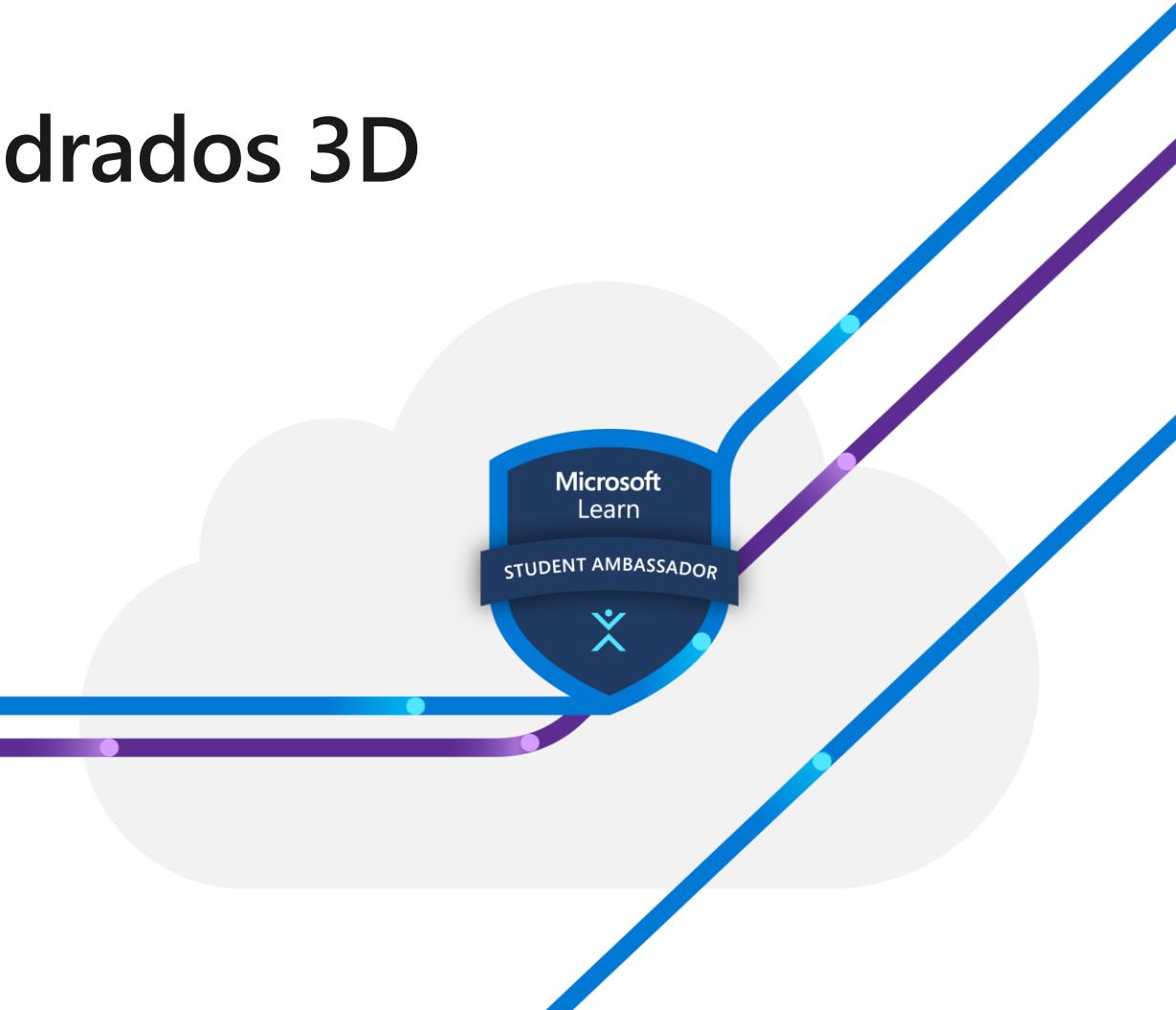


# Modelando Objetos con Cuadrados 3D Con Blender

- Fernandez Flores Yersson Harold



# Introducción a Blender

## ¿Qué es Blender?

- Es un software de código abierto y gratuito
- Se utiliza para modelado 3D, animación, renderizado, simulación y edición de video.
- Es una herramienta utilizada tanto por profesionales como por entusiastas del 3D para crear contenido en diversas industrias como el cine, videojuegos y diseño.



# Aplicaciones y Usos de Blender

Este software es utilizado en varios entornos como ser:

- **Cine y Animación:** Creación de películas animadas y efectos visuales.
- **Videojuegos:** Diseño y desarrollo de personajes, escenarios y objetos para videojuegos.
- **Arquitectura:** Modelado de edificios y estructuras en 3D.
- **Impresión 3D:** Diseño de objetos para impresión 3D.
- **Realidad Aumentada y Virtual:** Creación de entornos y experiencias inmersivas.



# Aplicaciones y Usos de Blender

Cine y Animación



Videojuegos



Arquitectura



Impresión 3D



Realidad Aumentada y Virtual



# Fusion 360?

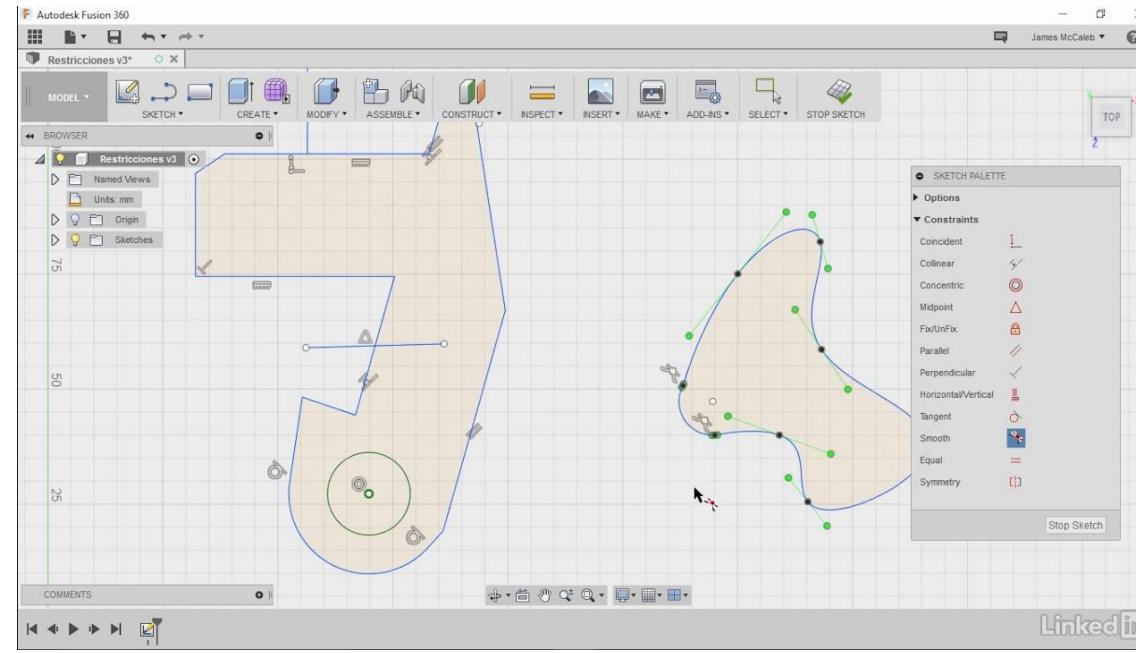
El software Fusion 360

- Autodesk Fusion 360 es un software de diseño, ingeniería, electrónica y fabricación basado en la nube.
- Integra CAD 3D, CAM, CAE y PCB:
  - CAD (Computer-Aided Design)
  - CAM (Computer-Aided Manufacturing)
  - CAE (Computer-Aided Engineering)
  - PCB (Printed Circuit Board)



# Fusion 360

Fusion 360 permite desarrollar productos desde la fase conceptual hasta la verificación de diseños y la fabricación, tanto con herramientas tradicionales como con herramientas de fabricación digital como la impresión 3D.



# Fusion 360 o Blender?

## Blender

**Pros:** Gratuito, potente en animación y efectos visuales, flexible para múltiples industrias.

**Contras:** Curva de aprendizaje alta, limitado para ingeniería y fabricación.

## Fusion 360

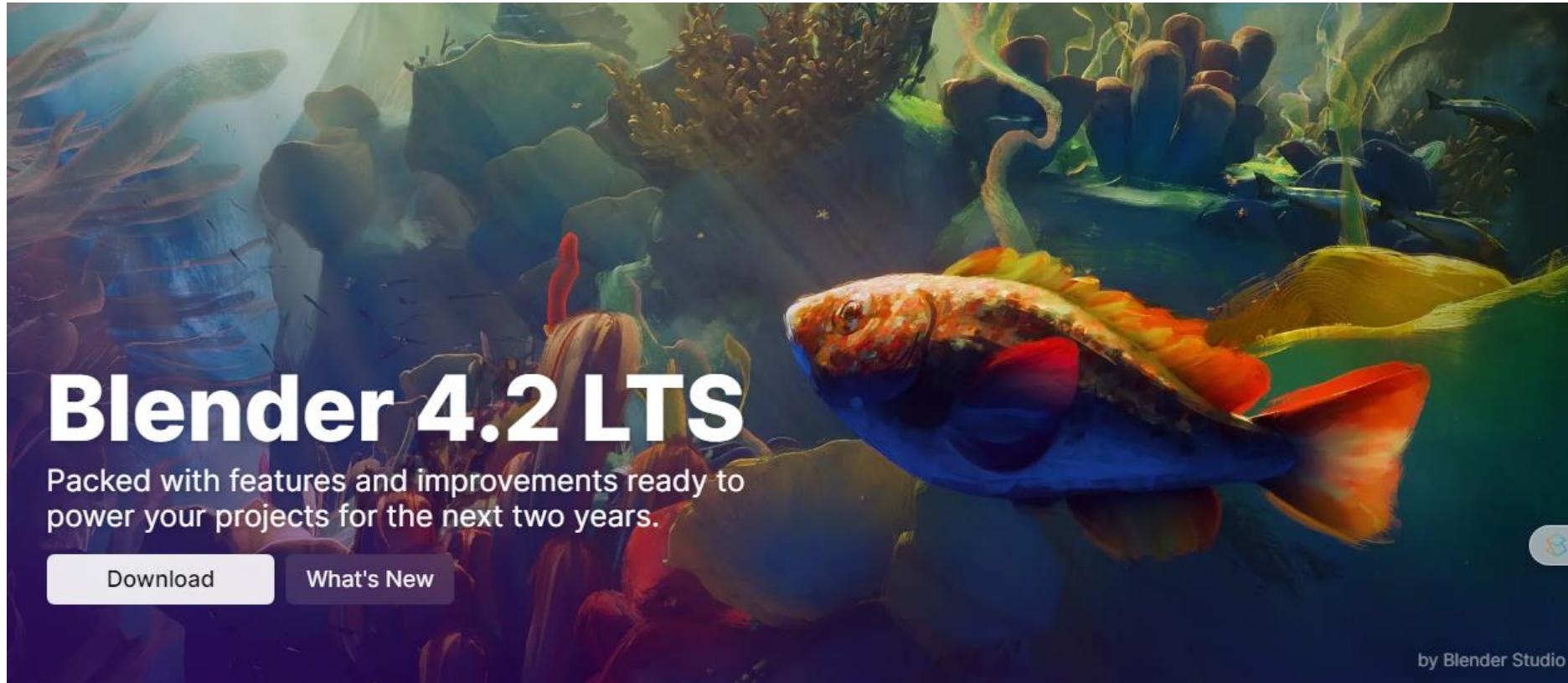
**Pros:** Herramienta CAD especializada, ideal para ingeniería, diseño de productos y simulación.

**Contras:** Requiere suscripción, menos flexible para animación y efectos visuales.



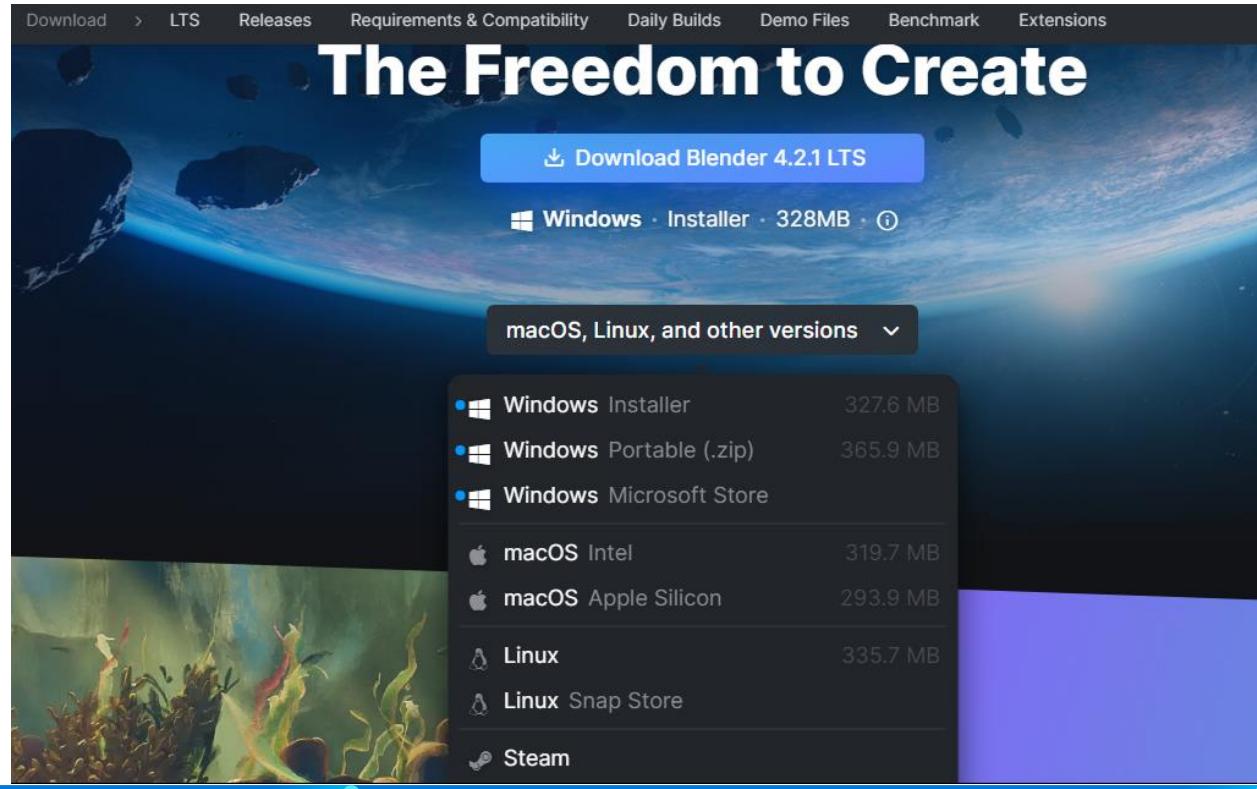
# Cómo Descargar e Instalar Blender

Ve a la página oficial: [www.blender.org](http://www.blender.org).



# Cómo Descargar e Instalar Blender

Selecciona la versión compatible con tu sistema operativo (Windows, macOS o Linux).



# Cómo Descargar e Instalar Blender

## Requerimientos para Blender 4.x.

### ▼ Windows

Minimum	Recommended
OS Windows 8.1 (64-bit)	Windows 10 or Windows 11
CPU 4 cores with SSE4.2 support	8 cores
RAM 8 GB	32 GB
GPU 2 GB VRAM with OpenGL 4.3 (see below)	8 GB VRAM

NVIDIA: [GeForce](#) 400 and newer, Quadro Tesla GPU architecture and newer, including [RTX-based](#) cards, with NVIDIA drivers.

AMD: [GCN 1st gen](#) and newer.

Intel: [Broadwell](#) architecture and newer. Always make sure to install the latest drivers from the graphics card manufacturer website.

# Cómo Descargar e Instalar Blender

## Requerimientos para otras versiones Blender

### Windows

- [Blender 3.6](#) supports **OpenGL 3.3**
- [Blender 2.92](#) supports **Windows 7**
- [Blender 2.90](#) supports **AMD Terascale 2** graphics cards
- [Blender 2.79](#) supports **OpenGL 2.1**
- [Blender 2.76](#) supports **Windows XP** and **OpenGL 1.4**

### Linux

- [Blender 3.6](#) supports **OpenGL 3.3**
- [Blender 3.4](#) supports **glibc 2.17** (RHEL 7)
- [Blender 2.90](#) supports **AMD Terascale 2** graphics cards
- [Blender 2.79](#) supports **OpenGL 2.1**
- [Blender 2.76](#) supports **OpenGL 1.4**

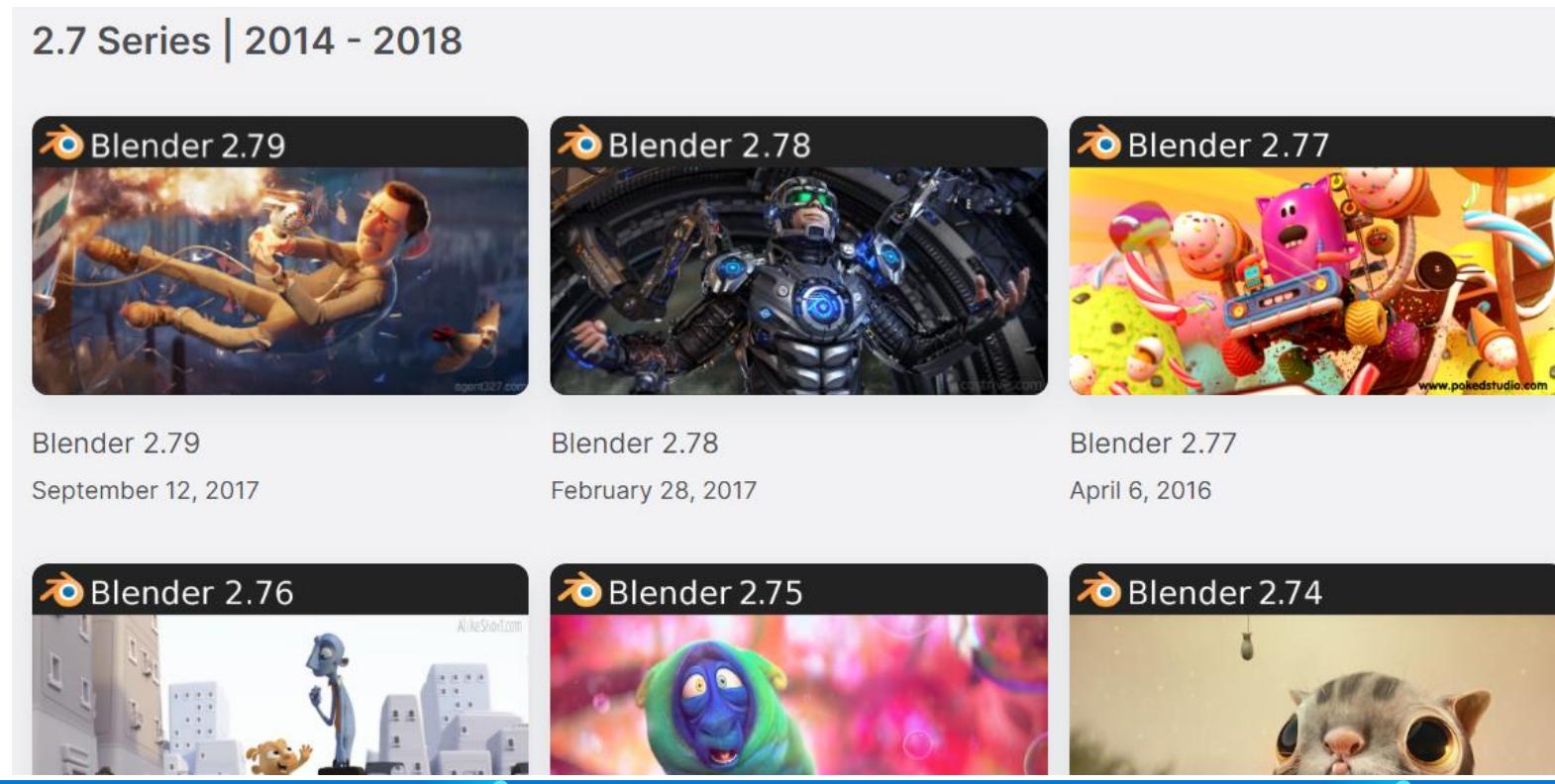
### macOS

- [Blender 3.6](#) supports **macOS 10.15** and **Intel Broadwell** graphics cards
- [Blender 3.4](#) supports **macOS 10.13**
- [Blender 2.83](#) supports **macOS 10.12**
- [Blender 2.79](#) supports **macOS 10.9**

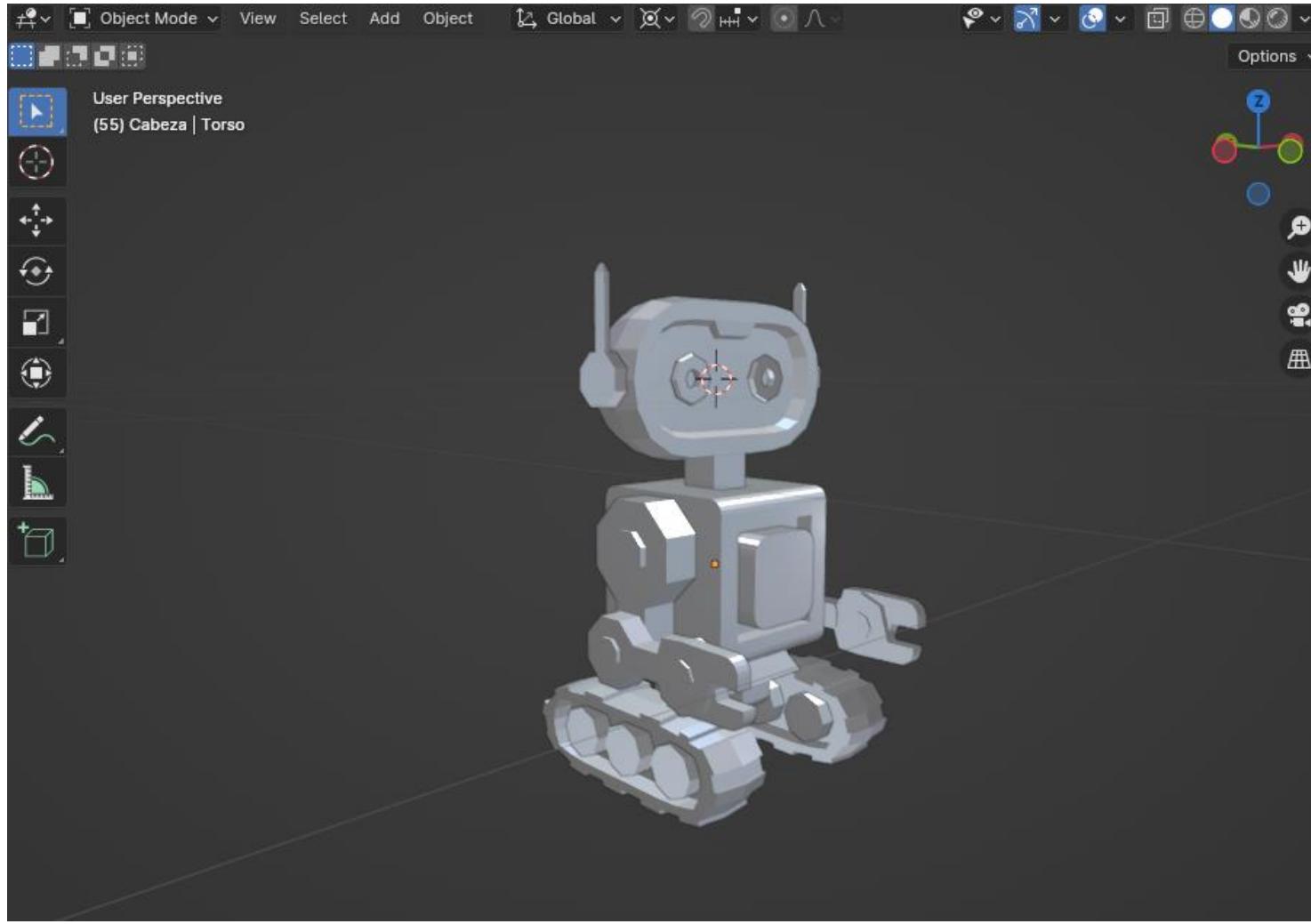
# Cómo Descargar e Instalar Blender

Si tu PC/Laptop no cumple con los requerimientos no te preocupes.

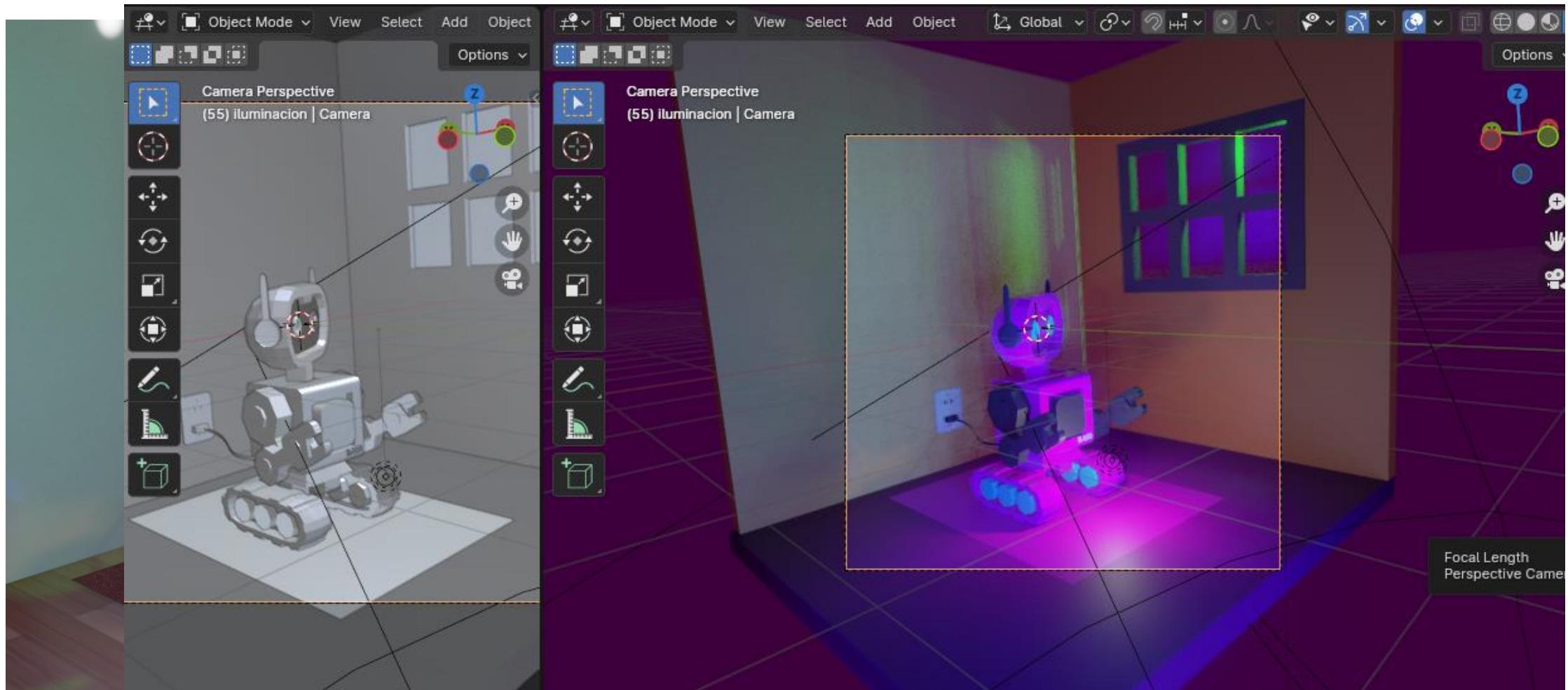
<https://www.blender.org/download/previous-versions/>



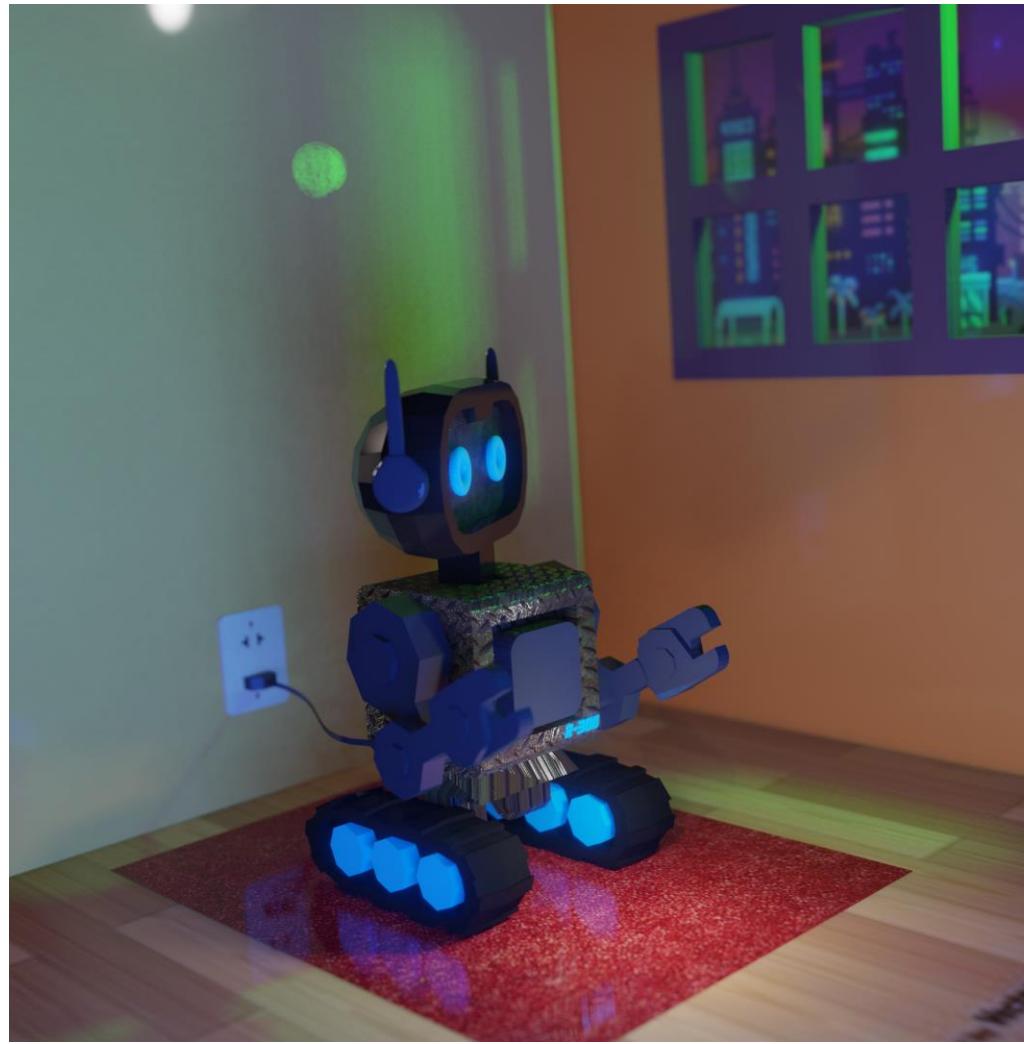
# Diseños echos en Blender



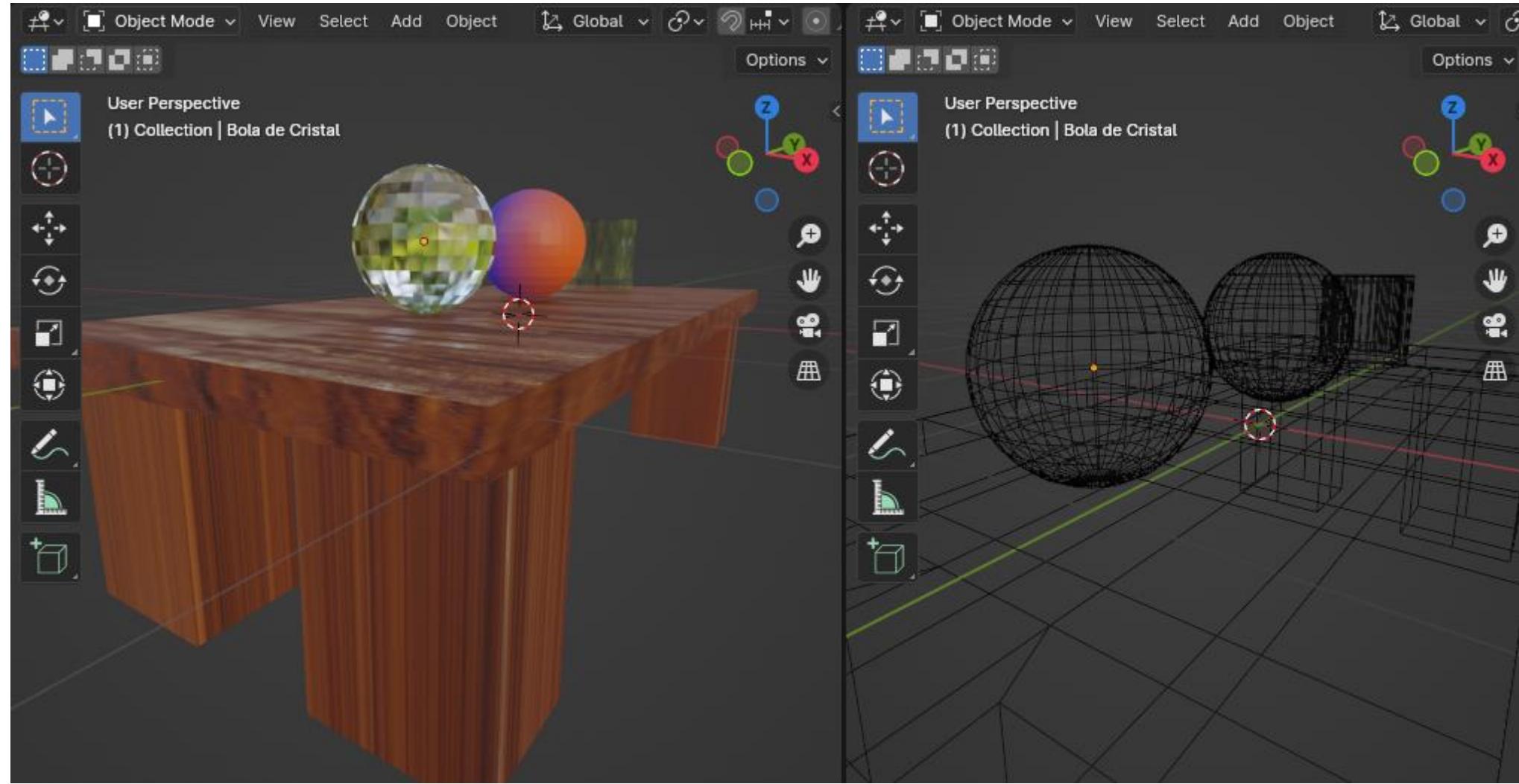
# Diseños echos en Blender



# Diseños echos en Blender



# Diseños echos en Blender



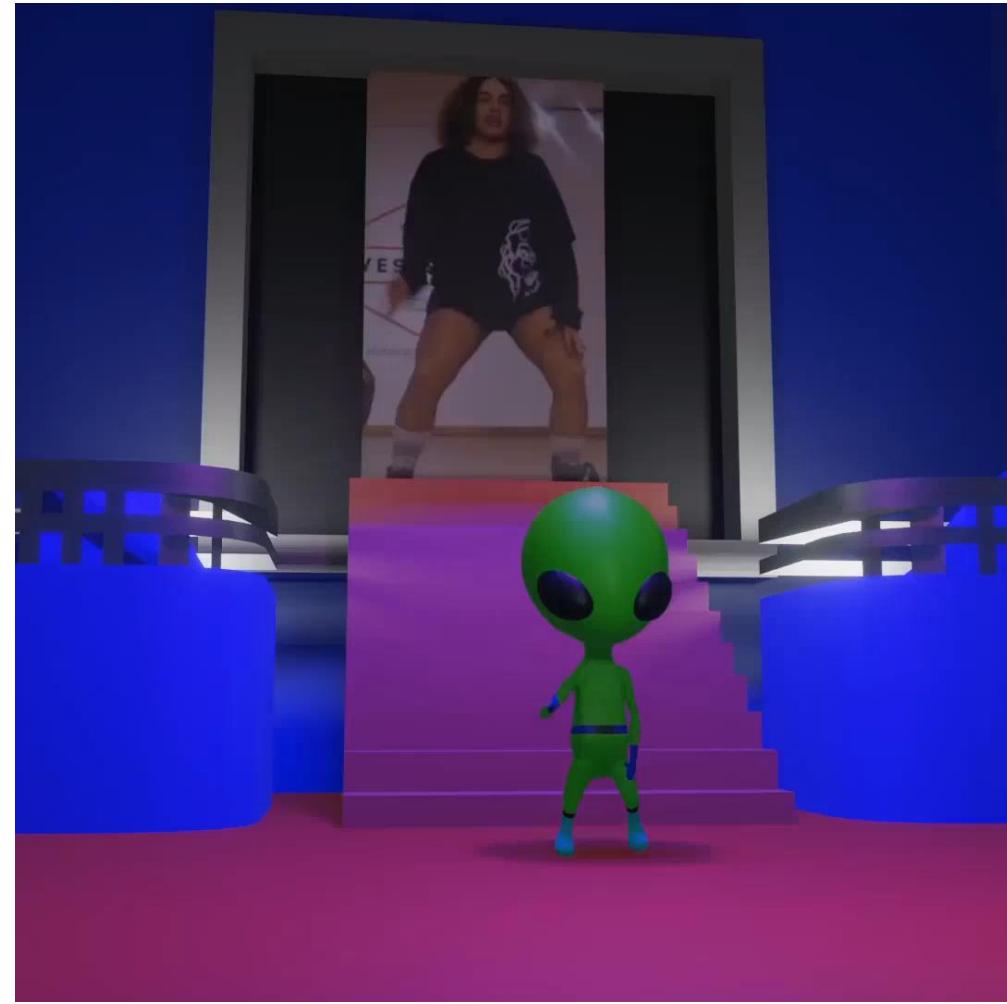
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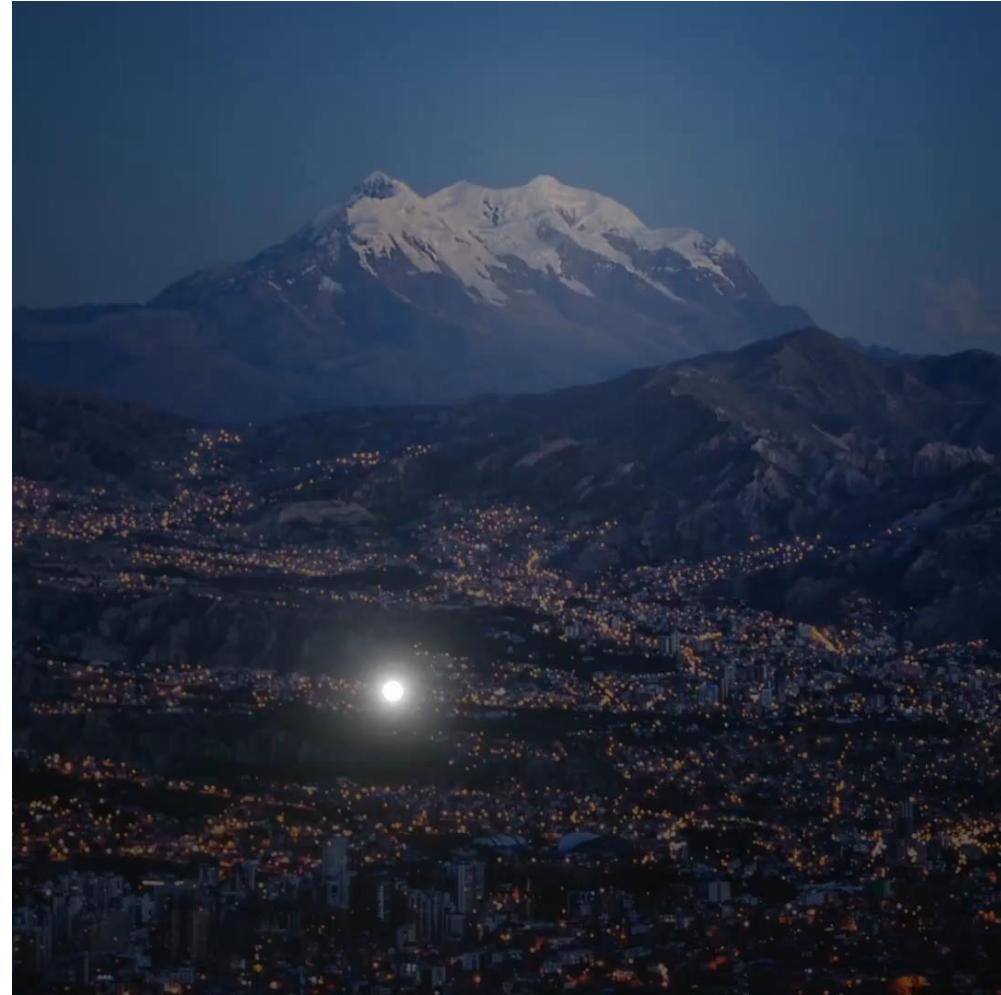
# Diseños echos en Blender

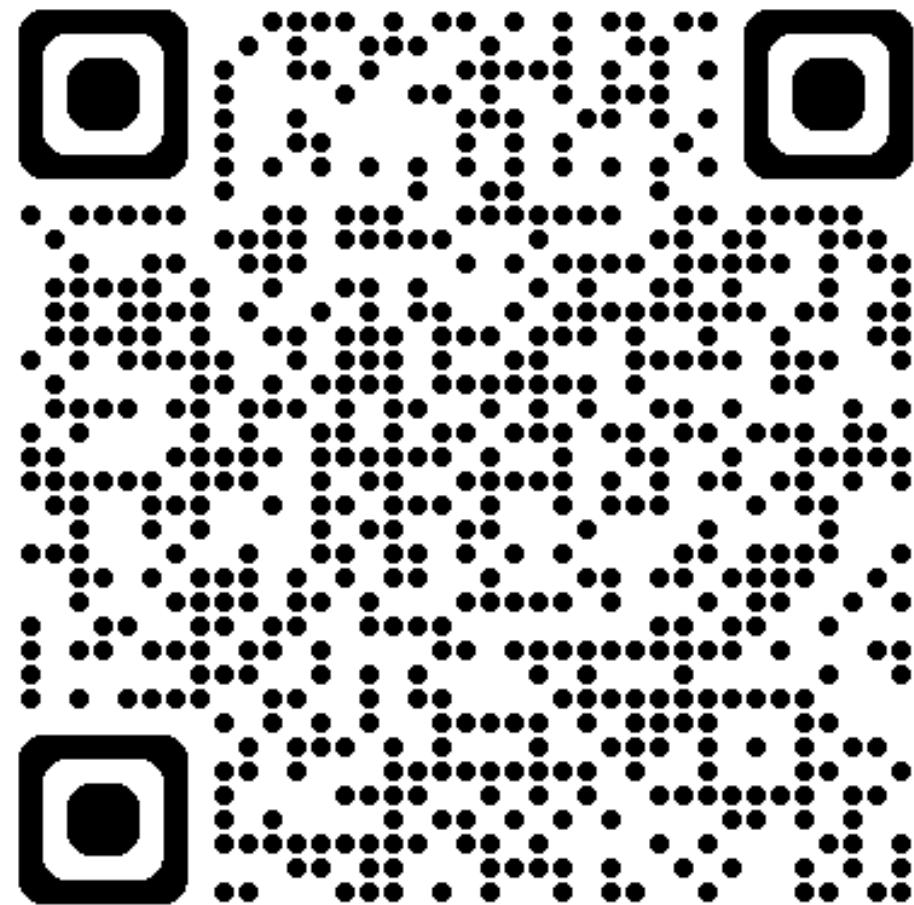


# Diseños echos en Blender

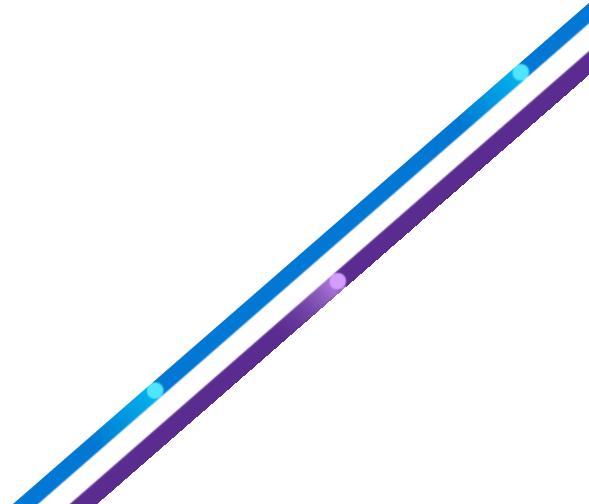


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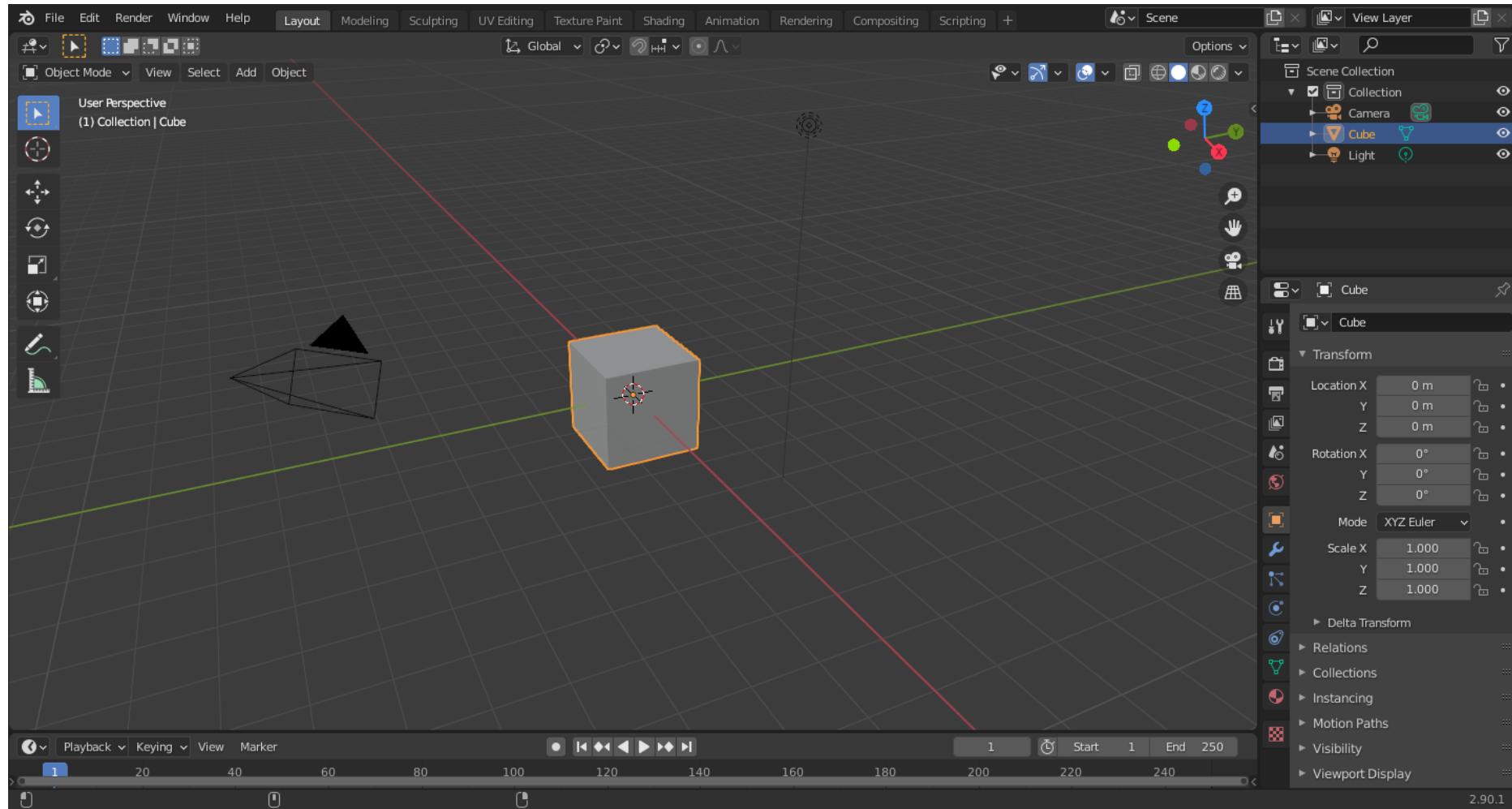




Take our two-question survey



# Conociendo la Interfaz de Blender



# Conociendo la Interfaz de Blender

Vista 3D: Área donde se manipulan los objetos.

Barra de herramientas: Acceso rápido a las herramientas esenciales como mover, rotar, escalar.

Editor de propiedades: Modificaciones detalladas de los objetos seleccionados.

Timeline: Control de la animación y los fotogramas clave.

Outliner: Vista jerárquica de todos los elementos en la escena.



# Conociendo la Interfaz de Blender

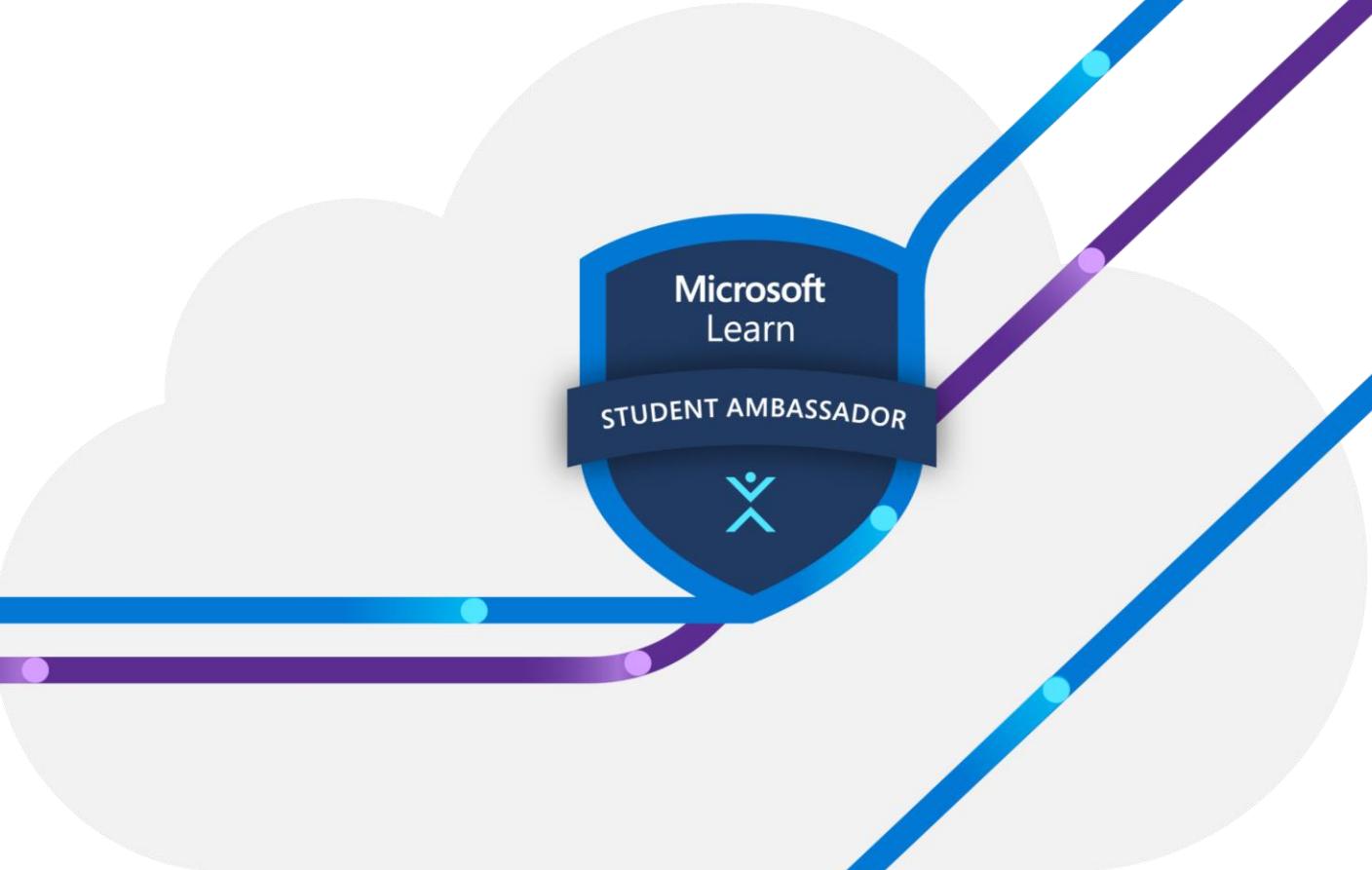
Extrusión (Extrude): Permite crear nuevas geometrías a partir de caras o aristas.

Mover (Move): Mueve objetos en las direcciones X, Y y Z.

Rotar (Rotate): Rota los objetos en el espacio 3D.

Escalar (Scale): Cambia el tamaño de los objetos.





# Text layout (without bullet points)

Main topic: Segoe UI Semilight, size 28pt

Segoe UI, size 20pt for second level

Segoe UI, size 16pt for third level

# Text layout with bulleted text

- Main topic: Segoe UI Semilight, size 28pt
  - Segoe UI, size 20pt for second level
    - Segoe UI, size 16pt for third level

# Example with longer headline text wrapping to a second line

When the headline text is 2 lines, move this text block  
down to align to the lower blue guide



If you don't see guidelines, click on the View menu,  
and then check the box in front of "Guides"

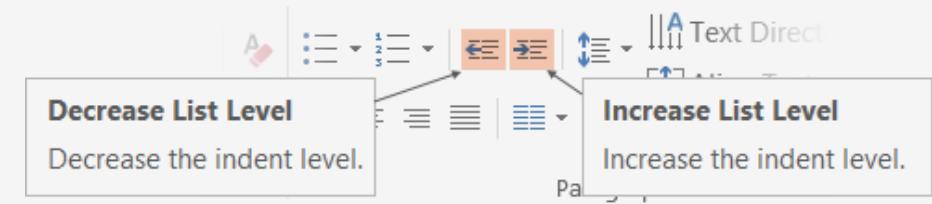
Use a "soft return" Shift + Enter to wrap text without  
adding extra line spacing

# Adjusting list levels

Main topic: Segoe UI Semilight,  
size 28pt

Segoe UI, size 20pt for second level

Segoe UI, size 16pt for third level



Use the “Decrease List Level” and “Increase List Level” tools on the **Home** menu to change text levels.

## Try this:

1. Place your cursor in the line of text that says “Segoe UI, size 20pt for second level”
2. Next click the Home tab, and then on the “**Decrease List level**” tool. Notice how the line moves up one level.
3. Now try placing your cursor in one of the top “Main topic...” line of text. Click the “**Increase List Level**” tool and see how the text is pushed in one level.

Use these 2 tools to adjust your text levels as you work

# Bullet points layout with subtitle

Set the subtitle to 20pt in the same text block, with character spacing Normal

Move the text block down vertically to align to lower guide 

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Hyperlink style: [www.microsoft.com](http://www.microsoft.com)

# Slide palette info

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Avoid using too many colors in your presentation.

## PowerPoint Theme Accent colors



Use **Accent 1** and **Accent 2** as  
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Use **Accents 5-6** sparingly

# Creating accessible content

Take the following steps to create accessible content that everyone can consume effectively.

## Contrast

Use high contrast colors for maximum readability

The recommended contrast ratio is at least 4.5:1



### Color Contrast Analyzer

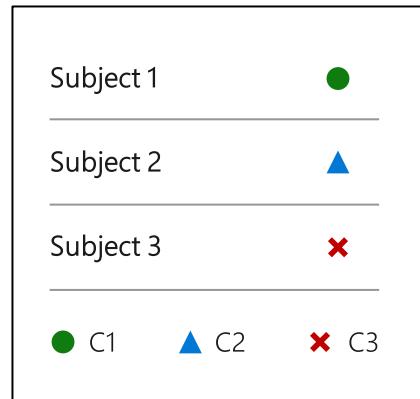
Download this tool to determine the legibility of text and the contrast of visual elements

 Download

## Shape and color

Use different shapes with a legend to indicate statuses to accommodate for color blindness

### Example:



## Alt text

Alt text helps people with screen readers understand the content of slides

You can create alternative text for shapes, pictures, charts, tables, SmartArt graphics, or other objects

### Here's how:

Right click the image or shape

Select **Edit Alt Text**

Enter a **Title** and **Description** of your image or object

## Slide layouts

Using a built-in slide layout that matches your content ensures a hierarchical reading order of text blocks

### Example:

If a new slide will have a title, rather than starting with a blank layout and adding a text block for the title, choose one of the built-in layouts with a title placeholder



## Reading order

Screen readers describe content on the screen in the order it was created

To ensure your content is read back in the order you prefer, arrange your objects in the Selection Pane appropriately. Objects on the bottom of the selection pane are read first

### Here's how:

Click the **Home** tab

In the **Drawing** group, select the **Arrange** drop-down menu

Click **Selection Pane...**

## Additional tips

Be sure to run the **Accessibility Checker**! Go to **File** → click the **Check for Issues** drop down menu → click **Check Accessibility**

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# Demo

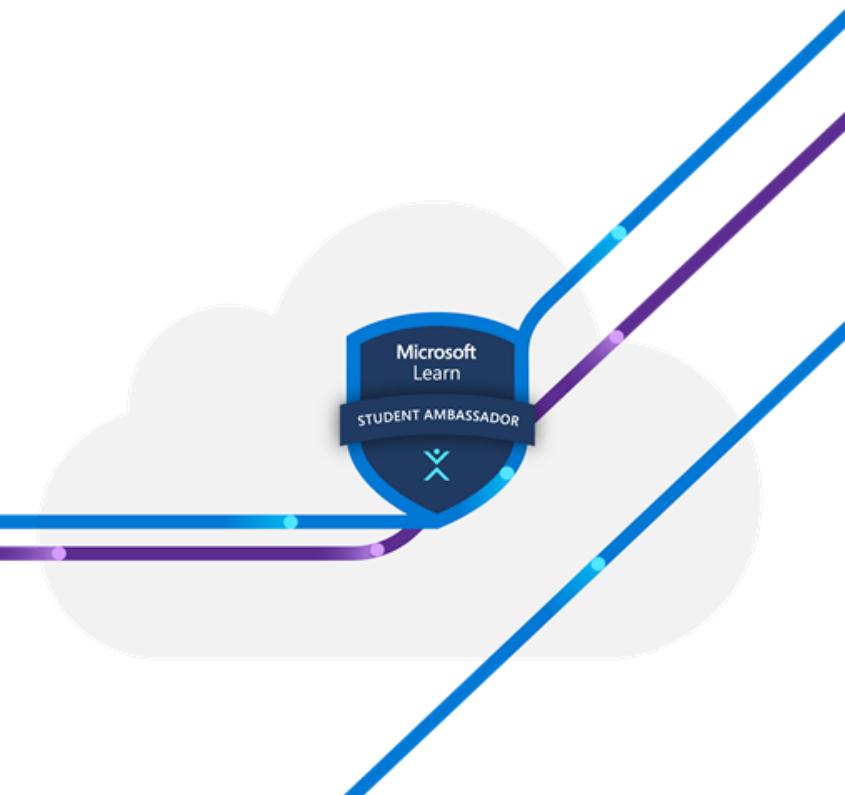
Speaker name



# Video



# Section title

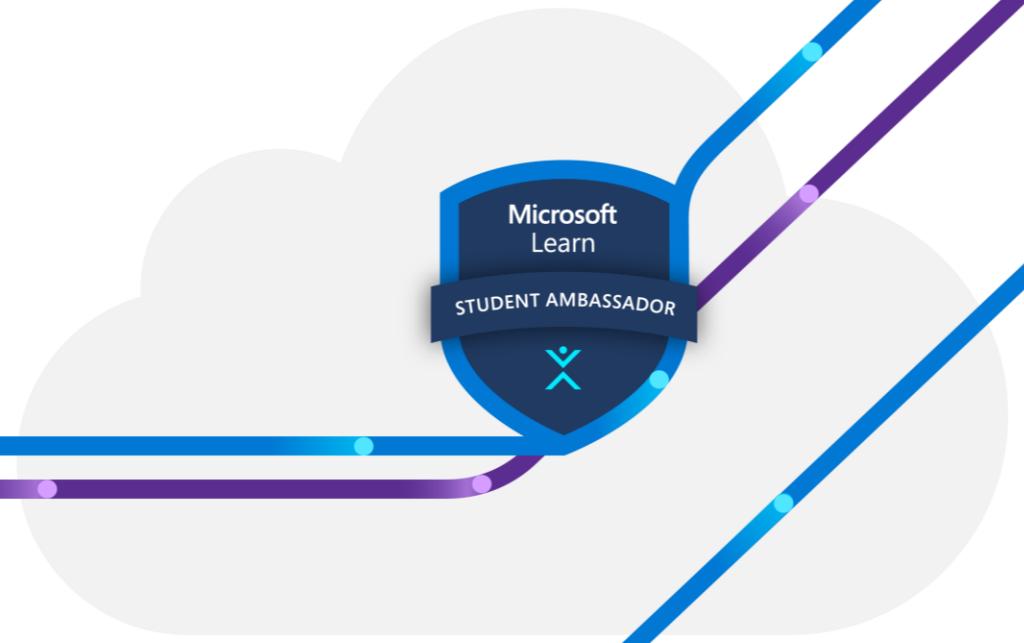


# Survey



# Software code slide

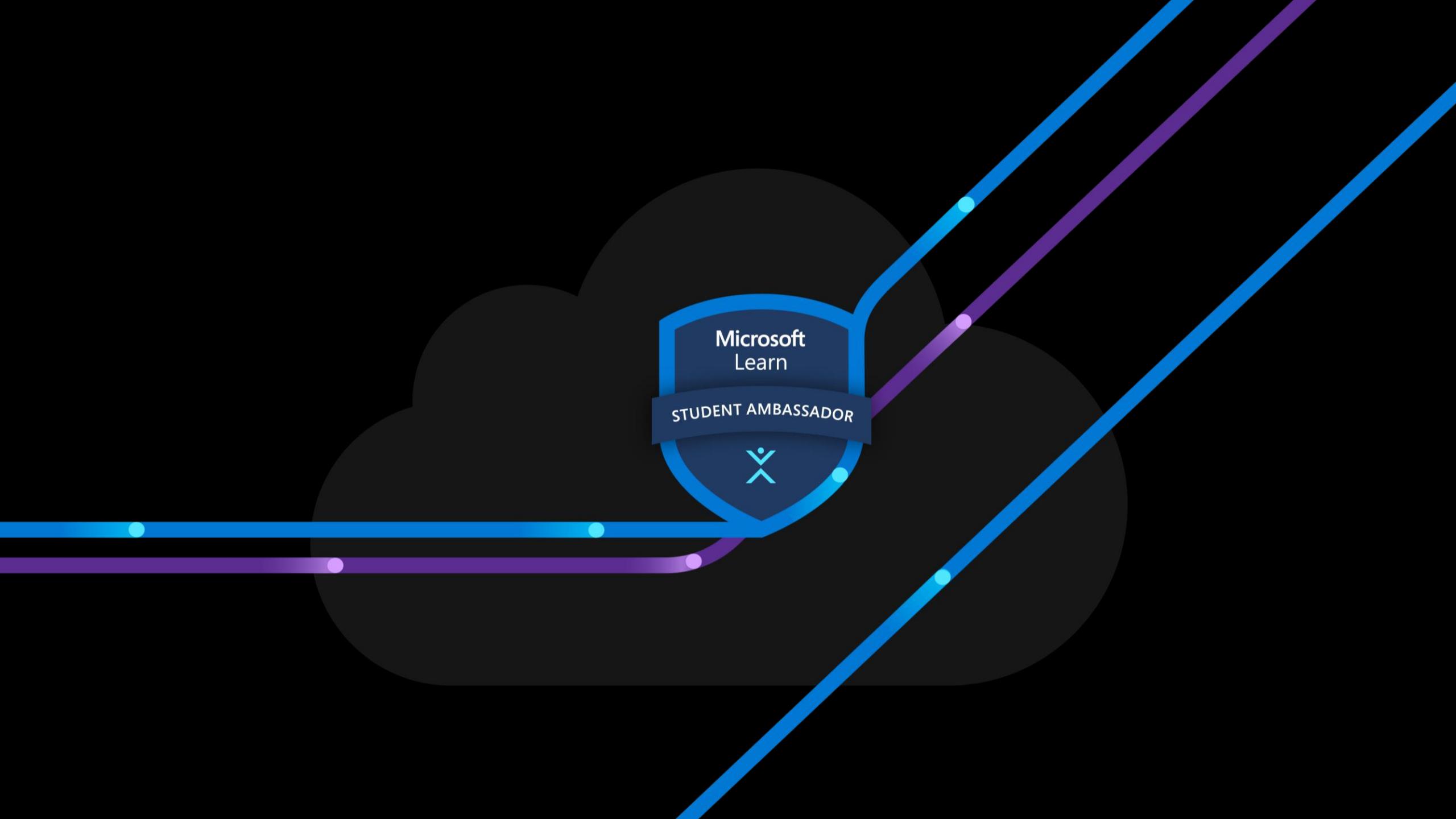
This slide layout uses Consolas, a monotype font which is ideal for showing software code.



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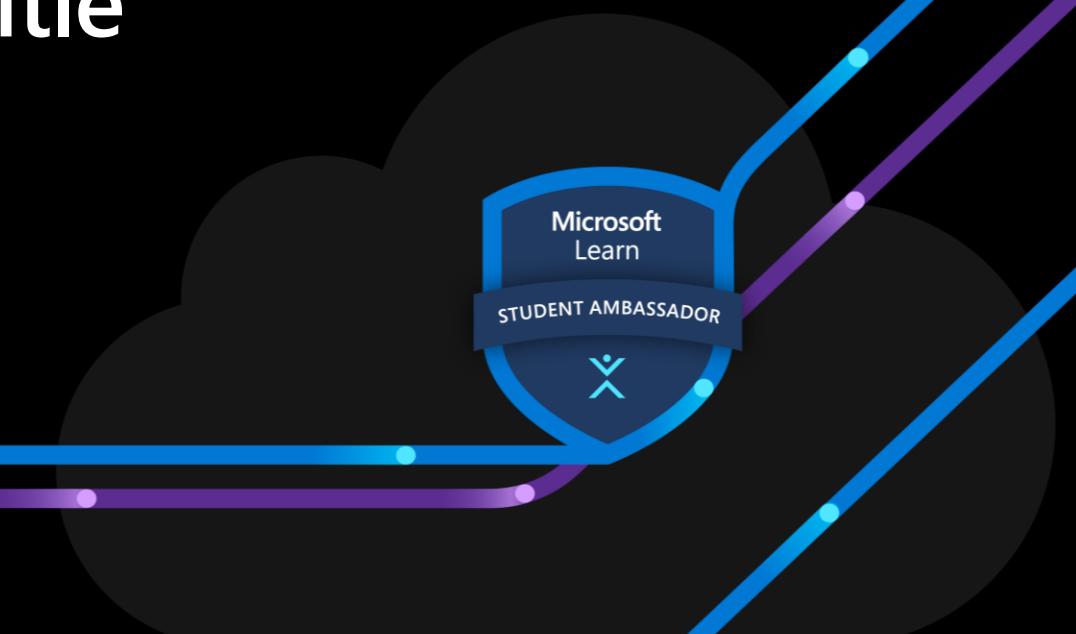




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# Event name or presentation title

Subtitle or speaker name



Microsoft Learn  
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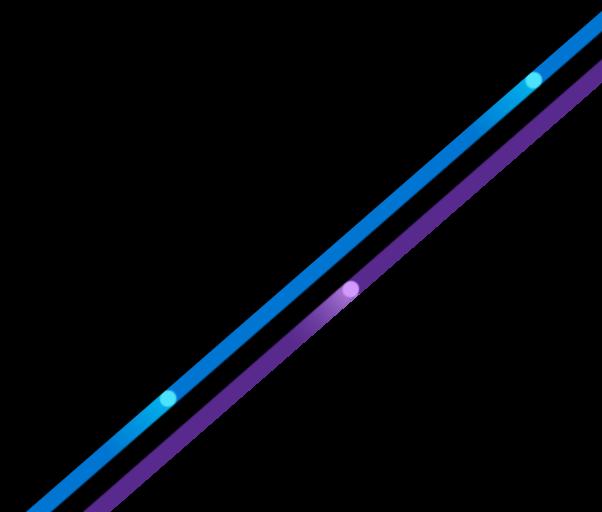
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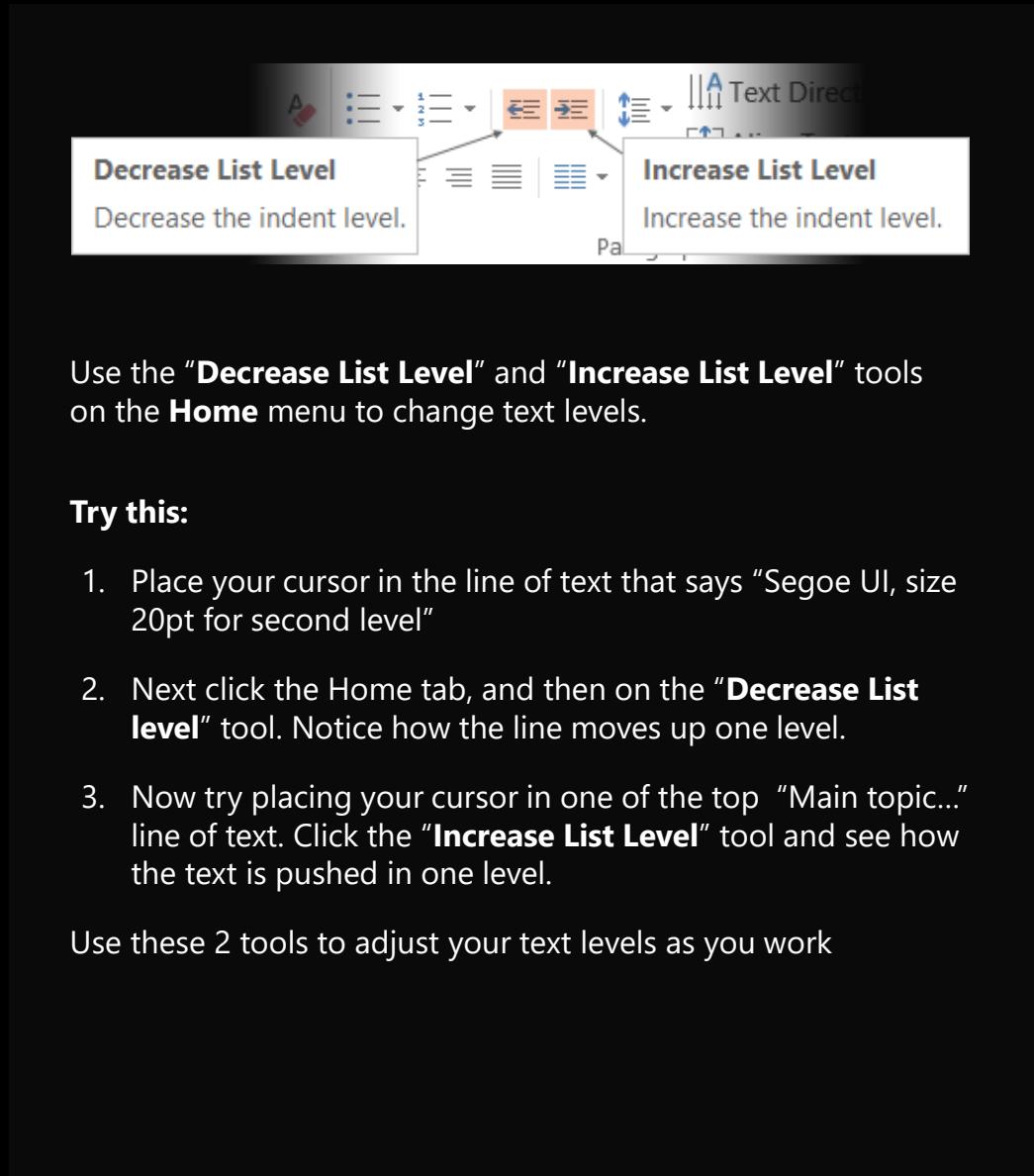
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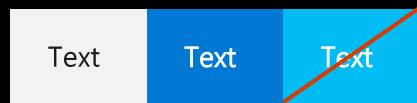
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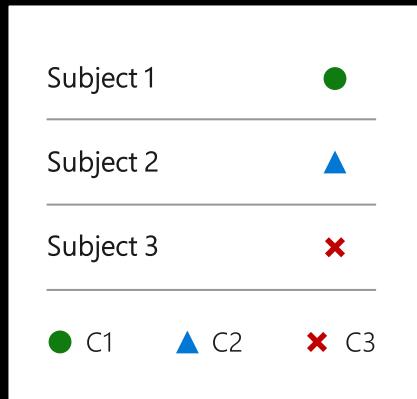
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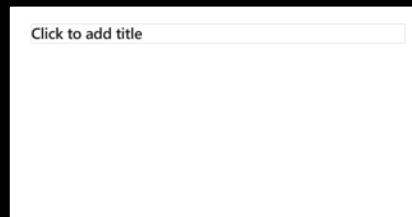
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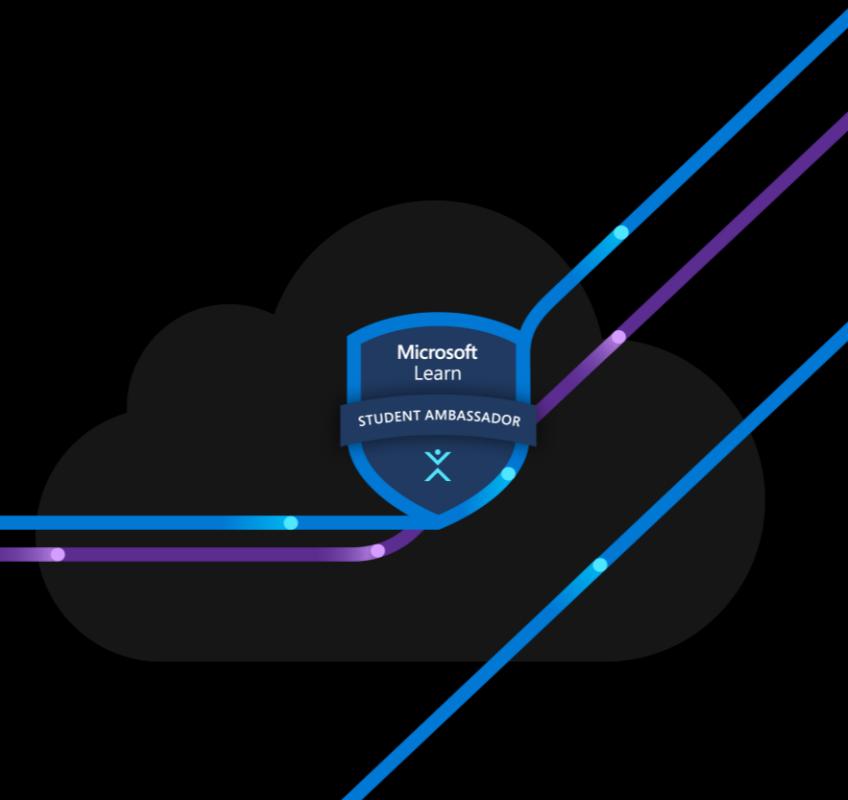
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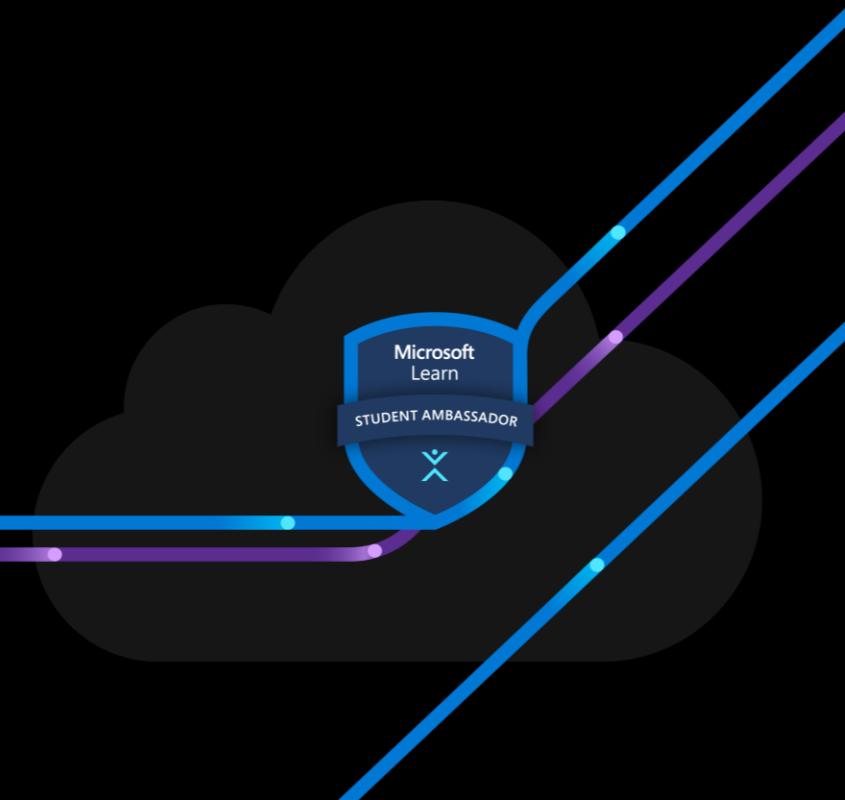
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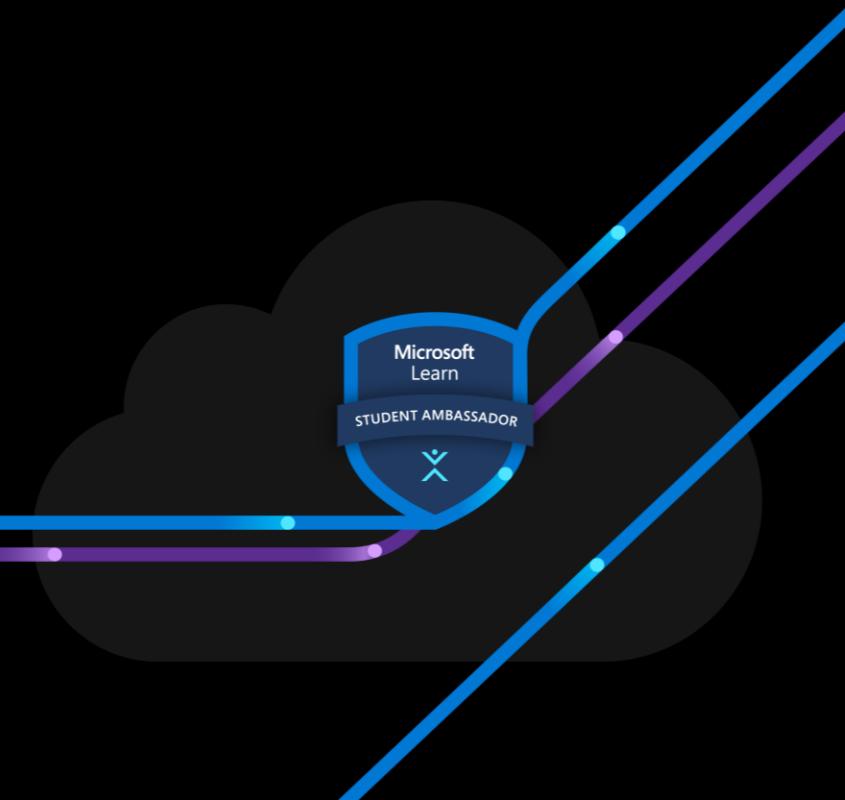
Speaker name



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