

CMPT 276 - Project: Phase 1
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Thematically, we've chosen our project to be mine themed. To comply with project requirements, we've decided on the following:

Main Character

- A miner, optionally decorated with mining gear. The player controlled character can move north/south/east/west in the field. The character gains points upon contact with a reward object, and loses points upon contact with an enemy. Player character spawns on the entrance

Enemies

- Our stationary enemy is a snake, our moving enemies are bats and rats. Bats are the standard moving character, rats should move faster than bats. Feature-wise, on contact each enemy will deduct a certain amount of points, then grant the player character invincibility temporarily and freezing. Moving enemies will track the main character and move toward it via the cardinal directions. Interactions between stationary and mobile enemies do not modify points lost. Moving and stationary enemies should be stored under one class, and instantiated using factory methods.

Rewards

- Regular Reward - Gold Ingot, Bonus Reward - Gems
 - Gold ingots are stationary and randomly generated. Upon contact they grant points to the player character. Upon collecting all the regular rewards, the exit gate opens. Gems grant a point multiplier/worth more points. They appear randomly and disappear after a few seconds. The reward types should be stored under one class, and instantiated as such using factory methods.

Barriers/Tiles

- Rock - Standard wall. Blocks movement into cells containing it.
- Space - Defines space where moving enemies and player characters can move
- Entrance/Exit - Entrance is where the main character spawns. Exit is where the main character moves to in order to win the game. Only opens upon collecting all gold ingots.

UI

- Score display should live in the corner of the screen and updates on contact with rewards/punishments. Elapsed time should be located near the score display.

Board

- 2D grid, on generation should have Rock objects acting as the border. 2 cells should be an entrance and exit node respectively. The character should spawn on the entrance node.

Main Character, Enemies, and Rewards should extend an abstract superclass named Entities. Barriers and other tiles should extend an abstract superclass named Tiles.