

Motivation

Virtual reality is one of the most emerging technology and it is expected to have high demand in many domains in up coming future. It is the use of computers technology to create a very simulated 3D environment and imerses the user into virtual world.

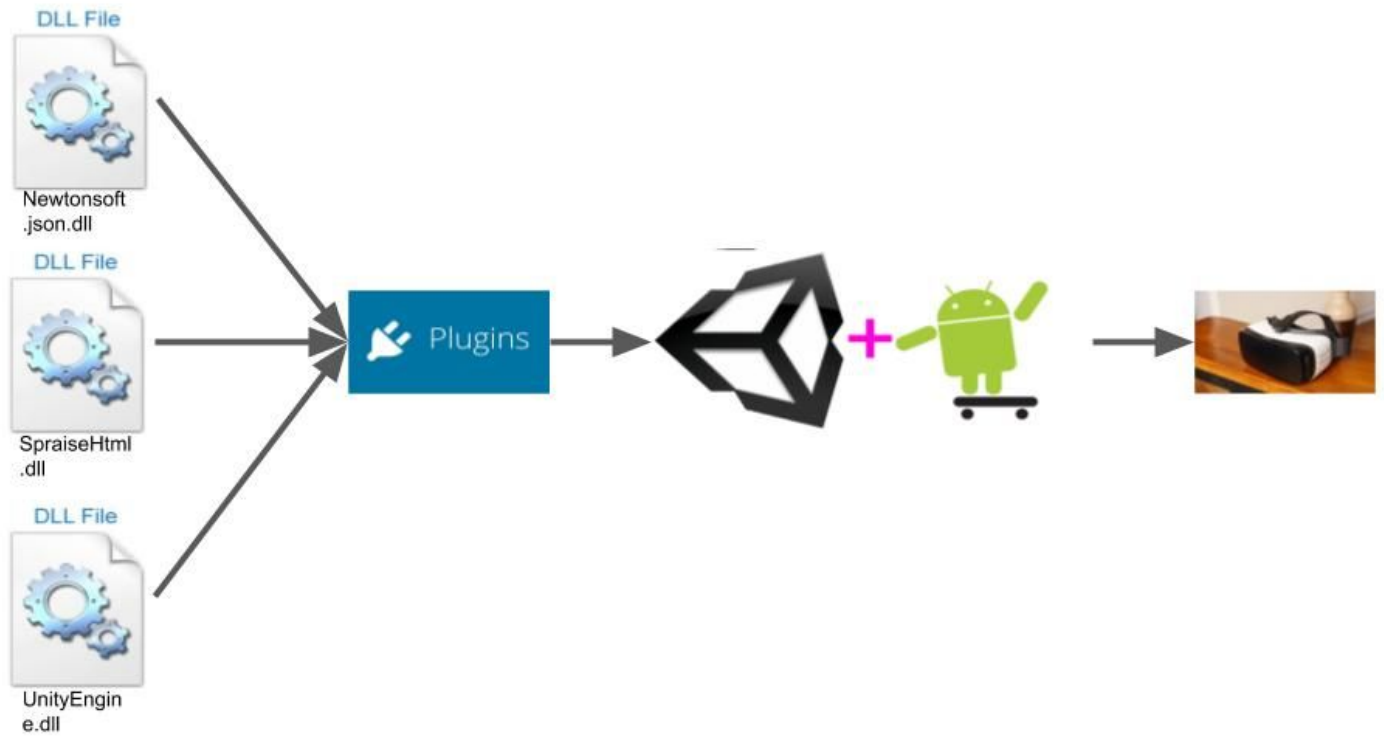
For browsing and opening many tabs in Google search we do not need to click on next tab button every time instead we have to just turn our head a little and a new screen will be there.

VR headset is a device used to stimulate our senses together in order to create the illusion of reality. By designing aircraft in Virtual Space we can explore a virtual mock-up of the entire aircraft and can work to find and resolve issues faster than usual. for example, Oculus Rift, HTC Vive, Oculus Go, Samsung Gear VR, Google Cardboard etc.

Technology & Requirement

- ☐ Unity3D Editor
- ☐ Android SDK
- ☐ Google VR SDK
- ☐ Newtonsoft.json
- ☐ Visual Studio
- ☐ Google Api key
- ☐ Custom Google Search API
- ☐ Google Cardboard VR Headset
- ☐ Android Mobile

How It Work



Methodology(Solution)

The solution for this project is divided by mainly three steps as following:

1. Building Plugin For the Unity3D

For building Plugin for unity3D we did the following steps:

- ❖ Started with creating a project named *SpraiseHtml* of class Library using(.NET Framework) on Visual Studio 2017
- ❖ Adding References of UnityEngine.dll from Unity into our project
- ❖ Adding Newtonsoft.json framework via *`Manage NuGet Packages`* to store and manipulate json data
- ❖ We have created our credentials for requesting and scraping the google results,Such as Google api key & custom search api key
- ❖ Use the Credentials and make method *`Search and next Page`* for class 1
- ❖ Build our library
- ❖ Find all .dll files generated by building the library in bin/release
- ❖ Our Plugin is ready

2. Use that Plugin in Unity3D

For using the Plugin we have created on Visual Studio we did following steps:

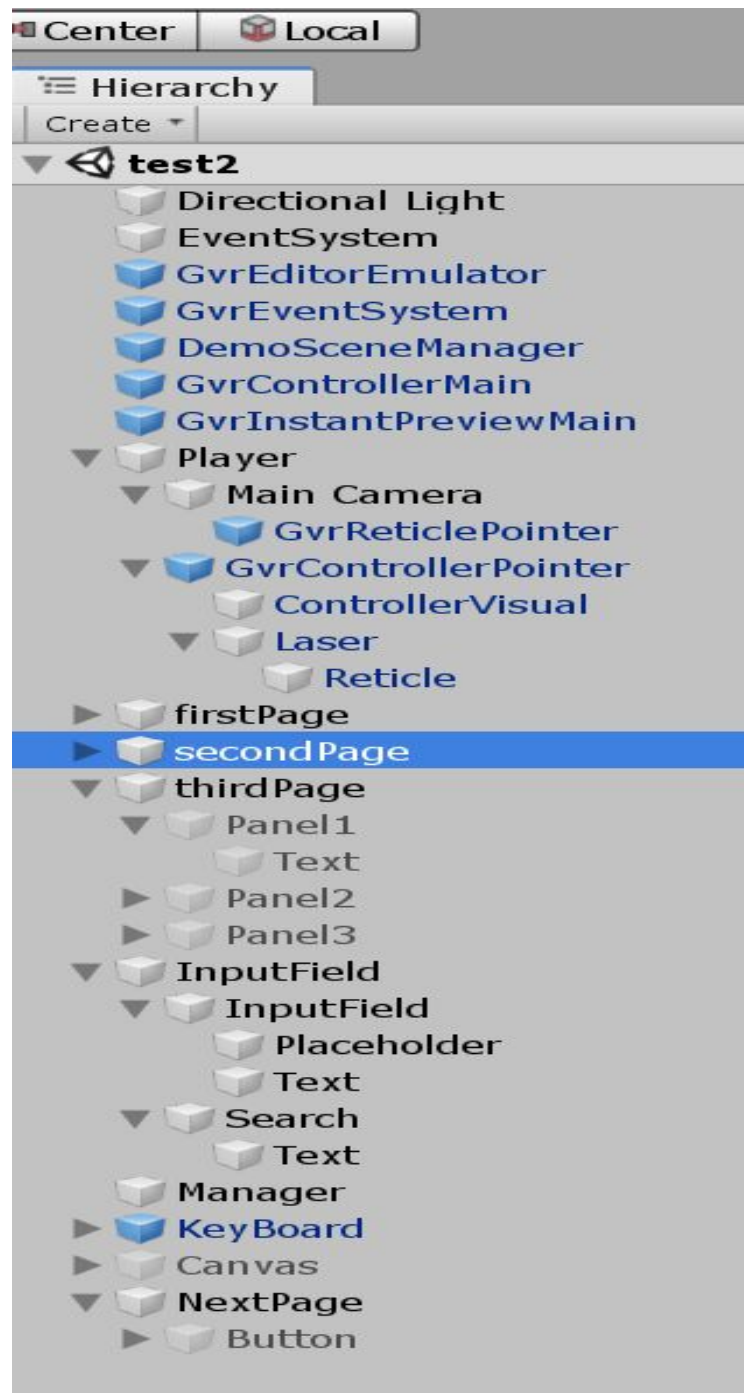
- ❖ We copy all .dll files generated by building library into Unity Assets/Plugins/Dll Folder
- ❖ In MainScript we use the plugin by adding on top *`Using Spraise Html`*
- ❖ Make Instance of *`class 1`*
- ❖ Call methods of *`class 1`*.

3. Create 3D user interface in Unity3D

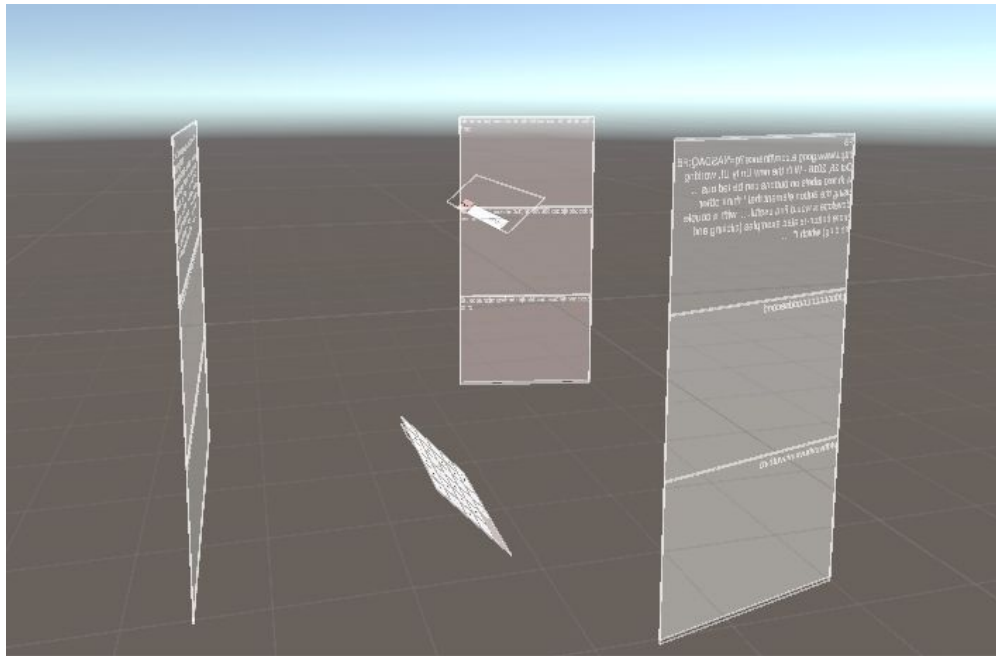
This is the creative part of the project showing results into virtual world.

We did the following thing to show results:

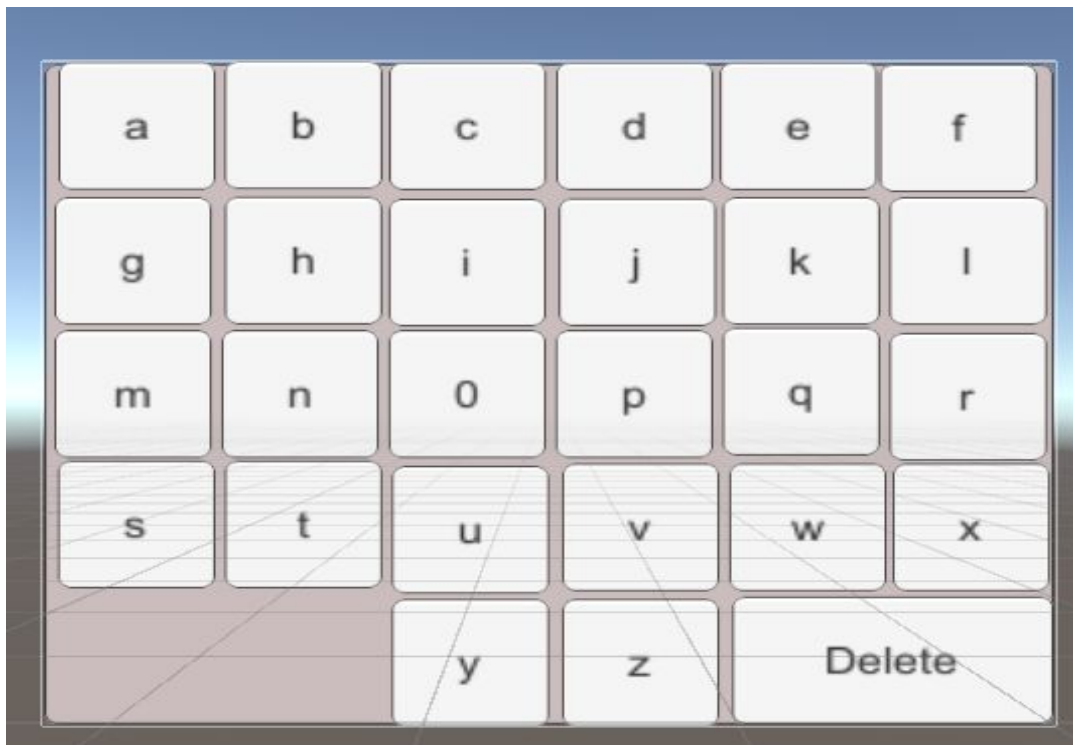
- ❖ Start with Creating Project on Unity3D named *`Sdd`*
- ❖ Import Google VR Sdk for running our app on Google CardBoard
- ❖ Use CrEdit Emulator, GvrEventSystem, GvrControllerMain, GvrInstantPreviewMain, GvrControllerPointer, GvrRecticalPointer from Google Vr for Handling head move, click, other event for running smoothly our app in VR Headset.



❖ Created our scene .



❖ Created Virtual Keyboard for taking input from user via retical.



- ❖ Created Search Box and Button and attached all related script to all buttons and all.



Result Screenshot

