**Resources Collections**

**Software:**

**Unity & Unity’s asset Store:**

Unity is a free game developing software; It is very popular and contains a lot of resources and materials in itself for game developers such as artwork, animations, models, and many more things in the unity store. There are many free assets too and even the ones that are not free have somewhat a reasonable and cheap pricing.

We will be using Unity to develop our android game. The Unity game engine uses the c# programming language which I , Kunal Prakash as the developer am comfortable with and more used to. It will also help with obtaining assets that will be needed for our game development. There are also additional nice features with unity such as you are able to use visual studio with it when coding.

**Android Studio:**

Android studio is software made for developing android apps and has additional useful tools such as android phone emulation. Although we won’t be using android studio for developing a game, it still might be useful for running the game on Android Studio’s emulation feature so that we can test the game out.

**Visual Studio**: <https://en.wikipedia.org/wiki/Microsoft_Visual_Studio>

Visual studio is also very popular IDE (Integrated development environment) for developers and can be used for many things such as web development, computer programs, web apps, web services and even mobile apps. We will mainly use visual studio for coding and its Intellisense feature that helps with coding.

**Unreal Engine’s asset store:**

Unreal Engine is also similar popular game development software as Unity, It is the competitor of Unity and is also free. The reason for selecting Unreal engine eventhough we already have Unity as our game development software is because we can get assets from unreal’s asset store which will mean that we will have plenty of resources available for developing a game. So if theres something we are looking for such as artwork in the unity asset store and we cannot find it, we could always search the unreal asset store to see they have something we like.

**Office 365:**

We will be using Microsoft software such as word, excel, powerpoint for things such as documentation, presentation and creating graphs. These software will be very important for us as we will be relying on it a lot and will be one of the most commonly used software throughout our project.

**WhatsApp:**

WhatsApp is only one of the many ways we communicate between each other. We also use whatsapp for sharing files together.

**Adobe Photoshop**

Photoshop is a popular software used for imaging and graphic design. <https://www.adobe.com/nz/products/photoshop.html> This can help us with designing our own art or combining multiple art together. It is a very handy tool and since we are building an android game, the art or visual will play a big role during our planning and design.

**Github**

Github is a very popular website for developers to share and work on a project together. The website will be used to upload our files, share files and update each other’s files whenever we can. This will provide us some flexibility in working together in a nicely organized manner.

**Stack overflow website**

Stack Overflow is a very handy and popular website for developers all around the world. You can answer or ask questions relating to development and coding. This will be very handy for us as we will require assistance from time to time if we come across any errors so this website will help us in finding solutions to our problems during development.

**Hardware:**

**Fast PC Desktop:**

We will be using the PC desktop to run all the software that will be required when developing the game. The desktop is fast enough to run everything efficiently and without a problem. Desktop is also used for communication and researching.

**Android Mobile Device:**

A cheap android device will be used for testing purposes only. It will play a important role in testing when we try different functionalities and will help us debug problems/errors.

**FLashdrive/USB storage device**

We will need to backup different versions of our game development as we progress throughout the development. This will ensure we have working versions to fall back to if we come across any situation that might ruin or completely destroy our game file.

**Project Risks**

Our project will contain many risks and we will identify these risks and try to manage it in order to make sure everything goes smoothly and that our game’s quality is good.

**8 Weeks Deadline Time:**

We are given 8 weeks to complete our project. This can be very challenging task for us as there is some really time consuming factors that will be a factor in our project. Things such as testing, debugging and fixing errors will consume a lot of time. Same goes for researching; researching can also sometimes take a long time to find the relevant information or resources that will help us in our project.

**Amateur Game developer:**

I (Kunal) am new to game development, this project being the second game I would need to work on and the first time developing a game specifically designed for android with 2D style. Many things such as unity software and unreal engine are relatively new to me. Overall game development is a learning experience as well so there will be many issues regarding the development. There is also a risk in implementing certain functionalities, due to lack of game development experience I will need to decide that I do not select a functionality that is too complex and out of my understanding or skillset.

**Time Management/Scheduling:**

Both I (Kunal) and Suraj have different time schedules due to different lecture timings and availability. So arranging meetings can be a little bit of a challenge for us. Suraj has a job that he has to go to so things like these can be risk and may delay our tasks that need to be completed.

**Finding assets for the game:**

Our project will be heavily reliant on game assets, both during game development and also before game development starts. When it comes to mobile game development in the education category for kids, you won’t find many assets and examples that will help you develop an educational game for kids. Artwork, animations, characters and many more things will be needed to develop our game which should also be suitable for children so finding these assets can be a challenege and a risk if we are not able to get what we need.