Cross Platform Development – Project Research Workbook

This workbook will help you focus your research for your project.  
Once you have answered these questions, use this information in your Technical Design Document.

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| **Briefly describe the cross-platform application, game or simulation you are researching.**  **(This is your initial idea to focus your research. The application described in your design documents or your final build may end up being different from this description)** |
| My aim is to create a game that will be a top down zombie shooter playable on Android, pc and web that is inspired by box head.  The player is trying to survive and kill zombies with his gun.  Zombies will spawn in randomly and will either be big and slow or small and fast. |

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| **List the software you will use to create your project.**  **Include any third-party plug-ins, APIs or libraries, if known.** |
| Unity 3D  Visual studio community  Paint.net  Word |
| **With reference to the above list, what legislative frameworks or organisational standards govern the use of this software (including any third-party plug-ins, APIs or libraries).**  **For example, include any End User Licence Agreements (EULAs), terms of service, copyright notices, licencing information, developer guidelines, coding standards, or similar.**  **(Information in the AIE Student Handbook may also be relevant in relation to the use of software on campus machines.)**  **Include URL links where relevant.** |
| Unity teams and service - <https://unity3d.com/legal/terms-of-service>  OpenGameArt.Org Public domain Licence - https://creativecommons.org/publicdomain/zero/1.0/  Visual Studio licence – https://visualstudio.microsoft.com/license-terms/mlt031819/  GitHub terms of service - https://docs.github.com/en/github/site-policy/github-terms-of-service#the-github-terms-of-service  C# coding standers best practices - https://www.dofactory.com/csharp-coding-standards |

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| **List the cross-platform installers and installation methods you will use, or the specific binary formats that are required to deploy the game.**  **This list should include all platforms you plan to deploy your game or application to.**  **(Your game or application must be deployed to at least two different web browsers, and at least two different digital devices – one of which may be PC)** |
| WebGL - GitHub pages deploy  Android – install the APK file  Windows – extract the zip file containing the pc build. |

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| **What IDE will you use?**  **Identify your reasons behind this choice (ignoring the pre-configured environment on the campus computers).** |
| Visual Studio – Preferred IDE  Visual code – used to write the md files |

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| **Identify the cross-platform libraries, plug-ins, or APIs you will use.**  **Mention any restrictions or limitations that exist with these libraries on each target platform.**  **For example, some parts of the .NET class libraries implicitly depend on threads, but some platforms (WebGL) do not support threads.** |
| Libraries used:  UnityEngine  UnityEngine.SceneManagement  UnityEngine.UI  TextMeshPro |

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| **What issues exist, or do you expect might exist when developing for the target platforms you have identified?** |
| I don’t have an android phone so I couldn’t test the android build myself.  I expect the phone controls to slightly change the games feel so the player will not have the same experience as pc or web will have. |

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| **List any areas in your game where pre-written scripting packages could aid in development.**  **For at least one of these items, identify a package from the Unity Asset Store (or another source) that may be suitable.** |
| Joysticks – on the unity store there was a joystick packages that contain assets and scripts to use for the android build  Nav Mesh agent – to help the enemy ai.  Rigid Body  Box colliders |