



Aim :-

Installation of Unity and Visual Studio

Theory:

Virtual Reality (VR) is a transformative technology that leverages computer-generated environments to immerse users in simulated realities, typically facilitated through specialized headsets. It has gained widespread use due to its ability to transport users to entirely different worlds, whether for entertainment in gaming, immersive storytelling, or the creation of lifelike training simulations for industries like aviation, medicine, and engineering. In education, VR enables dynamic and interactive learning experiences, from exploring historical sites to understanding complex scientific concepts. Additionally, it is employed in therapeutic settings, offering treatment options for conditions like PTSD or phobias. As VR technology advances, its applications continue to expand, revolutionizing how we engage with information, experiences, and virtual spaces.

Procedure:

1. Install Unity and Visual Studio.
2. Choose your VR platform and install the respective SDK.
3. Create a new Unity 3D project and enable VR support.
4. Import the VR SDK and assets.
5. Set up a VR camera rig (e.g., OVRPlayerController for Oculus).
6. Design your VR environment with 3D models and terrain.
7. Refer to official documentation for your VR platform and Unity for guidance.
8. Learn how to use the SDK's features, such as hand tracking and controllers.
9. Explore scripting for VR interactions (grabbing, throwing) in Unity.
10. Join VR developer communities and seek tutorials or courses for additional learning and support.



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Result:

The image shows a screenshot of a computer screen displaying the Unity website and the Unity Hub application.

Unity Website (Top):

- Header:** Unity logo, Products, Solutions, Case Studies, Learning, Asset Store, Support & Services.
- Main Content:**
 - Download Unity:** Welcomes users and provides a link to learn more about the new Unity Hub.
 - Download Unity Beta:** Offers early access to latest features.
 - System requirements:** Lists OS (Windows 7 SP1+, 8, 10, 64-bit; Mac OS X 10.12+; Ubuntu 16.04, 18.04; CentOS 7) and GPU (Graphics card with DX10 (shader model 4.0) capabilities).
 - Releases:** Links to Long Term Support (LTS) releases, Learn about Unity 2020 LTS + Unity 2021.1 Tech Stream, and Pre-release technology.
 - Resources:** Links to Documentation.

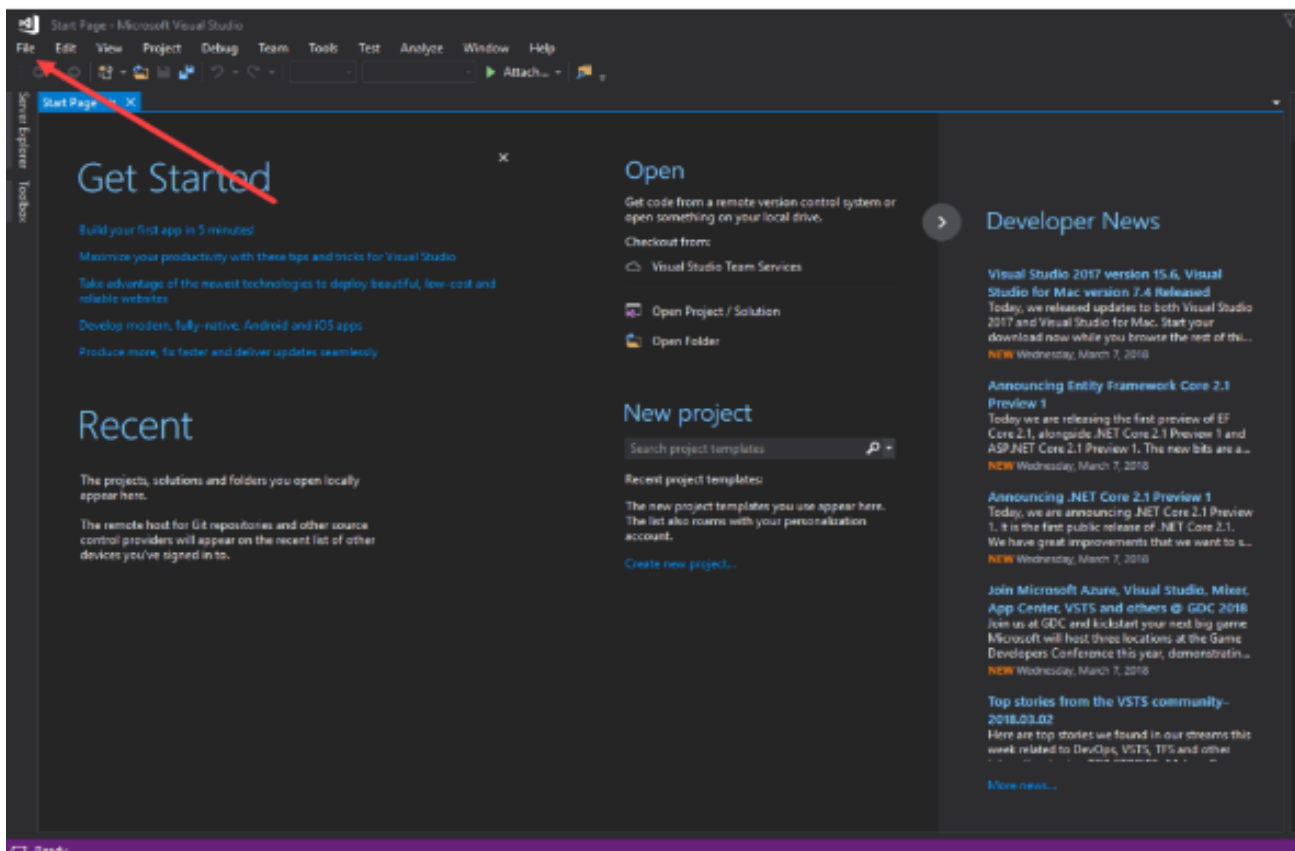
Unity Hub (Bottom):

- Installs:** Shows the installation status of Unity 2021.3.5f1 (LTS) for Windows. The file path is C:\Program Files\Unity\Hub\Editor\2021.3.5f1\Editor\Unity.exe.
- Buttons:** "Locate" and "Install Editor" (highlighted with a yellow circle).



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Conclusion:

The installation and setup of Unity and Visual Studio for Virtual Reality (VR) development can open the doors to a world of immersive experiences and applications. VR is a transformative technology with vast potential, and by following the procedure outlined, you can embark on a journey to create virtual environments and interactions that have the power to revolutionize various industries and fields.