

BLENDER INTERFACE TUTORIAL

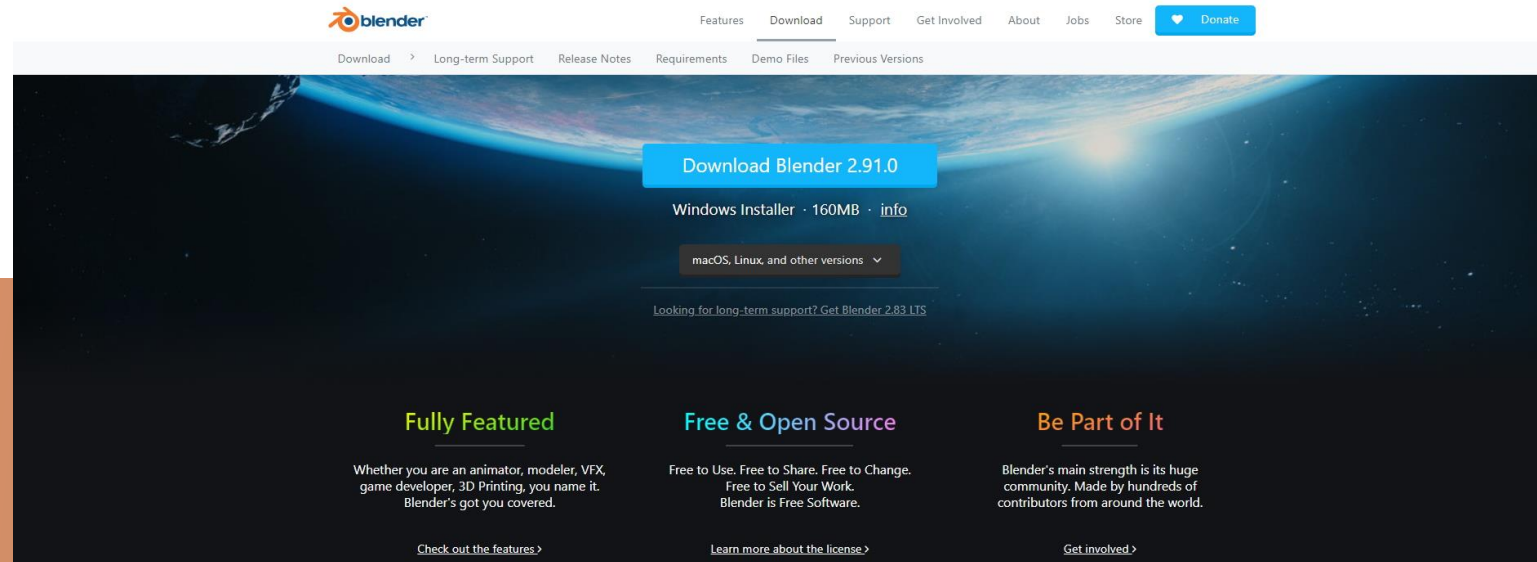
PAFSE: Partnerships for Science Education

Project approved under Horizon 2020: Science with
and for Society
Call: H2020-SwafS-2018-2020
Topic: Open schooling and collaboration on science
education

- Before we start, we need to install Blender. You can download the program for free from the official website:

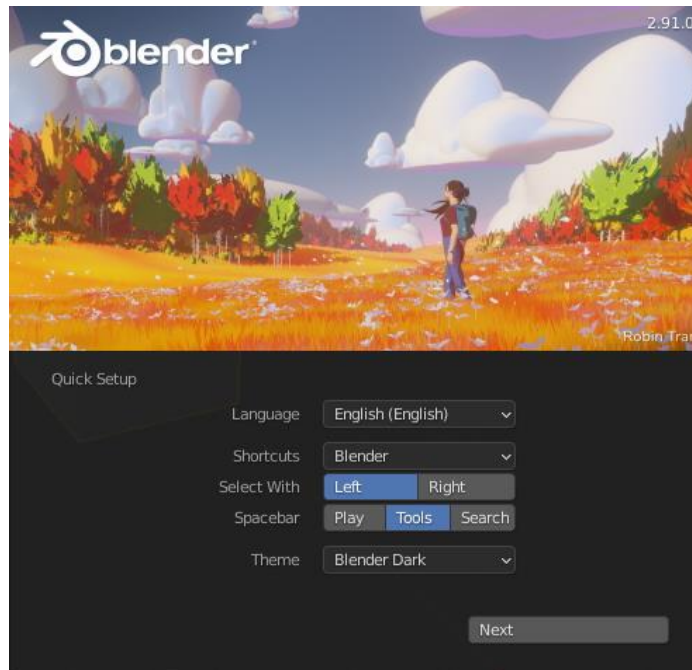
<https://www.blender.org/download>

- Make sure you choose the version that is compatible with your operating system, otherwise you will encounter installation problems.



QUICK SETTINGS

- After installation, you can see that the program executable has been created on your desktop. You can open it by double-clicking the left mouse button.
- The first time you run the program, you will be greeted with a window that allows you to make some basic settings:



NOTE: it is recommended to keep Blender Dark as it reduces eye strain.

Language:

to select the language.

Shortcuts:

allows you to change the way shortcuts are executed.

Select With:

Here we choose whether to select with the left or right mouse button.

Spacebar:

defines the functionalities that the spacebar will have. In our case, we chose Tools, as this will allow you to access shortcuts more quickly.

Theme:

there are a variety of themes to choose from. These affect the colors of the program's interface.

SPLASHSCREEN

- The Splashscreen window is initially displayed each time you open the program. In this window you can choose to create a project or open one that you have previously saved.

New Files:

This is where you choose to create a new project. There are several templates to choose from, but we'll use the default one, General.

Open...:

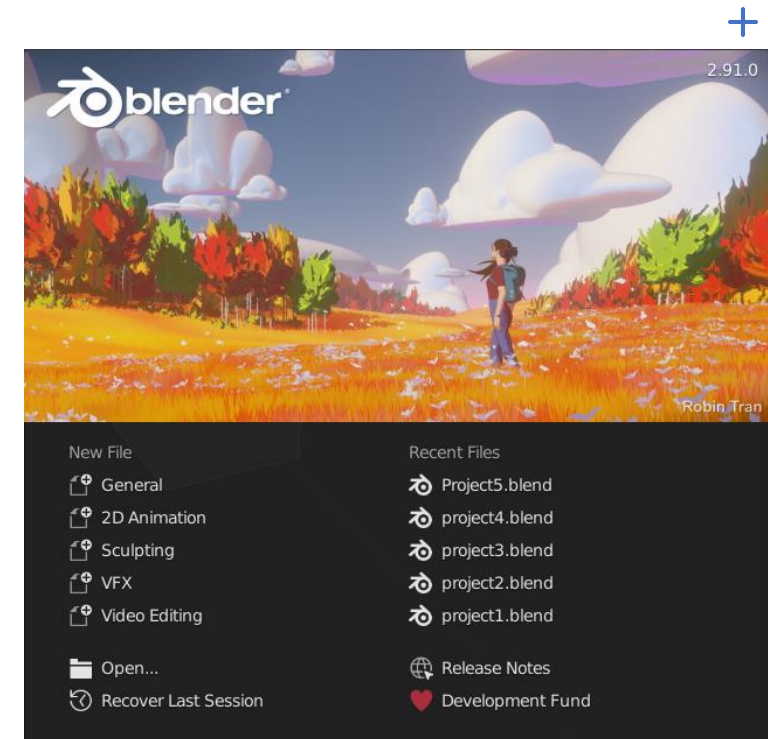
is used to open a previously saved project.

Recover Last Session:

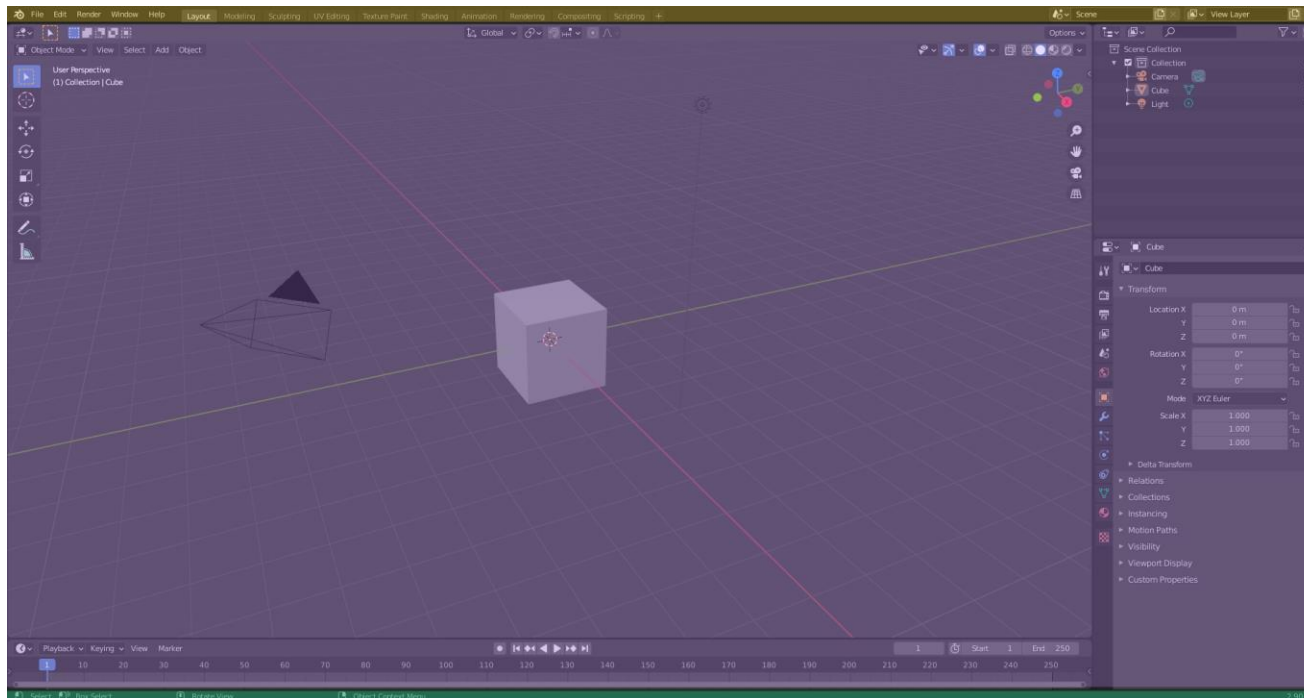
you can recover a previous session that was closed incorrectly.

Getting started/Recent Files:

Here you can directly access the Blender Manual and the official Blender website. Once you have saved a project, this information disappears and is replaced by Recent Files, which allows you to open recently saved projects.



INTERFACE AND WORKSPACE



*Toolbar
(top):*

This bar is made up of tools and Tabs that allow you to navigate through different workspaces.

*Workspace
(middle):*

this is where the work area is located.

*Status Bar
(bottom):*

this bar at the bottom of the interface serves as an informative display that tells you what a click can do in the context in which your cursor is at that moment.

WORKSPACE

- If you look closely, you can see that this area

3D Viewport:

panel marked in green.

Outline:

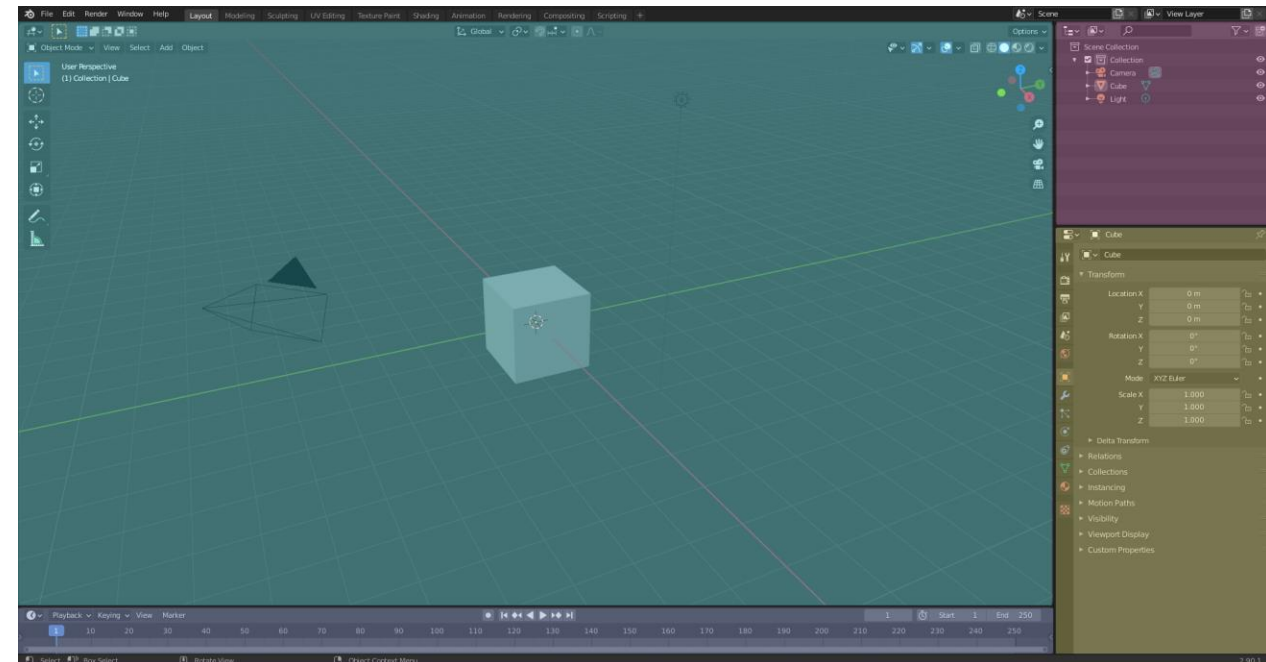
panel marked in magenta.

Properties:

panel marked in yellow.

Timeline:

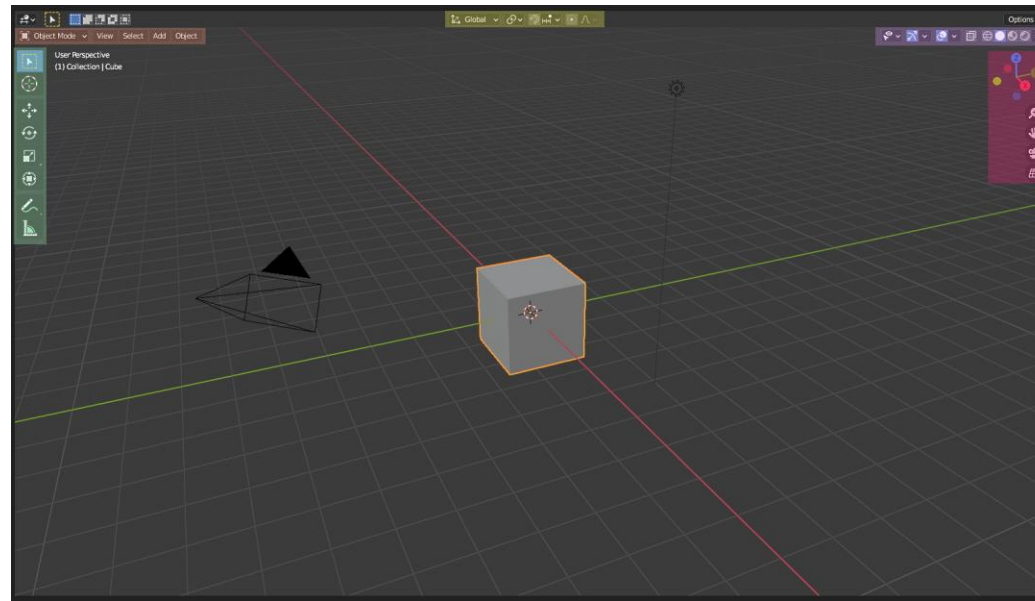
panel marked in blue.



- Since we won't be creating animations, we'll discard the Timeline.

3D VIEWPORT

- This panel is the most important. It contains the three-dimensional space, also called the scene. This is where you will create the 3D models themselves.
- At the edges of the window are various tools that you will need to interact and work with the program. They are grouped by their functionality and have easy-to-read icons so that you can easily identify them in case of doubt.



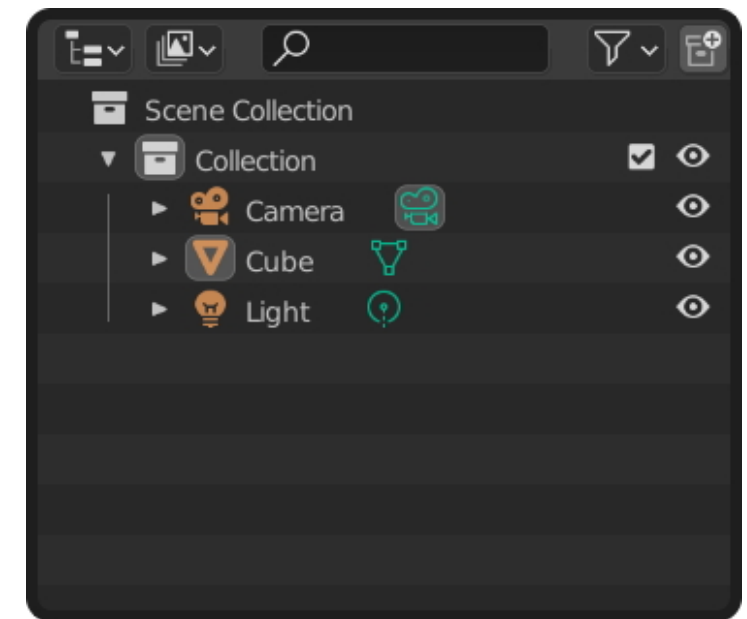
OUTLINE

- The Outliner is a window that allows you to see the different objects in your scene. Its functionality is similar to that of video or image editing programs such as Photoshop.
- To organize the project, you can group elements by Collections, which work like folders. These can be created by clicking on the green button in the image, or by right-clicking on the panel itself.
- To rename an object, simply double-click on the name and change it to the new one.

NOTE: It is very important to rename all the models and Collections you have in the scene. With a few objects you won't have any problems, but when you're working on a larger project, it can get confusing.

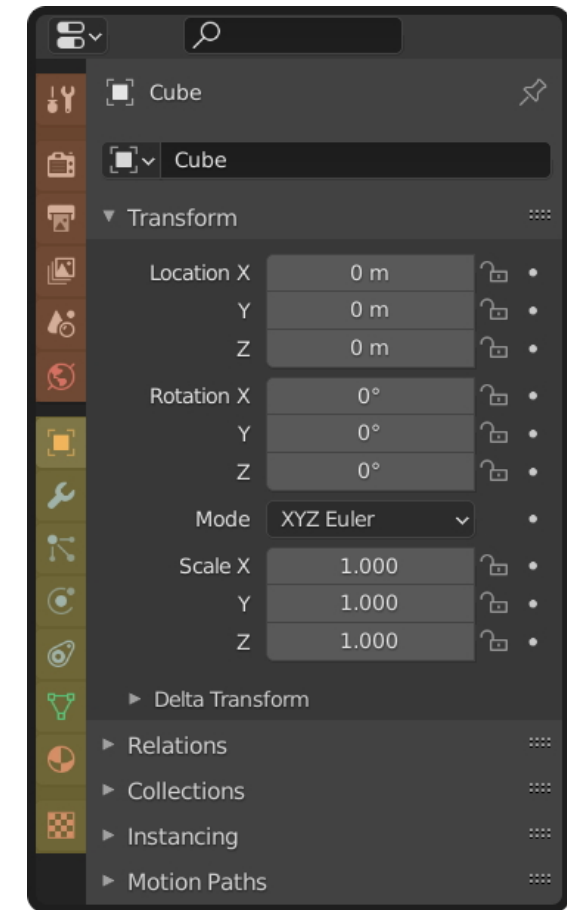
- You can also hide and make visible again any object in the scene by pressing the eye symbol in front of each one.

NOTE: Grouping objects by Collections allows you to hide multiple elements at once.



PROPERTIES

- Under the Outliner you can find the Properties. These are grouped into categories which can be selected using the icons on the left. These categories can be divided into two groups:
 - Those that are applied to the scene (marked in orange in the image).
 - Those related to the currently selected object (marked in yellow in the image).



CUSTOMIZE THE WORKSPACE



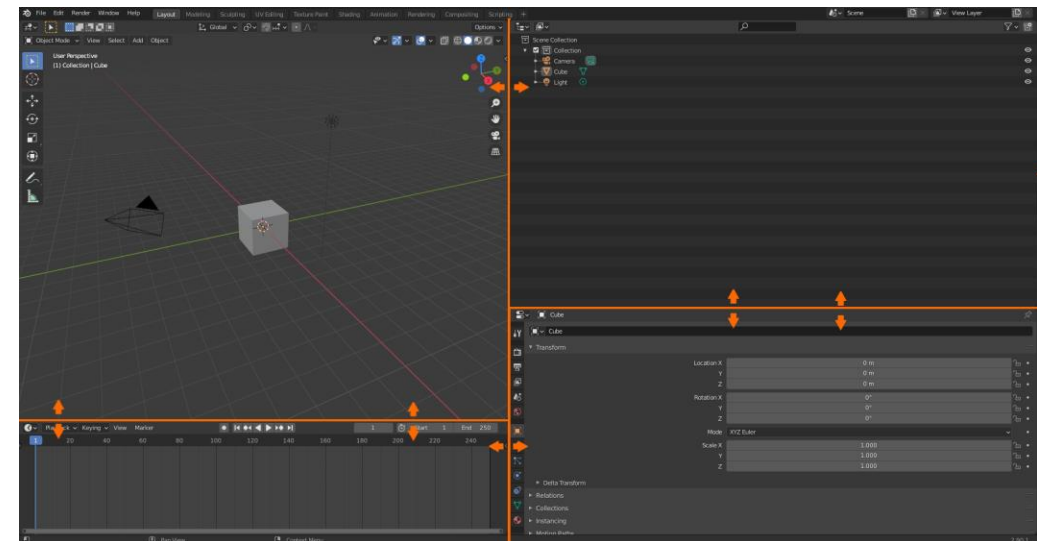
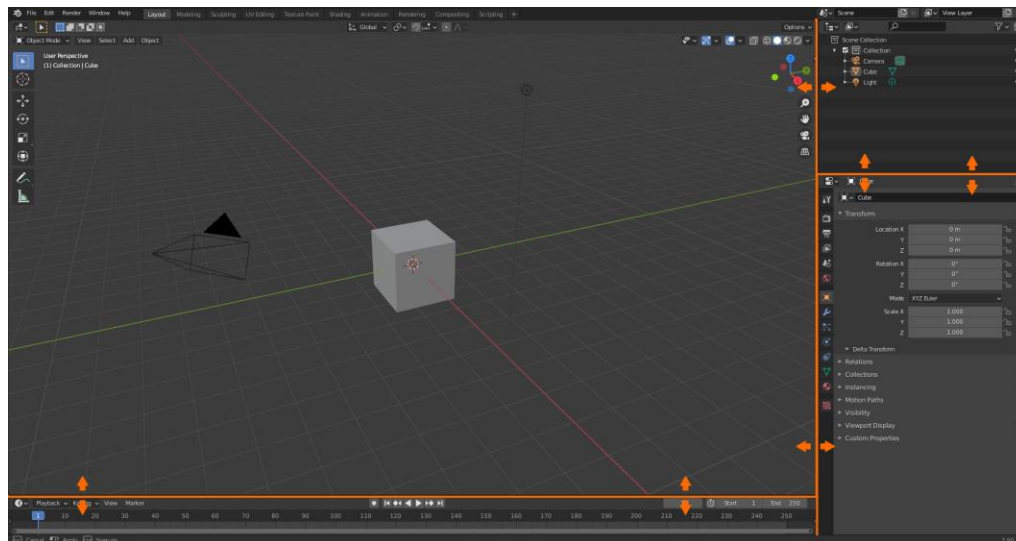
Now that you've seen what each panel does, let's show you how to manage your workspace.



One of the ways to optimize the way you work in the program is to take advantage of the customization capacity, which allows you to adapt your workspace according to the needs of the project you're working on.

PANEL DIMENSIONS

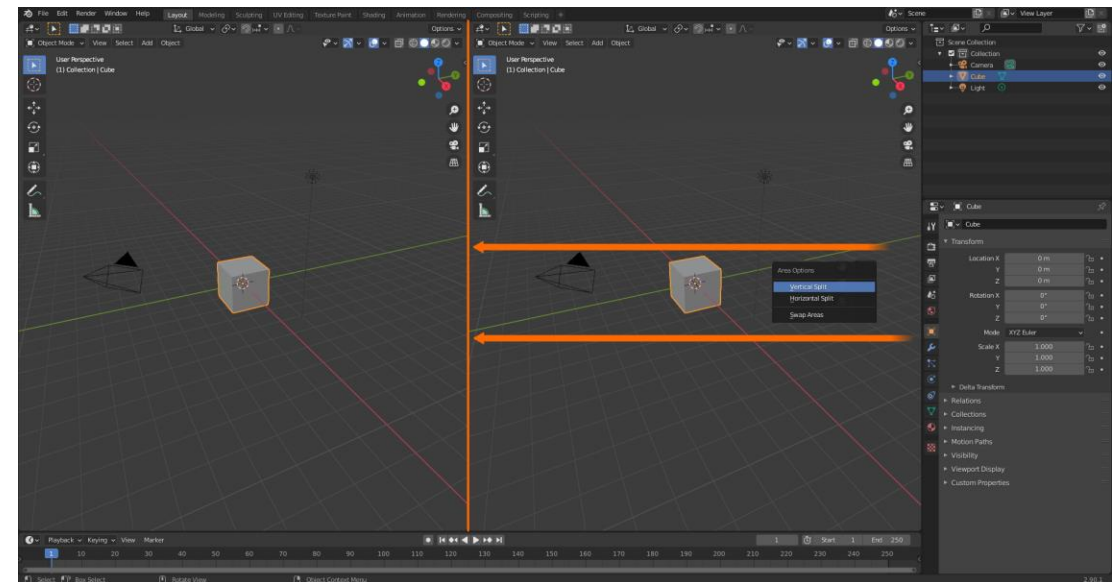
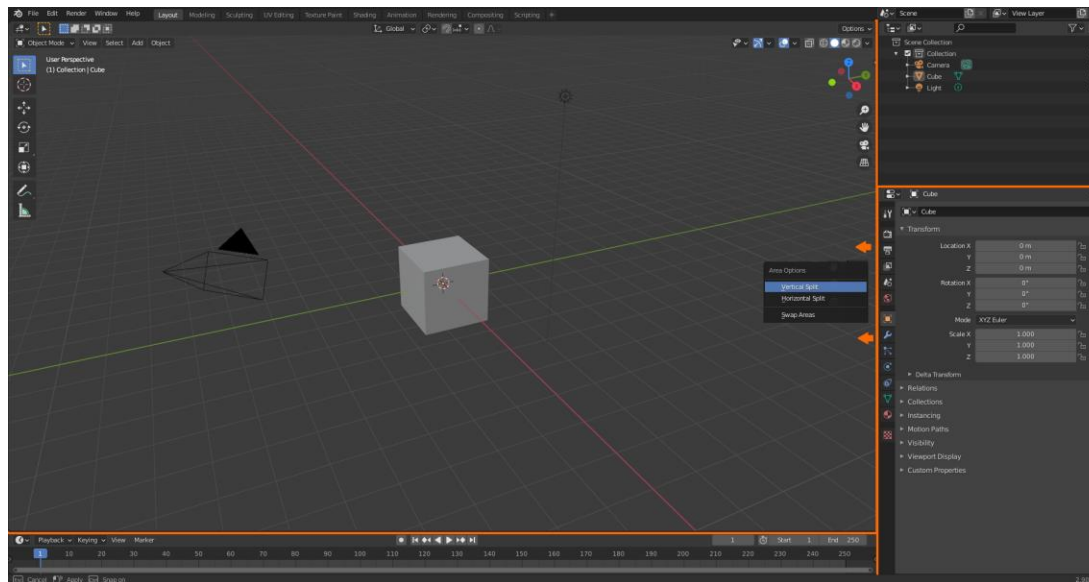
- As we saw earlier, the workspace is made up of panels. You can change the dimensions of each panel by left-clicking on the edges and dragging to the desired side.



NOTE: You must hold down the mouse button until you choose the position you want. Once you release it, the panel will stay in place.

PANEL DIVISION

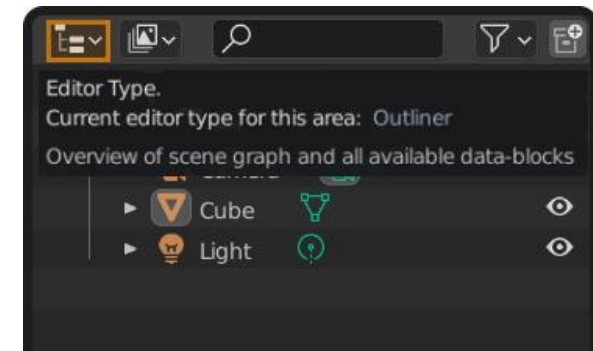
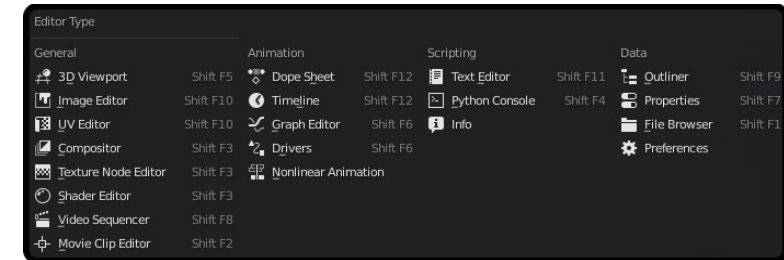
- You can split a panel in two, thus creating a new one. To do this, right-click on one end of a panel, choose whether you want to split the panel horizontally or vertically and drag it to the side you want.
- This is a very useful tool; imagine you're modeling a character. By creating a new panel, you can add more viewports with different views to adjust the proportions of the model.



REPLACING THE EDITOR

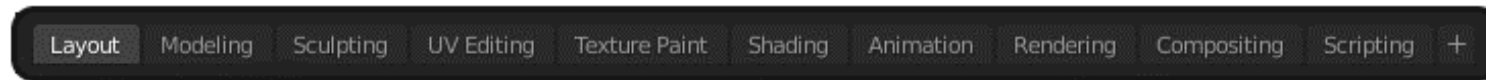
- Each panel is loaded with an Editor. The Outliner, Properties and 3D Viewport are Editors, but they are not the only ones.
- These can be replaced depending on the task you want to perform.
- There is a wide range of Editors, each with its own functionality, such as texturing and animation.
- To switch between them, click on the button in the top left-hand corner of the panel you want and choose the Editor you want to use.

NOTE: The icon displayed on the button varies depending on the current Editor in the panel. Each Editor has its own icon.



WORKSPACE WORKFLOW

- There are predefined workspaces adapted for the different stages of creating a 3D model. Each one is basically a customization of the main one, in which the panels already have the Editors needed for specific tasks, such as modelling or texturing.



- You can switch between them via the Tab in the Toolbar at the top of the program window.

SAVE AND OPEN A PROJECT

- - To finish, you can select File > Save As... and a window will appear to save the project. You can choose the directory and save it.
- To open a project you can choose Files > Open..., where you can search for the project's directory, or Files > Open Recents, which shows the projects that have recently been opened.

NOTE: You can press Ctrl + S to quickly save the project and Ctrl + O to open it.

