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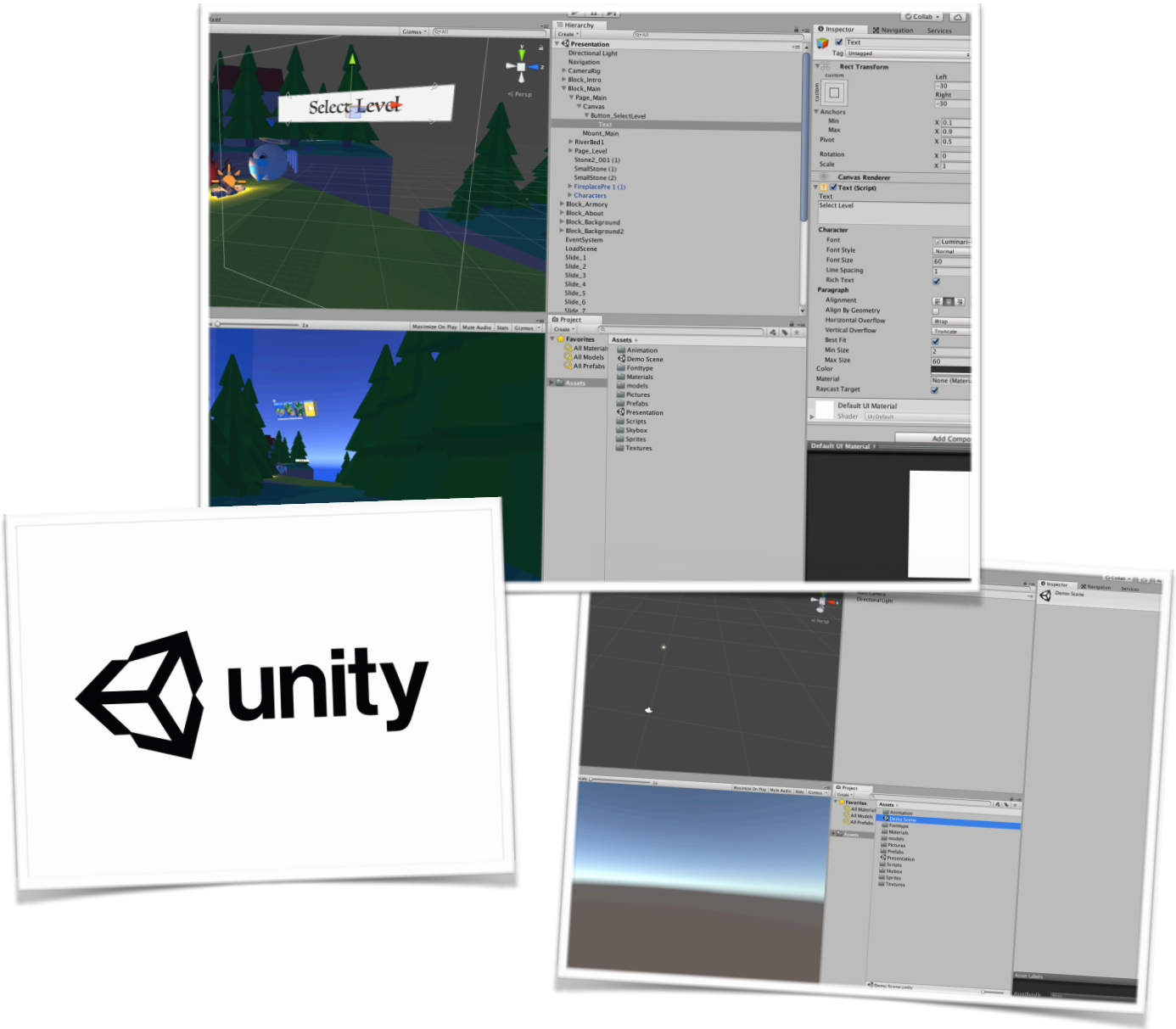
Unity

E-Portfolio Handout



Unity Installation

To follow this E-Portfolio, you will have to download and install Unity3D. Once downloaded, execute the installer and make sure to include the **Build Support for Windows**. If you want to, you can also include support for other OS (MacOS, Linux, […]).

Since we will develop a game for Computer, you should look for the OS you need / work on.

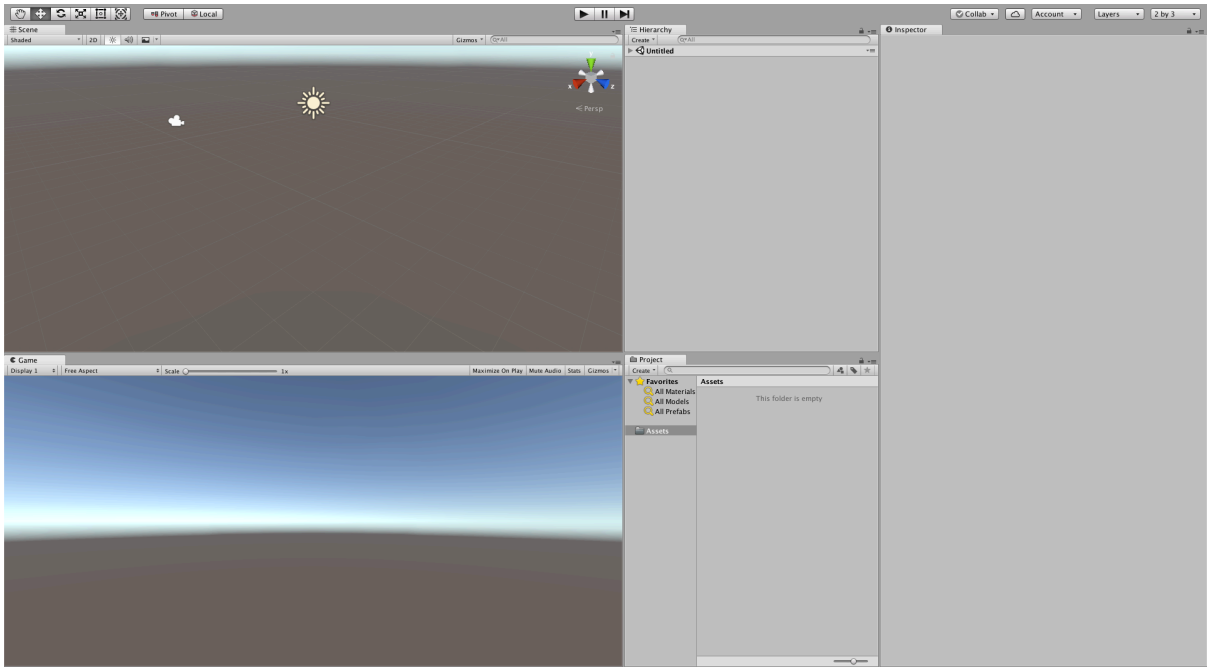
Getting Started

LAYOUT

Working with an unknown Engine may seem more complex than it actually is. One of the major comfortable features of Unity is the **adjustable Layout**. Following these steps will make it look much cleaner and help us work on our project more efficient, since we only want to display the things we really need.

1. Click on the upper right in the Unity Editor on „Layout“ and select *2 by 3*.
2. Click and hold on the *Project* Tab and drop it beneath the Hierarchy Tab.

It should now look like this:



HOW TO WORK WITH THE EDITOR

Now that we have a proper Layout to work with, what does each section represent? On the upper left, we have the so called **Scene View**. In here, we can see the game objects we have added to the scene. We are also able to change their position, drag and drop new Objects in here and build our scene together using different objects, animations and more.

Right beneath it you will find the **Game View**. Depending on the positioning of the camera, you can take a direct look on how the finished scene would look like. This helps you to get a better insight on how the objects look in game and if they are positioned correctly, or any other adjustments are needed.

The Layer in the middle on the top is our **Scene Inspector**. Here you can see all of your objects in the scene and make them a parent or child of other objects just by dragging and dropping.

Beneath it is our overall **Project Folder** in which we can take a look at our Project Organization, assets and more. This is used to drag and drop general assets into a scene and modify them there.

On the far right you find the **Inspector**. The Inspector gives you additional Information on the object you have selected. E.g. if you have selected an Object of type Cube, you would have the possibility to change its dimensions, style and overall appearance. In addition to that, you can take a look at all applied components and their attributes as well.

Inside the Editor

Button	Function
F	**Finds an Object in SceneView**

- **Creating a Prefab**
  - Simply drag and drop a GameObject in your Assetsfolder and a Prefab is generated
- **Adding Elements to the Scene**
  - Simply Drag and Drop Objects from your Assets Folder in your SceneView or make a Right-Click > Create > […]
- **Componentbased Architecture**
  - Simply create Objects, Scripts, Animations, […] and munge them together however you like. You can apply different components to almost any object, which can then communicate with each other.

- **Tagging and Layer**
  - Use Tags and Layers to define your prefabs and GameObjects further. This allows you to check, if a GameObject of a specific kind fulfills a Condition.
- **Scripts**
  - To create Logic, use C# scripts and apply them as a component on the GameObject it should modify.
  - Public variables are accessible through the Inspector and can be changed by the Developer during the Emulation.
- **Input Manager**
  - Use the Unity Input Manager to verify your inputs. This allows you to set multiple options for the same case and furthermore allows you embed Controller Support very easily.