**List of Architecture Needed:**

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|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Engine** | **Main Menu** | **Options Menu** | **Game Class** | **TextBox**  **(likely in Game)** | **Credits** | **GAME IS FUNCTIONING AND PLAYABLE!!!** | **EXTRAS** | **Keybinder Menu** | |
| **About Menu** |
| **FullScreen Button (for Windows)** |
|  |  |  |  |  |  |  |  |
| **Inventory**  **(array contained within Zanaj)** | **Item** | **CHEST/ BOX** | **Weapon** | **Gun subtype** | **Bullet** | **Melee** | **More Weapons!!!** |
| **Potion** | **Special Potion** |  | **Keys? For doors?** | |
| **Key Items** |  | |
|  |  |  |  |  | |  |  |
| **Characters** | **Zanaj** |  | | | | **Heroine Character** | **Magic** |
| **Voice/Tutorial Character** |  | | | |
| **NPC** | **Reg. NPC** |  | | |
| **Shopkeeper**  **NPC** |  | | |
|  |  |  |  | | |  |  |
| **Enemy** | **Minor Enemy Subclasses (at least 3)** | **Projectiles (may be a subclass of bullet, might not)** |  | | | **More Enemies!!!** | |
| **Boss Enemy** |  | | | |
|  |  |  | | | |  |  |
| **Level Loader** | **Level Class** | **Tile** | **Miasma Areas (3)**  ***Class and Map*** | **Miasma** |  | **More Areas** | **Dungeons** |
| **Rooms** |  | |
|  | | |

**We will also need a StreamReader/StreamWriter class set or a BinaryWriter/BinaryReader class set for reading and editing save files.**

* What classes will you need in your game?

For the game, all of the above listed items will be necessary to have (aside from anything behind Extras of course).

* How will your characters, enemies & NPCs be handled?

Characters will likely be controlled by using arrow keys or “wasd”. I imagine we will be using mouse scrolling for a doubly linked list of potentially equip-able weapons on the quick weapon selection GUI. Inventory will be dealt with via use of an array or a List. Inventory will have a locked limit.

As for NPC’s:

* You can speak with any one you see.
* Some MAY offer quests (as of yet undecided)
* Shopkeepers will be a subclass with an alternative interaction option for picking items to purchase using Genna’s currency
* There may be an NPC which moves (the Heroine if we have time to implement her)
* Enemy algorithms have not been entirely determined but, as Jordan will mention in his design document,   
  “The game will be real-time, with enemies attacking at will, and the player being able to run, jump, or attack at will through key/mouse presses.”
* Will you have some common base classes that are extended by different entities in your game?

All base classes for most major in-game elements are listed in the graph above. Anything to the left is something which all things in front of them may be dependent upon. It is similar to a Gantt chart

That said, we will likely have a Level class and subclasses, as well as a characters/NPCs and Enemy class with subclasses added accordingly.

* Will you need any abstract classes and/or interfaces?

Level class and Enemy class and Character class and Item class.

* How will input be handled and how will your character know about it?

I will probably build the character’s input reading procedure through the Zanaj Class (Hero’s name). This will be called, in turn, by the Level subclass which will be called upon by the Game class.

I expect that all Items Highlighted in Yellow will be finished for Milestone 2, Black Text no highlight for Milestone 3, and Red text for Milestone 4 and if we have time. All items are subject to change and this schedule is entirely tentative and therefore also potentially subject to change.