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| Experiment No. 1 |
| Installation of Unity and Visual Studio |
| Date of Performance: |
| Date of Submission: |
| Marks: |
| Sign: |

# EXPERIMENT NO.1

**Aim:** Installation of Unity and Visual Studio

## Theory:

### Installing Unity using Unity hub

The Hub is the primary way to install the Unity Editor, create projects, and manage your Unity experience. It provides a central location to manage your Editor installations, Accounts and Licenses, and Projects.

The Unity Hub is a standalone application that streamlines the way you navigate, download, and manage your Unity projects and installations.

### Install the Unity Hub

To install the Unity Hub, go to the Download Unity page on the Unity website and select the Download Unity Hub button.

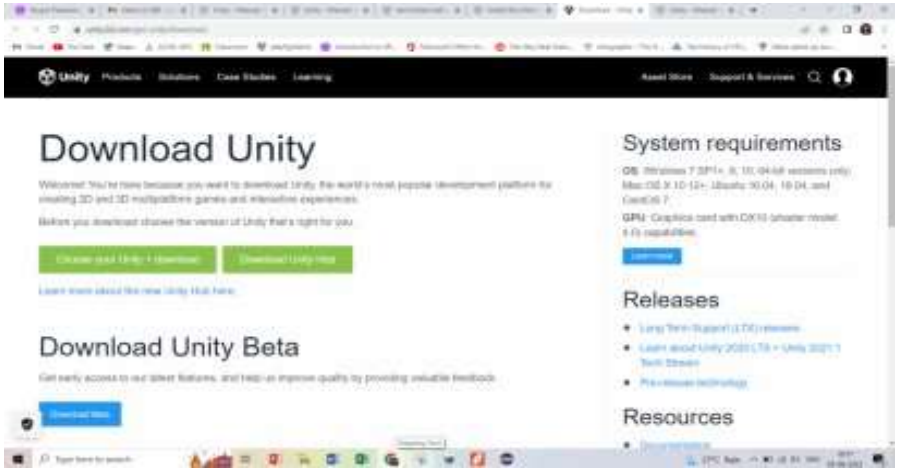


**Figure 1. 1 Unity Download Page**

Open the installer file and follow the instructions in the Unity

Hub setup window. Sign up for Unity Personal

Unity hub contains multiple tabs and needs a few steps before starting up the project in the Unity Editor. The main 3 tabs are

- Projects
- Installs
- Learn

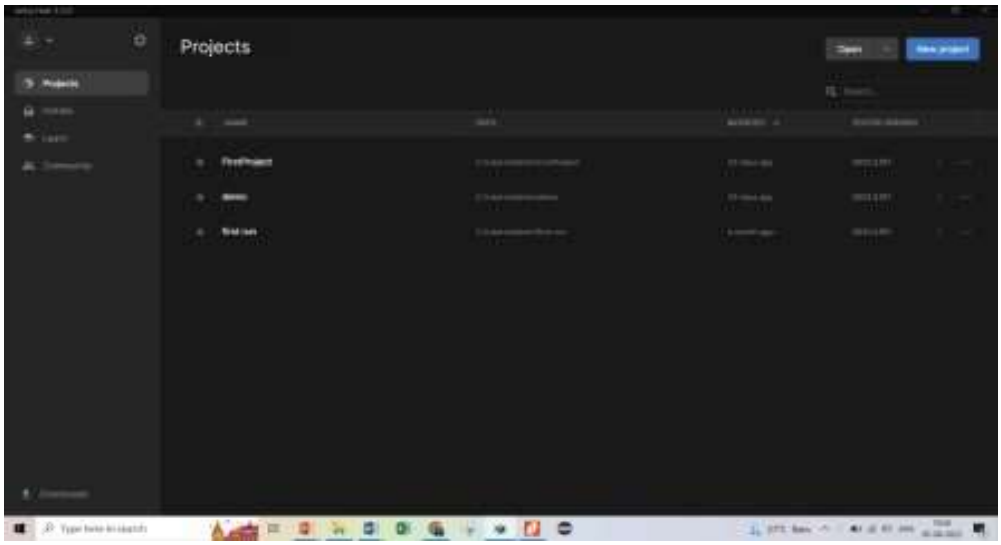


**Figure 1. 2 Unity Hub Main Window**

Project tab:

Projects tab is the first thing that is shown when the HUB is opened. It contains all the projects that have been worked on previously. Here we can also choose which version (installed version/Editor version) of Unity can be used to start the project.

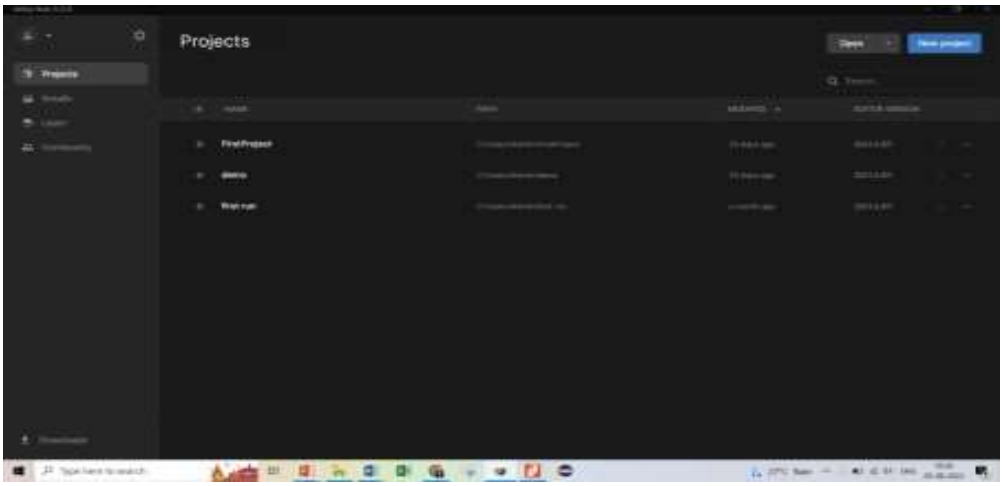


**Figure 1. 3 Unity Hub - Project Tab**

Installs Tab:

This tab will show all the current versions of Unity in the computer. You can add new versions using the add tab, or you can locate a downloaded version locally, or you can click on a link and directly download a certain version from a link.

We use 2021.3.4f1 in the course You can download it on the following link:-

https://unity3d.com/unity/whats-new/2021.3.4

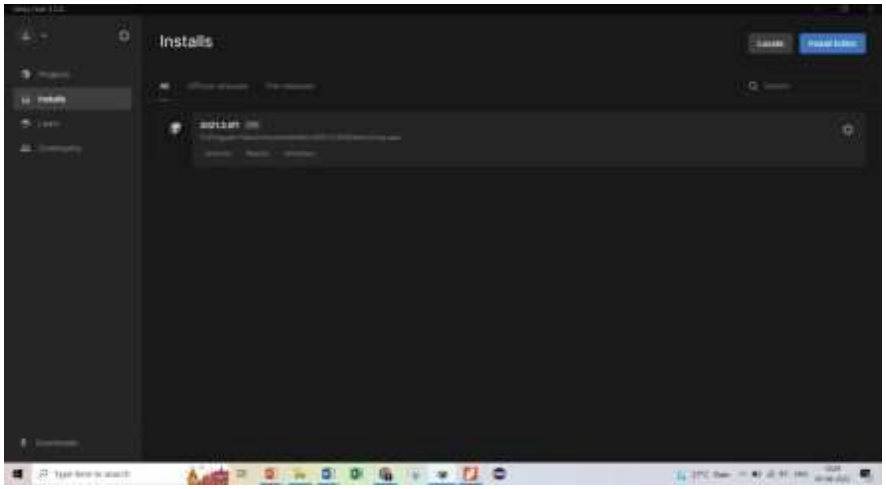


**Figure 1. 4 Unity Hub - Installs Tab**

Installing a New Version

If you choose to install a new version you will be presented with the following window to select the required modules. For e.g. If you want to create a project for Android, you will require the android build support module as seen in the following image.

Learn Tab:

Learn tab can be used to explore a lot of options provided by the developers of Unity to learn new aspects of Unity development.

Creating a new Project

On the projects tab, once add project has been selected, you can select a template, it can be core templates, samples or learning templates that have been pre-installed, or you can click on the 3D tab to create a custom empty project

Select the Project name and the location on the right and then click create project that will create a basic project.

Similarly, Install Visual Studio for programming in C#.

**Download Visual Studio**

Visit the following Visual Studio free download link
https://visualstudio.microsoft.com/downloads/
Open the .exe file

In the next screen, click continue to start Visual Studio installation

Visual Studio will start downloading the initial files.

Download speed will vary as per your internet connection. In next screen, click install Select ".Net desktop development" and Click install

Visual Studio will download the relevant files based on the selection. Once the download is done, you will be asked to reboot the PC to complete Visual Studio setup.

Post reboot, open the Visual Studio IDE. Select a theme of your choice

Click Start Visual Studio.

In Visual Studio IDE, you can navigate to File menu to create new C# applications.

## Conclusion:

What are the applications of VR?

1. Gaming and Entertainment: Immersive gaming experiences, virtual concerts, and interactive storytelling.
2. Education and Training: Simulated learning environments, such as medical surgery practice, pilot training, and industrial machinery operation.
3. Healthcare: VR therapy for mental health (e.g., treating PTSD), pain management, and virtual rehabilitation exercises.
4. Architecture and Real Estate: Virtual walkthroughs of buildings and properties before construction or purchase.
5. Tourism: Virtual tours of destinations, museums, and historical sites.
6. Retail and E-commerce: Virtual fitting rooms and immersive shopping experiences.
7. Military and Defense: Simulated combat training, battlefield preparation, and strategy planning.
8. Social and Communication: Virtual meetings and collaborative workspaces for remote teams.
9. Art and Design: Creating 3D art, product design, and interior design visualizations.