User Interface Programming – 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 GUI Design Document.

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| Briefly describe the application or game you will design and create the user interface for.  The graphical user interface you design may be just a piece or sub-section of a larger application.  This is your initial idea to focus your research. The application described in your design document, or your final build, may end up being different from this description.  Keep in mind that you may want the project you develop in this subject to integrate with the project you create for the subject *Cross-Platform Development*. |
| The game that will be designed will have its main focus around matching items to enemy types. The player will have an inventory of weapon types that will only deal its damage against an enemy of the matching type. Enemies will switch their types after being hit and will have a health bar to indicate how close to being defeated they are.  To add a level of skill to the game a timer may be implemented that will make the enemy attack the player. A health bar will be put in giving the player a number of chances to react before the game ends. |

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| Identify any industry best practices, standards, codes of practice, or similar requirements or frameworks that may be applicable to the graphical user interface you are designing.  You may want to consider developer guidelines for app or game stores, video game rating regulations, and industry best practice reflected in online blogs, guides, or conference recordings. |
| Drag and drop.  Layout groups  Singleton GameManager  Settings |

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| Describe the functionality of your GUI.  Use diagrams or mock-ups to detail the front-end interface (what the user sees).  Describe the events or processing that occurs in response to actions the user performs using the interface (i.e., the back-end processing). |
| Backend:  Enemy types- The enemy will have 4 types they cycle through for the player to match, changing each time they are hit.  Timer- To add a level of pressure to the game, a timer countdown until the current enemy can attack. If the enemy is defeated the timer will reset, giving the player time to react to the new enemy.    Events: As a response to the player dragging a weapon into the equipped weapon slot a check will be sent to the enemy to compare the weapons type to the enemy’s current type. If the types are matching the enemy will take damage and will switch types. |

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| What prototyping tools are available to you? Which one(s) will you use? |
| Debug.Log on code. |

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| What resources are required for the development of the user interface?  Include both software, and assets. |
| Unity 3D.  Visual Studio.  2D art assets for icons and enemy sprites. |

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| List and describe the information that is contained within a design document used to describe the design of a graphical user interface.  In how much detail is each piece of information typically described?  What diagrams may be included? |
| A design document for a graphical user interface should include  A general guideline for the implementation of each  A mock-up of the user interface should be included in the design document that includes a rough sketch of each component as well as labelling for their purpose. any UML diagrams for more complex parts of code. |