

Project Proposal

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Objective: To create a java-based computer game for our Senior Project using the Greenfoot IDE.

Description: Loosely based on the NES version of Castlevania, this game will be a 2D Egyptian themed platformer with scrolling edges with the screen centering on the character. Various aspects of Egyptian mythology will be referenced throughout the game. The working title of the game is "Pyramid" (subject to change).

Storyline: A pharaoh is banished from his own kingdom by his evil advisor, and must return to defeat him as well as reclaim his kingdom. (Subject to change)

Navigation: Player navigates the menus using the mouse, and controls the character using the keyboard. Character movements include walking left and right, jumping, ducking, and doing various maneuvers while using weapons. A unique keyboard key will be designated for each function.

Menus: Upon starting the game, the player will be presented with a welcome screen containing links that provide various functions such as Start Game, Tutorial, and Credits. During game-play, a player may pause the game in order to access the Inventory menu.

Game-Play: The game is divided up into a series of levels which the player must complete in order to advance to the next level. Enemies and traps will be present on each level with the sole purpose of hindering the player. The character will be able to pick up and collect weapons and items to help defeat enemies and navigate around traps. Each level will conclude with a final boss.

Weapons: The character will start off with a standard melee weapon that can either be upgraded or exchanged for more powerful weapons later in the game. Only one weapon can be used at any given time, but if the player picks up more weapons, they will be held in the inventory where the player can exchange for the main weapon at any time. Some weapons may be more suited for different enemies, and some bosses may only be killed using certain weapons. Weapons may include a staff (melee), spear (melee), daggers (projectile), and a staff that shoots solar beams (melee and projectile).

Enemies: A variety of enemies will be present in every level. Enemies will look visibly different from one another (for example, the player will not confuse a mummy for a scarab), and will exhibit different behaviors. Generally, the player will be able to kill each kind of enemy, though there may be exceptions. Loot, such as gems or coins, may fall from an enemy when it is killed, and may be picked up by the player. Enemies include mummies, snakes, scorpions, golems, leopards, jackals, and scarabs (subject to change).

Items: Different kinds of items will be placed throughout the level to aid the player in their quest. Items may increase the character's life meter, increase points, or allow the player to cross an otherwise impassable trap.

Traps: A trap is a section of the map that requires either timing or a special item to pass. If a player fails to meet the requirements necessary to pass the trap, the character will either die or face a decrease to its life meter. Traps requiring a special item (such as a rope or key) to pass include spiked pits and blocked doors. Traps requiring timing to pass include falling spikes from the ceiling, moving platforms or timed falling platforms.

Inventory: Extra weapons and items that the player picks up will be stored in the inventory, which will only be accessible when the game is paused. While the inventory window is open, all the contents will be visible. The active weapon may be switched out for one in the inventory, and items may be selected for use.

Miscellaneous: An in-game timer will be present to encourage the player to move swiftly through the level, as well to time any weapons' cool-down periods. A point system will be implemented to offer rewards for completing certain actions, such as picking up gems, defeating a boss, or finishing the level quickly. A life meter will be visible on the screen to keep track of the characters remaining life. Regardless of the meter's status, it will always be regenerated at the beginning of each level and can be replenished by picking up certain items.