**GitHub Actions**

**Ej1:**

*Workflows*[*run*](https://help.github.com/en/actions/reference/events-that-trigger-workflows)*when a specific activity happens on GitHub, at a scheduled time, or when an event outside of GitHub occurs.*

*Every workflow declares which event should trigger it by setting on to a string identifying an event.*

*To get started, let's run this workflow whenever the push event occurs.*

Texto

Descripción generada automáticamente con confianza baja

**Ej2:**

Workflows can also run when any of multiple events occur.

Currently this workflow runs on every push, update it so that it also runs whenever any of the issues in the repository is modified.

Patrón de fondo

Descripción generada automáticamente

**Ej3:**

We have seen that workflows can run when a single event, or when one of multiple events happens. It is also possible to limit workflow execution to certain branches or tags.

This workflow should run only when a pull\_request to the master branch is opened.

Interfaz de usuario gráfica

Descripción generada automáticamente con confianza media

**Ej4:**

Many events on GitHub can be further scoped down to certain activities. For example, you might want to run a workflow whenever an issue is created, but not when it's pinned, or a label is added (labeled), or it's transferred.

Events that support narrowing down the activities, accept a types property.

Run the following workflow whenever one of the issues is opened or labeled but not when it's closed

Interfaz de usuario gráfica, Texto, Aplicación

Descripción generada automáticamente

**Ej5:**

In addition to filtering by activities and branches you can also run workflows when specific files are changed - or not - with the paths and paths-ignore properties.

For this lesson, a workflow to optimize images should be run whenever a push to the repository includes .jpg files in the photos directory and not, when pictures are pushed in other locations.

Interfaz de usuario gráfica, Aplicación

Descripción generada automáticamente

**Ej6:**

So far our workflows have just echo'd "Success!". That's great but doesn't provide that much value. Often you want build some code, or deploy a service. With run steps you can execute arbitrary shell commands.

As an example, let's have our workflow execute the ./scriptDeploy.sh shell script.

Imagen que contiene Interfaz de usuario gráfica

Descripción generada automáticamente

**Ej7:**

In most cases you want to do something with the content of your repository. To get a copy of the repository you can use the actions/checkout action.

Add a uses step that uses actions/checkout version v3:

Interfaz de usuario gráfica, Aplicación

Descripción generada automáticamente

**Ej8:**

GitHub Actions provides hosted runners for Windows, Linux, and MacOS. For every job, you can specify where it should run with the runs-on property.

So far, all workflows ran on the latest version of Ubuntu, let's update this workflow to run on the latest version of Windows.

Imagen que contiene Forma

Descripción generada automáticamente

**Ej9:**

Secrets are encrypted environment variables that you create in a repository or organization. The secrets you create are then available to use in GitHub Actions workflows.

They are automatically masked in logs and are the safest way or providing keys or deployment tokens to your workflows. They can be accessed using the secrets context from an expression:

For this lesson, replace the hard-coded cloud token with a secret called DEPLOYMENT\_KEY

Texto

Descripción generada automáticamente

**Ej10:**

Sometimes you want to run jobs only when certain conditions are met. You can use an if expression to skip and not run jobs.

Update this workflow to only deploy when a change is pushed to the production branch.

*Hint*: the ref is available in the github context.

Texto

Descripción generada automáticamente

**Ej11:**

Sometimes you also want to skip certain steps. Use an if expression to run build.sh only when the current ref is refs/heads/master.

Texto

Descripción generada automáticamente

**Ej12:**

Often you need to build or test different combinations of operating systems or libraries. You could write individual workflows jobs, or define a single job with a matrix strategy.

The following job needs to build the frontend and backend component for versions 8, 10, and 12. Complete the matrix.

Texto

Descripción generada automáticamente

**Ej13:**

You can also use the matrix context in others expressions. The following workflow should run on Windows, Linux, and MacOS but currently everything is run on Linux.

Update it so that the correct runners are used

Texto

Descripción generada automáticamente