Game Proposal: Windfall

CPSC 427 - Video Game Programming

Team: MadBep

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Story:

The game takes place in the world of Windfall. The player begins with the hero character Kage who sets out on a journey to restore the corrupted lands inflicted by the evil Necromancer. The player begins with a tutorial in Kage's starting village, introducing the player with the game's general mechanics. After which, the player will begin his/her uninterrupted journey to the castle where the Necromancer awaits. There will be three unique villages that the player will encounter on the way to the castle. Each village will have its own local map where the player journeys through to defeat enemies in the form of corrupted villagers and unique monsters. Opportunities to recruit three new members into the player's party will present itself at fixed locations. Near the end of the game, the player's party will consist of four characters. During battles, the player selects from a variety of actions for each playable character. This includes a real-time aiming system where the player can draw a bow to aim at specific weak points of enemies. The main goal is to stay alive throughout the game. To win, the player must defeat the Necromancer and save Windfall.

Technical Elements:

2D – The simulated aspects of the game occur within a 2D plane.

Controller characters – The player takes control of several characters during turn-based battles, selecting from a variety of different actions. In the local maps, the player controls the starting character, the Swordsman, as the 'leader' where only that character's sprite will be displayed and moved.

Rendering – The 'leader' character, the Swordsman, will be rendered at any one time on a local level. To generate next levels, a fade in fade out animation will occur. Raster/Vector images will be the imaging used. One of two levels of environment will be rendered at any one time, namely Mission Local Map or Battle Scene. A World Map implementation is currently tentative. All playable characters are rendered during battles. Camera is fixed to the player character, where when the character moves to the edge of the local map, surrounding areas are rendered black.

Assets – Sprites will be used for characters, enemies, chests, barrels, boxes, and other interactable objects. Sound effects such as hit sounds and UI selection sounds will be present. Background music representative of different situations will also be included.

Decision making for enemies – During battles, enemies may target characters with lower health and lower defense. Enemies will have varying amounts of potions to use during battles.

2D Physics – Entity movement is based on 2D physics, allowing entities to collide with static structures and barriers. Entities can also react with barriers by destroying them. Invisible walls can also be implemented to prevent players from going into prohibited areas. During battles, the enemies' sprites will have two different hit boxes, one for the head and one for the body. The player will be able to aim and different effects will occur based on the arrow's (or other range attacks) contact with the hit boxes.

Animation – Attack, skills, movement, death, and hit animations will be included.

Particle effects – Some blood effects upon receiving physical attacks from an opponent will be present, skill executions in battles such as explosions, interaction with static objects in local maps such as chests, walls, and barrels.

Save games – The player can save the game at any point outside of battles and load a game to resume it later. Save/load code must correctly persist all aspects of the simulation state.

Advanced Technical Elements:

Aiming system that allows the implementation of real time aiming combat into the turn-based system. Player would control and aim at real time with an arrow for instance, to potentially hit a critical point of the enemy, e.g., the head.

- **Impact:** It will make the game less interesting to play, since the player would be just clicking to hit the enemy without any real-time input or real-time strategy.
- **Alternative:** Have more skills, create a different system to incorporate other real-time techniques to engage the player during turn-based battles.

Skill system for each playable character is available and varies with each character to promote player choice in battle strategy. Skills include health, attack, defense, speed.

- **Impact:** It will make the game less interesting to play, since every playable character will basically perform with the same stats.
- **Alternative:** Have more variety of items that can help with these features.

Level variety will be implemented where each level will be distinguished with unique map layouts for a total of 3 different elements including volcanic, snowy, forest. One final castle level will be included to host the final boss battle.

- **Impact:** Players will feel bored playing through the same map layout for the entirety of the game.
- **Alternative:** Have one long map layout split into parts that are implemented for each playable level of the game.

A loot system to complement the item system consisting of attack, heath, and mana potions, with possible implementation of ammunition such as arrows. These items can be gained through chests found throughout the levels and randomly dropped from battles. Having a loot system allows the player to look for and interact with objects placed throughout the levels. Certain items dropped at fixed locations are guaranteed drops, for example end-of-level boss drops.

- **Impact:** Players would not be motivated to move through the levels.
- **Alternative:** Most items are given to the players from the start.

Leveling system for each playable character, encompassing the starting hero character and future recruitable characters. When a character levels up, skill points are awarded, allowing the player to assign the skill points in whichever skills the player desires.

- **Impact:** It will reduce the sense of progression for the player and makes it less rewarding to play.
- **Alternative:** Do not implement but focus more on perfecting the real-time aiming system during battles to engage the player.

Shop system: Allows players to purchase consumables to enhance the character's overall fighting survivability. The shop will only be available before the start of each local map. Player is also able to sell off items gained during the journey. With a shop system implemented, coins will be part of the loot available to players.

- **Impact:** A lack of a shop means a lack of a currency system which removes player choice in managing their inventory of potions and possibly ammunitions as well as one less loot item to look forward to.
- **Alternative:** Do not implement, item system will suffice.

World map is available to guide the player during his/her journey through Windfall. The world map consists of a tutorial village, forest village, volcanic village, ice village, castle.

- **Impact:** A lack of overview on the overall setting of the game can result in player dissociating with the character motivation and world plot. Player would also be unable to retrace their steps to previous levels quickly when needed.
- **Alternative:** Implement a simple pop-up window screen that allows the player to click on the levels the player wants to navigate to.

Platforms that allow players to jump to, allow the player to fight unique enemies for unique loot.

- **Impact:** There would be less content within each level for the player to experience, which makes the levels less interesting.
- **Alternative:** Do not implement.

Devices:

Character movements will be controlled with keyboard controls.

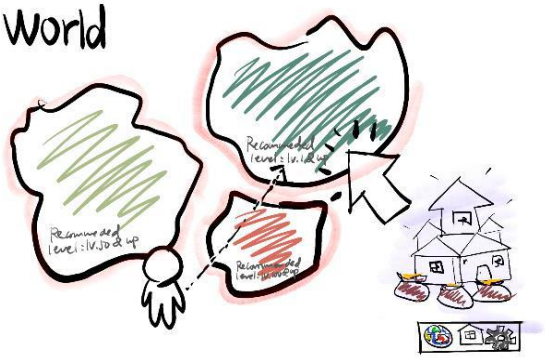
- "A" key to move left.
- "D" key to move right.

- “Left-click” to execute real-time attacks in battles and interact with objects in local maps.
- “Esc” key to open a window with options: Continue, Save, Load, Exit to Title, Exit to Window, Volume Control.

Otherwise most in-game controls are mainly through mouse clicking.

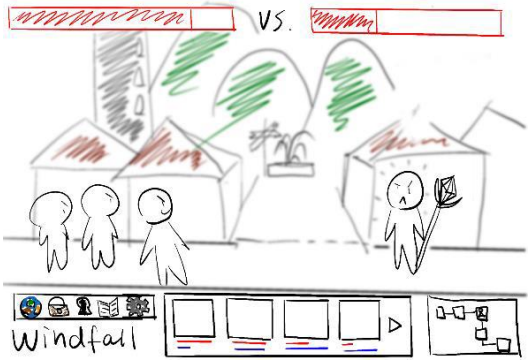
Concepts:

Start Screen



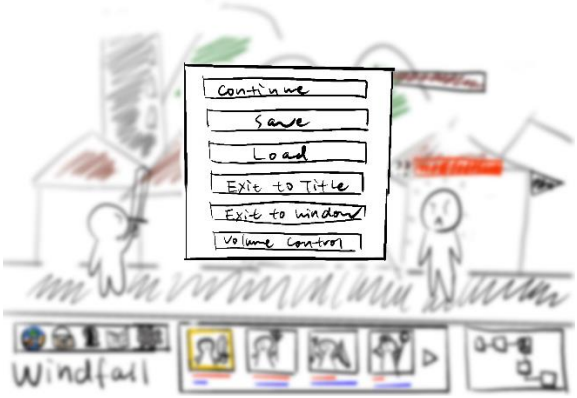
World Map

Local Map



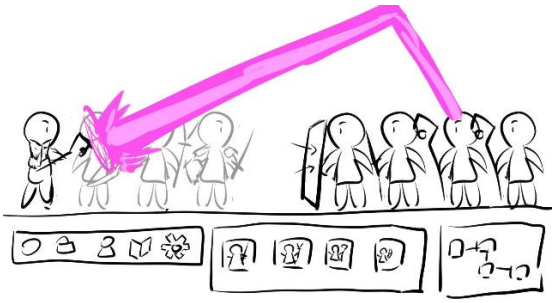
Battle Screen

Local Map 2



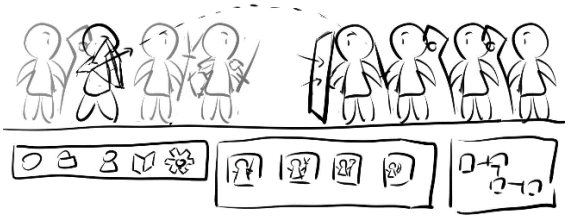
Pop-up options window

Battle Screen (using piercing spell)



Battle Screen (using reflective spell)

Battle Screen (using fire spell but blocked)



Battle Screen (using aiming system to target)

Image of enemy hit boxes and their respective attributes

Tools:

Audio assets: https://itch.io/game-assets/free/tag-audio
Sprites/Background images/textures: https://itch.io/game-assets/free/tag-2d
Blender
MeshLab

Development Plan:

Skeletal Game

Week Sep 27:

- Refactor a1 code to fit game environment

- Add player mage, enemy mage and fireball sprites as PNG
- Add button to launch fireball at enemy (Implemented basic aiming system)
- Sound effects for fireball and enemy being hit
- Implement collision between fireball and enemy

Week Oct 4:

- Add health bars for companion and enemy
- Add an indicator for whose turn it is
- Let the enemy launch a wall sometimes, determined by random chance if it spawns or not
- Add death animation for enemy
- Convert sprite PNG's to OBJ's to use as meshes

Minimal Playability (With some goals shifted from the weeks Sep 27 and Oct 4 to here)

Week Oct 11:

- Implement the Swordsman sprite
- Basic character movement (moving left and right: free roam)
- Basic collision (Player with walls / floors)
- Implement skills (Health, attack, defense, speed)
- Implement a turn-based battle system

Week Oct 18:

- Sprites for common objects like chests, barrels, walls, doors)
- Interaction between the player and environment objects
- Implement animations for player movement, dying, attacking, abilities

Week Oct 25:

- Transition between free-roam <--> battle system
- Implement sound effects
- Implement BGM soundtrack
- Give Mage 2 more abilities

Playability

Week Nov 1:

- Implement Archer with 3 abilities
- Implement Healer with 3 abilities
- Implement second and third level maps

Week Nov 8:

- Implement Swordsman with 3 abilities
- Implement potions and place them into the environment

Week Nov 15:

- Design start screen
- Design pause/options screen
- Implement fourth level maps
- Implement final boss battle

Final Game

Week Nov 22:

- Implement tutorial level
- Robust user testing
- Finalize all aspects of the game

Week Nov 29:

- Final touches to fix bugs

Filled out the Milestone Submission Form? Yes