	#20240915.1 • Set up CI with Azure Pipelines Individual CI for main sábado 3m 28s

#### 4.8 Explicar la diferencia entre un agente MS y un agente Self-Hosted. Qué ventajas y desventajas hay entre ambos? Cuándo es conveniente y/o necesario usar un Self-Hosted Agent?

Diferencias entre Agente MS y Agente Self-Hosted:

Agente MS: proporcionado por Microsoft, fácil de configurar, no requiere mantenimiento, se actualiza automáticamente.

Ventajas: fácil de usar, no requiere mantenimiento.

Desventajas: no se puede personalizar, no se puede acceder a recursos locales.

Agente Self-Hosted: se ejecuta en una máquina local o virtual, requiere configuración y mantenimiento por el usuario.

Ventajas: se puede personalizar, se puede acceder a recursos locales.

Desventajas: requiere configuración y mantenimiento.

Cuándo usar un Self-Hosted Agent?

Se requiere acceso a recursos locales o a la red local. Se necesitan recursos específicos o personalizados. Se requiere una mayor flexibilidad y control sobre la configuración y el mantenimiento del agente.

### 4.8 Crear un Pool de Agentes y un Agente Self-Hosted

## Create a new personal access token ✕

Name

PAT

Organization

manuromeromedina12345

Expiration (UTC)

60 days

15/11/2024

Scopes

Authorize the scope of access associated with this token

Scopes ☒ Full access

☐ Custom defined

PAT Token: x26aurgw2v6m4hq3h5oev6nyyr7rfutpopclyua2kq73xldylucq

Sample02 / Settings / Agent pools

Agent pools

Name

Azure Pipelines

Azure Pipelines

Default

Azure Pipelines

Add agent pool

Agent pools are shared across an organization.

Pool to link:  
☒ New ☐ Existing

Pool type:  
Self-hosted

A pool of agents that you set up and manage on your own to run jobs. [Learn more.](#)

Name:  
MyPool

Description (optional):

Agent pools

Security Add pool

Name

Queued jobs

Running jobs

Azure Pipelines

Azure Pipelines

Default

Azure Pipelines

MyPool

Manuel Romero Medina

## 4.9 Instalar y correr un agente en nuestra máquina local.

Get the agent



Windows

macOS

Linux

x64

x86

### System prerequisites

#### Configure your account

Configure your account by following the steps outlined here.

#### Download the agent

Download



#### Create the agent

```
PS C:\> mkdir agent ; cd agent
PS C:\agent> Add-Type -AssemblyName System.IO.Compression.FileSystem ;
[System.IO.Compression.ZipFile]::ExtractToDirectory("$HOME\Downloads\vsts-
agent-win-x64-3.243.1.zip", "$PWD")
```

#### Configure the agent [Detailed instructions](#)

```
PS C:\agent> .\config.cmd
```

#### Optionally run the agent interactively

If you didn't run as a service above:

```

  _____
 /  Azure Pipelines
 \_____

agent v3.243.1                               (commit 3bb22cd)

>> Connect:
Enter server URL > https://dev.azure.com/manuromeromedina12345
Enter authentication type <press enter for PAT> >
Enter personal access token > ****
Connecting to server ...

>> Register Agent:
Enter agent pool <press enter for default> >
Enter agent name <press enter for DESKTOP-Q2953SE> > MiAgente1
Scanning for tool capabilities.
Connecting to the server.
Successfully added the agent
Testing agent connection.
Enter work folder <press enter for _work> >
2024-09-17 01:53:13Z: Settings Saved.
Enter run agent as service? <Y/N> <press enter for N> > Y
Enter enable SERVICE_SID_TYPE_UNRESTRICTED for agent service <Y/N> <press enter for N> > N
Enter User account to use for the service <press enter for NT AUTHORITY\Servicio de red> >
Granting file permissions to 'NT AUTHORITY\Servicio de red'.
Service vstsagent.manuromeromedina12345.Default.MiAgente1 successfully installed
Service vstsagent.manuromeromedina12345.Default.MiAgente1 successfully set recovery option
Service vstsagent.manuromeromedina12345.Default.MiAgente1 successfully set to delayed auto start
Service vstsagent.manuromeromedina12345.Default.MiAgente1 successfully configured
Enter whether to prevent service starting immediately after configuration is finished? <Y/N> <press enter for N> > Y

C:\Users\Manu\Desktop\INGENIERÍA EN SISTEMAS UCC\CUARTO AÑO\ING SOFT 3\ingsoft3\vsts-agent-win-x64-3.243.1>.run.cmd
```

```
Scanning for tool capabilities.
Connecting to the server.
2024-09-17 01:54:50Z: Listening for Jobs
```

Default

Update all agentsNew agent

JobsAgentsDetailsSecurityApprovals and checksAnalytics

Name	Last run	Current status	Agent version	Enabled
MiAgent1 ● Online		Idle	3.243.1	<div>On</div>

4.10 Crear un pipeline que use el agente Self-Hosted alojado en nuestra máquina local.

manuromeromedi12345 / Sample02 / Pipelines

Search

MM

Sample02-ASP.NET Core-CI (2) -SelfHosted

TasksVariablesTriggersOptionsHistory

Save & queueDiscardSummaryQueue

PipelineBuild pipeline

Get sourcesSample02main

Agent job 1Run on agent

Restore.NET CoreBuild.NET CoreTest.NET CorePublish.NET CorePublish ArtifactPublish build artifacts

Name \*Sample02-ASP.NET Core-CI (2) -SelfHosted

Agent pool

Pool informationManage

Default

Parameters

Unlink all

Project(s) to restore and build

\*\*/\*.csproj

Project(s) to test

\*\*/[Tt]ests/\*.csproj

```
C:\Windows\System32\agent>.\run.cmd
Scanning for tool capabilities.
Connecting to the server.
2024-09-17 01:11:00Z: Listening for Jobs
2024-09-17 01:13:06Z: Running job: Agent job 1
2024-09-17 01:13:50Z: Job Agent job 1 completed with result: Failed
```

#### 4.12 Crear un nuevo proyecto en ADO clonado desde un repo que contenga una aplicación en Angular como por ejemplo

<https://github.com/ingsoft3ucc/angular-demo-project.git>

The image shows the process of creating a new project in ADO and cloning it into VS Code.

**Create new project dialog:**

- Project name: TP04
- Description: (empty)
- Visibility: Private (selected)
- Advanced: (collapsed)
- Buttons: Cancel, Create

**VS Code interface:**

- Terminal: TP04 is empty. Add some code!
- Clone to your computer: HTTPS, SSH, Clone in VS Code
- Generate Git Credentials
- Import a Git repository dialog: Repository type: Git, Clone URL: https://github.com/ingsoft3ucc/angular-demo-project.git
- Files view: main branch, Type to find a file or folder...
- Contents view: List of files and their commit history.

Name	Last change	Commits
.vscode	28 abr	797d1087 initial commit fasilofficial
src	28 abr	436ab05d Added Google tag for monitoring fasilofficial
.editorconfig	28 abr	797d1087 initial commit fasilofficial
.gitignore	28 abr	797d1087 initial commit fasilofficial
angular.json	28 abr	045b02df First commit fasilofficial

#### 4.13 Configurar un pipeline de build para un proyecto de tipo Angular como el clonado.



✓ Connect

✓ Select

✓ Configure

**Review**

New pipeline

**Review your pipeline YAML**

VariablesSave and run

TP04 / azure-pipelines.yml

Show assistant

```
1 # Node.js with Angular
2 # Build a Node.js project that uses Angular.
3 # Add steps that analyze code, save build artifacts, deploy, and more:
4 # https://docs.microsoft.com/azure/devops/pipelines/languages/javascript
5
6 trigger:
7   - main
8
9 pool:
10  - vmImage: ubuntu-latest
```

Settings

```
- task: PublishBuildArtifacts@1
  inputs:
    PathToPublish: 'dist'
    ArtifactName: 'dist'
```

#20240917.2 • Set up CI with Azure Pipelines

Cancel

SummaryCode Coverage

Manually run by Manuel Romero Medina

View 7 changes

Repository and version	Time started and elapsed	Related	Tests and coverage
TP04	Just now	0 work items	Get started
main 7a37c9b2	2s	0 artifacts	

Jobs

Name	Status	Duration
Job	Queued	

## 4.14 Habilitar CI para el pipeline.

TP04

YAMLVariablesTriggersHistorySave & queueDiscardSummaryQueue

Continuous integration

TP04Enabled

Scheduled+ Add

No builds scheduled

Build completion+ Add

Build when another build completes

TP04

☒ Override the YAML continuous integration trigger from here

☐ Disable continuous integration

☒ Enable continuous integration

☐ Batch changes while a build is in progress

Branch filters

TypeIncludeBranch specificationmain

+ Add

Path filters

+ Add

4.15 Hacer un cambio a un archivo del proyecto (algún cambio en el HTML que se renderiza por ejemplo) y verificar que se ejecute automáticamente el pipeline.

main

/ src / app / header / header.component.html

header.component.html

Contents Preview Highlight changes

1 <header class='flex justify-between items-center h-20 py-1 px-4 md:px-10 bg-gray-300'>

2 <a href='/' class='text-2xl md:text-4xl font-bold'>AUTOS CARS.</a>

3 <a href='https://github.com/fasilofficial' class='text-xl hover:text-neutral-800 hover:underline'>

4 <img src='../assets/github-mark.svg' class='w-10 h-10 object-cover' />

5 </a>

6 </header>

7

Commit

Comment

Updated header.component.html

Branch name

main

Work items to link

Search work items by ID or title

#20240917.5 • Update azure-pipelines.yml for Azure Pipelines

Run new

This run is being retained as one of 3 recent runs by main (Branch).

View retention leases

Summary Code Coverage

Manually run by Manuel Romero Medina

View 9 changes

Repository and version

Time started and elapsed

Related

Tests and coverage

TP04

Today at 23:26

0 work items

Get started

main e1dbd996

1m 25s

1 published

Jobs

Name	Status	Duration
Job	Success	1m 15s


4.16 Descargar el resultado del pipeline y correr en un servidor web local el sitio construido.


Artifacts

Published


Name	Size
dist	3 MB
first-app	3 MB

4.17 Mostrar el antes y el después del cambio.


CARS. 




**Civic 2022, Honda**  
The Honda Civic is a line of cars manufactured by Honda.



**Accord 2023, Honda**  
The Honda Accord is a series of automobiles manufactured by Honda.





**Corolla 2022, Toyota**  
The Toyota Corolla is a line of subcompact and compact cars manufactured by Toyota.




**Camry 2023, Toyota**  
The Toyota Camry is an automobile sold internationally by the Japanese manufacturer Toyota.

```
C:\Users\Manu\Desktop\INGENIERÍA EN SISTEMAS UCC\CUARTO AÑO\ING SOFT 3\ingsoft3\dist\dist\first-app\server>node server.mjs
Node Express server listening on http://localhost:4000
```


AUTOS CARS. 




**Civic 2022, Honda**  
The Honda Civic is a line of cars manufactured by Honda.



**Accord 2023, Honda**  
The Honda Accord is a series of automobiles manufactured by Honda.



**Corolla 2022, Toyota**  
The Toyota Corolla is a line of subcompact and compact cars manufactured by Toyota.



**Camry 2023, Toyota**  
The Toyota Camry is an automobile sold internationally by the Japanese manufacturer Toyota.

