



## Student Initiated (SI) Project Proposal

<b>Name of Student:</b>	Perakam Jayadithya			<b>Admin No.:</b>	2300355A
<b>School:</b>	<input type="checkbox"/> ASC <input type="checkbox"/> BUS <input checked="" type="checkbox"/> IIT <input type="checkbox"/> DES <input type="checkbox"/> ENG <input type="checkbox"/> HSS	<b>Current Year of Study:</b>	<input type="checkbox"/> 1.1 <input type="checkbox"/> 1.2 <input checked="" type="checkbox"/> 2.1 <input type="checkbox"/> 2.2 <input type="checkbox"/> 3.1 <input type="checkbox"/> 3.2	<b>Diploma:</b>	Information Technology
<b>Project Category:</b>	<input type="checkbox"/> Entrepreneurship & Innovation <input type="checkbox"/> Health & Fitness <input type="checkbox"/> Sustainable Development <input type="checkbox"/> Arts <input type="checkbox"/> Language <input type="checkbox"/> Cultural <input type="checkbox"/> Social Issues <input checked="" type="checkbox"/> Technology & Science <input checked="" type="checkbox"/> Media Creation <input type="checkbox"/> Others			<b>If you have chosen others, please specify:</b>	
<b>Project/Competition Name:</b>	NA				
<b>Personalised Project Title:</b>	Virtual Reality Game Development				
<b>Target beneficiary/beneficiaries (if applicable):</b>	NA				
<b>My Learning Goals</b>	<p><b>Learning Goal:</b> <i>E.g. to work on my marketing skills.</i></p> <p>Please state at least 1 learning goal. Refer to Sample Proposal in LMS. 2 or 3 goals will suffice.</p> <p>I want to learn more about 3d modelling such as making humanoid models, rigging and also making a model based on a reference image. I also want to learn more about mathematics and physics through programming the game logic in the game engine. Furthermore, I want to learn about interactions of a player with the virtual world. Lastly, I want to learn about utilising SDKs (such as the SteamVR SDK in the project's context) to perform the needs of my app.</p>				
<b>What is my project about?</b>	<p><b>What am I going to do? (50 words)</b></p> <p>I will be creating a virtual reality game. I will learn create and animate my own 3D models for most of the assets. I will also learn the basics of game design and development, specifically for virtual reality games. The final game will likely be a stationary game (e.g. a target shooting game, beatsaber)</p> <p><b>How am I going to do it? (100 words)</b></p> <p>I will learn 3D modelling and rigging in blender through free tutorials on sites such as YouTube. I can also use assets from an asset store for background models such as trees. For game development, I can preferably use the Unity game engine since I have some experience with both the engine and scripting language (C#). I can use either the SteamVR SDK or the Oculus SDK since I own a Meta Quest 2 virtual reality headset. The programming side can be learnt through free online resources and free documents.</p>				



## Guided Learning GTPI302

	I can also use LinkedIn Learning with my student account to learn more. Throughout the project, I will ask my learning facilitator for help when needed.
<b>What will I show as evidence of my learning in my project portfolio?</b>	<p><i>E.g. Report, prototype, checklist, glossary of terms, reflection, draft designs, surveys, survey analyses, interview transcripts, etc. (50-100 words).</i></p> <p>Since throughout the project I will be following tutorials, I can show the mini projects I did and explain the skills I learnt from them. I can show the assets I made and the source code for the final project. I can include comments/documentation for the code to show that I understood what I was doing. Furthermore, I can have a writeup to show what knowledge I utilised while making the final deliverables. Then, I can have a short video to demonstrate the gameplay. Lastly, I can create a playable executable of the game.</p>
<b>What else would I like to say about my project?</b>	<p><b>Share how this project is important or meaningful to you personally.</b></p> <p><i>E.g. I have never done marketing before. Now I have a product which I would like to market. I really hope to pick up some useful skills and ideas on how to market my product and get opportunity to meet some industry expert to mentor me.</i></p> <p>While my diploma has programming and development, it does not include much about game development. However, the reason I had an interest in programming and computer science when I was young was due to my interest in game development. Hence, I feel that I am missing some important concepts such as game design and 3D modelling which I do not learn in my current diploma. Furthermore, I have a great interest in mathematics and physics, and I feel that I can learn more about them through this project. I feel that I have been losing proficiency in those skills since my diploma does not utilise those skills much.</p>