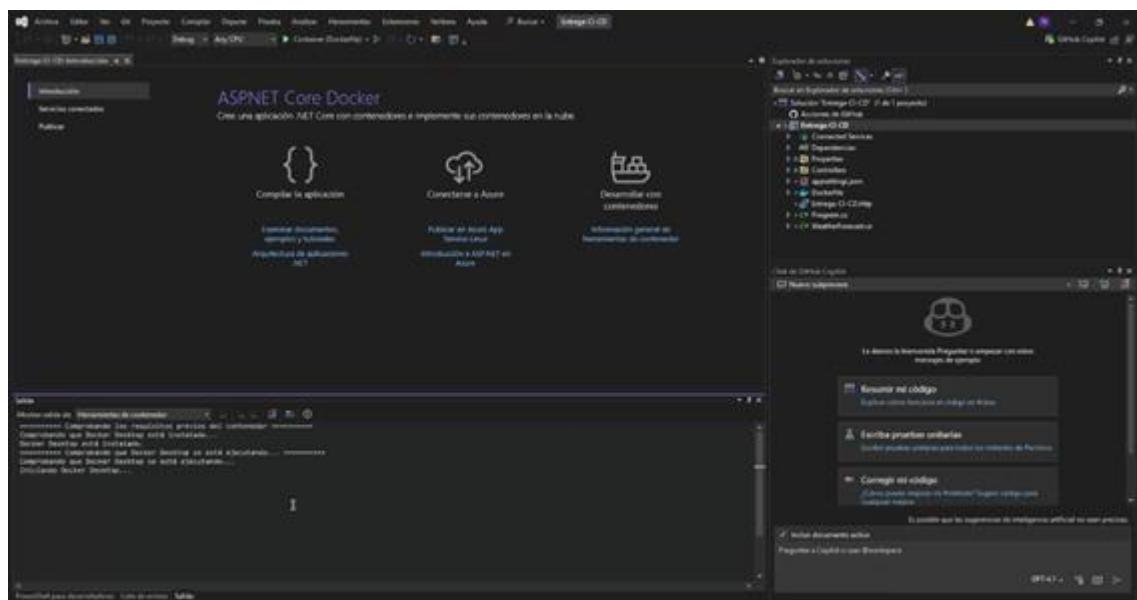


Práctica final - Integración Continua (CI)

Actividad 1: Integración Continua (CI)

1. Configuración del Proyecto - Crea un proyecto en Visual Studio 2022 con .NET Core
9. - Implementa una aplicación básica funcional (API, aplicación web, etc.).

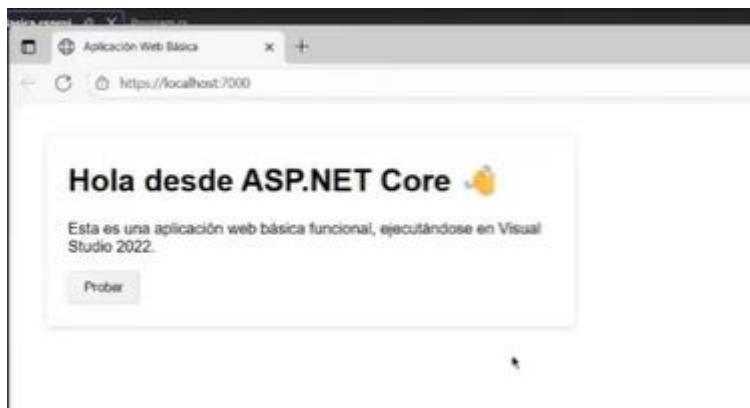


```
<Project Sdk="Microsoft.NET.Sdk.Web">

  <PropertyGroup>
    <TargetFramework>net9.0</TargetFramework>
    <Nullable>enable</Nullable>
    <ImplicitUsings>enable</ImplicitUsings>
  </PropertyGroup>

  <ItemGroup>
    <PackageReference Include="Microsoft.EntityFrameworkCore.Design" Version="9.0.0" />
    <PrivateAssets>all</PrivateAssets>
    <IncludeAssets>runtime; build; native; contentfiles; analyzers; buildtransitive</IncludeAssets>
  </ItemGroup>

</Project>
```



2. Control de Versiones - Usa un repositorio en GitHub y vincúlalo al proyecto. - Realiza múltiples commits significativos.

```
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create mode 100644 Entrega-CI-CD\obj\Entrega-CI-CD.csproj.nuget.g.targets
create mode 100644 Entrega-CI-CD\obj\project.assets.json
create mode 100644 Entrega-CI-CD\obj\project.nuget.cache
PS C:\Users\USER\Documents\Despliegue de software\Entrega-CI-CD> git push -u origin main
Enumerating objects: 54, done.
Counting objects: 100% (54/54), done.
Delta compression using up to 16 threads
Compressing objects: 100% (47/47), done.
Writing objects: 100% (54/54), 81.20 KiB | 4.27 MiB/s, done.
Total 54 (delta 3), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (3/3), done.
To https://github.com/Corosso/Entrega-Final-CI-CD.git
 * [new branch]      main -> main
branch 'main' set up to track 'origin/main'.
PS C:\Users\USER\Documents\Despliegue de software\Entrega-CI-CD> git add "azure-pipelines9.yml"
fatal: pathspec 'azure-pipelines9.yml' did not match any files
PS C:\Users\USER\Documents\Despliegue de software\Entrega-CI-CD>
```

-o- Commits on Nov 25, 2025

- Update azure-pipelines.yml for Azure Pipelines**
 - Corosso committed yesterday · 2 / 3
- hot fix**
 - Corosso authored yesterday · 0 / 2
- hotfix**
 - Inelo-684 committed yesterday · 0 / 2
- Instalación de paquetes**
 - Inelo-684 committed yesterday · 0 / 2
- Set up CI with Azure Pipelines**
 - Inelo-684 committed yesterday · 0 / 2
- Delete azure-pipelines9.yml**
 - Inelo-684 authored yesterday
- Delete azure-pipelines.yml**
 - Inelo-684 authored yesterday
- Set up CI with Azure Pipelines**
 - Inelo-684 committed yesterday · 0 / 1
- Set up CI with Azure Pipelines**
 - Corosso committed yesterday

-o- Commits on Nov 23, 2025

- Set up CI with Azure Pipelines**
 - Corosso committed 3 days ago
- yml Azure**
 - Stefany023 authored 3 days ago

-> verificación del Appservice dese Azure

The screenshot shows the Azure portal interface for the 'Entrega-5' resource group. On the left, there's a navigation sidebar with various options like 'Introducción', 'Control de acceso (IAM)', 'Etiquetas', etc. The main panel displays resource details under the 'Essentials' section. Key information includes:

- Grupo de recursos: Entrega-5-despliegue
- Estado: En ejecución
- Ubicación: Canadá Central
- Suscripción: Azure for Students
- Id. de suscripción: 8802077e-830c-4773-a664-467582c937ed
- Etiquetas: Agregar etiquetas

The 'Notificaciones' tab is selected, showing two notifications:

- Habilitar Application Insights: Habilite Application Insights para supervisar y crear perfiles de su aplicación. (Última vez que se produjo: miércoles, 26 de noviembre, 08:26:38 PM, Estado: Activado)
- Azure Front Door: Consider using Azure Front Door since your app receives incoming requests from multiple regions. (Más información, Última vez que se produjo: miércoles, 26 de noviembre, 08:26:38 PM, Estado: Activado)

At the bottom of the main panel, the URL 'entrega-5-e9g9nd5bwbddzfy.canadacentral-01.azurewebsites.net' is shown in a browser-like interface.

3. Pipeline CI en Azure DevOps - Configura un pipeline que compile el código automáticamente, ejecute pruebas (si las hay), y genere artefactos. - El pipeline debe activarse con cada cambio en la rama principal (main o master).

-> Creamos la organización

The screenshot shows the Azure DevOps interface for creating a new organization. On the left, a sidebar lists projects: 'Entrega-Final' (selected) and '+'. The main area is titled 'Entrega-Final' and features a cartoon illustration of a person working at a desk with a dog. A welcome message 'Welcome to the project!' is displayed, followed by a question 'What service would you like to start with?'. Below this, there are tabs for Boards, Repos, Pipelines, Test Plans, and Artifacts.

->Se llena el formulario para aprobación ya que Microsoft quitó el paralelismo por defecto, ahora hay que solicitarlo.

Azure DevOps Parallelism Request

This form is for users to request increased parallelism in Azure DevOps.

It can take several business days to process your free tier requests. During certain time periods, processing times might be longer.

1. What is your name? *

Stefany Builes lopera

2. What is your email address? *

stefanybuiles287828@correo.itm.edu.co

3. What is the name of your Azure DevOps Organization? *

(E.g. for <https://myorganization.visualstudio.com> or <https://dev.azure.com/myorganization> link formats - organization name would be 'myorganization')

<https://dev.azure.com/Despliegue-de-Software>

4. Are you requesting a parallelism increase for Public or Private projects? *

Private

Public

->Deshabilitar dos opciones que permitirán manejar el release para el próximo punto (CD)

The screenshot shows the 'Organization Settings' page for the 'Despliegue-de-Software' organization. The left sidebar lists various settings categories like General, Security, Boards, Pipelines, etc. The 'Pipelines' category is currently selected. On the right, under the 'General' tab, there are several toggle switches. Two specific ones are highlighted with a red border:

- Disable creation of classic build pipelines**: Set to Off. Description: No classic build pipelines can be created / imported. Existing ones will continue to work.
- Disable creation of classic release pipelines**: Set to Off. Description: No classic release pipelines, task groups, and deployment groups can be created / imported. Existing ones will continue to work.

-> Seleccionar pipelines -> crear nuevo pipeline

The screenshot shows the Azure DevOps Pipelines interface. The left sidebar has a 'Pipelines' section with several options: Overview, Boards, Repos, Pipelines, Environments, Library, Test Plans, and Artifacts. The 'Pipelines' option is selected and highlighted with a red box. The main area displays a 'Create your first Pipeline' wizard with a cartoon illustration of a person and a cat working on a laptop. Below the illustration, the text reads: 'Automate your build and release processes using our wizard, and go from code to cloud-hosted within minutes.' A blue 'Create Pipeline' button is at the bottom right of the wizard, also highlighted with a red box.

-> se escoge opción del repositorio

The screenshot shows the 'Where is your code?' selection screen. The left sidebar has the same 'Pipelines' section as the previous screenshot. The main area has tabs: Connect, Select, Configure, and Review. The 'Select' tab is active. It lists three options: 'Azure Repos Git' (YAML), 'GitHub' (YAML), and 'Bitbucket Cloud' (YAML). The 'GitHub' option is highlighted with a red box. A 'More options' dropdown is visible on the right side.

-> se escoge el repositorio creado

The screenshot shows the Azure DevOps interface. On the left, there's a sidebar with various navigation options: Overview, Boards, Repos, Pipelines, Pipelines, Environments, Library, Test Plans, and Artifacts. The 'Pipelines' option is currently selected. To the right, under 'New pipeline', the title 'Select a repository' is displayed. Below it is a search bar with the placeholder 'Filter by keywords' and a dropdown menu labeled 'My repositories'. A list of repositories is shown, each with a small profile picture, the repository name, and a status indicator (e.g., 'private', 'domingo', 'viernes'). The repository 'Inekx-684/EntregaFinalDespliegue' is highlighted with a red box around its row.

-> Seleccionar save and run

The screenshot shows the 'Review your pipeline YAML' screen. At the top, it says 'New pipeline' and 'Review your pipeline YAML'. On the right, there are buttons for 'Variables', 'Save and run' (which is highlighted with a blue background), and 'Show assistant'. The main area contains the YAML code for the pipeline:

```
0 Inekx-684/EntregaFinalDespliegue / azure-pipelines.yml * ⓘ
1 # ASP.NET Core 9 - Build & Publish
2 # Para cuentas gratis de App Service usar --runtime win-x64
3
4 trigger:
5   - main
6
7 pool:
8   vmImage: 'windows-latest'
9
10 variables:
11   buildConfiguration: 'Release'
12   proyecto: Veterinary-API/Veterinary-API.csproj
13
14 steps:
15   - task: UseDotNet@2
16     displayName: 'Instalar .NET SDK 9'
17     inputs:
18       packageType: 'sdk'
19       # Usa siempre la última 9.0.x disponible en el agente
20       version: '9.0.x'
21       includePreviewVersions: false
22
23   - script: dotnet --info
24     displayName: 'Información de .NET'
25
26   - script: dotnet restore $(proyecto)
27     displayName: 'dotnet restore'
28
29   - script: dotnet build --configuration ${buildConfiguration} ${proyecto} --no-restore
30     displayName: 'dotnet build ${buildConfiguration}'
31
```

-> Se valida terminación del proceso del Job

The screenshot shows a table titled 'Jobs'. It has columns for 'Name', 'Status', and 'Duration'. There is one entry in the table:

Name	Status	Duration
Job	Success	2m 3s

Jobs

- Job (2m 3s)
 - Initialize job (9s)
 - Checkout Inekx-684/EntregaFinalDespliegue (6s)
 - Instalar .NET SDK 9 (24s)
 - Información de .NET (2s)
 - dotnet restore (3s)
 - dotnet build Release (20s)
 - Instalar EF Core CLI 9 (3s)
 - Publicar aplicación (12s)
 - Publicar artefactos (38s)
 - Post-job: Checkout Inekx-684/EntregaFinalDespliegue (<1s)
 - Finalize Job (<1s)

Job

```

1 Pool: Azure Pipelines
2 Image: windows-latest
3 Queued: Today at 20:44 (single_parallel_jobs)
4 Agent: Hosted Agent
5 Started: Today at 20:44
6 Duration: 2m 3s
7
8 The agent request is already running or has already completed.
9 > Job preparation parameters
44   ↳ 1_artifact produced
45 Job live console data:
46 Starting: Job
47 Async Command Start: DetectDockerContainer
48 Async Command End: DetectDockerContainer
49 Async Command Start: DetectDockerContainer
50 Async Command End: DetectDockerContainer
51 Finishing: Job
  
```

-> se realiza varios commit

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```

to set your account's default identity.
Commit --global to set the identity only in this repository.

Fatal: unable to auto-detect email address (got 'ASUS@Desktop-de-Sofia.(none)')
PS C:\Users\ASUS\source\repos\EntregaFinalDespliegue> git config --global user.email "sofiaortizserna684@gmail.com"
PS C:\Users\ASUS\source\repos\EntregaFinalDespliegue> git commit -m "Instalación de paquetes"
  
```

Lista de errores PowerShell para desarrolladores

PowerShell para desarrolladores

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```

create mode 100644 WebBasica/obj/Release/net9.0/WebBasica.AssemblyInfo.cs
create mode 100644 WebBasica/obj/Release/net9.0/WebBasica.AssemblyInfoInputs.cache
create mode 100644 WebBasica/obj/Release/net9.0/WebBasica.GeneratedMSBuildEditorConfig.editorconfig
create mode 100644 WebBasica/obj/Release/net9.0/WebBasica.GlobalUsings.g.cs
create mode 100644 WebBasica/obj/Release/net9.0/WebBasica.assets.cache
PS C:\Users\ASUS\source\repos\EntregaFinalDespliegue> git push origin main
  
```

Lista de errores PowerShell para desarrolladores

Listo

← Inelx-684.EntregaFinalDespliegue (3)

Runs Branches Analytics

Description	Stages
#20251126.3 • Instalación de paquetes Manually run by main 9c457e9b	
#20251126.2 • Instalación de paquetes Individual CI for main 9c457e9b	
#20251126.1 • Set up CI with Azure Pipelines Individual CI for main 5f8d58d6	

migration, please refer to the blog on Windows and Mac

← Jobs in run #20251126.2
Inelx-684.EntregaFinalDespliegue (3)

Jobs

- Job 1m 2s
 - Initialize job 11s
 - Checkout Inelx-684/En... 6s
 - Instalar .NET SDK 9 37s
 - Información de .NET 3s
 - dotnet restore 2s
 - dotnet build Release
 - Instalar EF Core CLI 9
 - Generar script de BD
 - Publicar aplicación

dotnet restore

```

1 Starting: dotnet restore
2 -----
3 Task      : Command line
4 Description : Run a command line script using Bash on Linux and macOS and cmd.exe on Windows
5 Version   : 2.250.1
6 Author    : Microsoft Corporation
7 Help      : https://docs.microsoft.com/azure/devops/pipelines/tasks/utility/command-line
8 -----
9 Generating script.
10 Script contents: shell
11 dotnet restore WebBasica/WebBasica.csproj
12 -----
13 "C:\Windows\system32\cmd.exe" /D /E:ON /V:OFF /S /C "CALL "D:\a\_temp\b075b6cd-aa62-4c2e-ab19-28e19d7cf763.cmd"

```

Problemas

- 1- Luego de 48 horas de mandar la solicitud de aprobación a Microsoft, No se contaba con permisos para la ejecución del pipeline

← Jobs in run #20251123.1
Corosso.Entrega-Final-CI-CD

Jobs

- Job


```

1 ##[error]No hosted parallelism has been purchased or granted. To request a free parallelism grant, please fill out the following form https://aka.ms/azpipelines-parallelism-request
2 Pool: Azure Pipelines
3 Image: windows-latest
4 Started: Today at 11:57
5 Duration: 6m 47s
6
7 * Job preparation parameters
8 ContinueOnError: False
9 TimeoutInMinutes: 60
10 CancelTimeoutInMinutes: 5
11 Expand:

```

extension. After these dates, any pipelines using these images will fail, so it is important to migrate to supported images in advance. For details on the brownout schedule and guidance on migration, please refer to the blog on [Windows](#) and [Mac](#)

#20251126.1 • Set up CI with Azure Pipelines

Inekx-684.EntregaFinalDespliegue

[Cancel](#) [⋮](#)

[Summary](#) [Code Coverage](#)

Individual CI by  Inekx-684

Repository and version
Inekx-684/EntregaFinalDespliegue
main → d906fa6f

Time started and elapsed
Just now

Related
0 work items

Tests and coverage
Get started

0 artifacts

Jobs

Name	Status	Duration
 Job	Queued	

2- En ejecución del Job del pipeline: presentaba problemas con un paquete Nuget en el cual la solución fue instalar la versión compatible 9.0.0

← Jobs in run #20251126.1

Jobs

Job	Duration
 Job	1m 14s
 Initialize job	8s
 Checkout Inekx-684/En...	3s
 Instalar .NET SDK 9	25s
 Información de .NET	2s
 dotnet restore	4s
 dotnet build Release	18s
 Instalar EF Core CLU 9	3s
 Generar script de BD	6s
 Publicar aplicación	<1s

 Generar script de BD

View raw log

```

1 Starting: Generar script de BD
2 -----
3 Task      : Command line
4 Description : Run a command line script using Bash on Linux and macOS and cmd.exe on Windows
5 Version   : 2.250.1
6 Author    : Microsoft Corporation
7 Help      : https://docs.microsoft.com/azure/devops/pipelines/tasks/utility/command-line
8 -----
9 Generating script.
10 Script contents: shell
11 dotnet ef migrations script -i -o "D:\a\1\a\migrate.sql" --project "WebBasica/WebBasica.csproj"
12 ===== Starting Command Output =====
13 "C:\Windows\system32\cmd.exe" /D /E:ON /V:OFF /S /C "CALL "D:\a\_temp\eb6cd115-3702-4ffd-b372-25477a9d3cfa.cmd""
14 Build started...
15 Build succeeded.
16 Your startup project 'WebBasica' doesn't reference Microsoft.EntityFrameworkCore.Design. This package is required for the Entity Frame
17 #[error]Cmd.exe exited with code "1".
18 Finishing: Generar script de BD

```