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 may 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 |

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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- 4-7 types using enums or ints. Get type that isn’t currently active (or get last type). On switch weapon check if type is matching, if it is then do damage to enemy.  Timer- if(deltaTime – last hit > cooldown) enemy will attack the player.    Events: As a response to the player dropping in a weapon from the inventory to the equipped weapon slot, the program will run a check to compare the type of the weapon to the enemy type. If the types are matching then the enemy will take damage. |

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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? |
| Inventory: The player will have  Health bars: player and enemy health will be displayed using a bar and overlapping text that displays their max health and current health (e.g. 2/7 hp). As the player or enemy are damage the bar will shrink horizontally. |