

possible additions/difficulties:

- Maximum number of units in the barracks and mines to add more complexity to the game.
- Should have added a display in the middle of the screen for pausing, saving or loading.
- the units of the player cannot all reach the same position, instead they get dispatched according to whoever was trained first, and start fighting in that order, which causes some unfairness to the game, bcz if player 2 trained archers first, they will be dispatched first and give an advantage for the archers of player 2 To win.
- Encountered are difficulty in the calculations: for example the rate which to play the animation and the number of frames in the animation . (in object.py)
- we only put one command per turn cz we found some difficulty trying to move it 3 per turn and would get an error.
- Some difficulty trying to change to speed of the units, putting high speeds for example kept freezing the game and it would stop working.

Stuff we did right:

- Correct design: tower barracks + mine
- Each player starts the game with 1 Unit
- game is turn-based
- Time is measured in turns
- Distance is measured in steps.
- Each element has a health measured in health points.
- New units can be added if the player can afford their cost.
- Command is correct.

Some definitions:

- Lists allow you to group together multiple values and reference them with a common name, they can hold different value types. they are mutable.
- Tuples allow us to create immutable group of objects, created using brackets, they are ordered.
- Dictionaries allow us to create collections of key: value/pairs. The key can be any immutable value like a string, number or tuple. And a value can be anything you want.
- Sets work like tuples but they are not ordered and they are mutable. Put between curly brackets.
- A function lets us create a set of instructions that we can run when needed. (to create meaningful programs.). We call parameters the values accepted by the function inside the function definition. Arguments are the values we pass to the function when we call it.
- Objects: Everything in python is an object. They have attributes and methods that be accessed using the dot syntax.
- Loops: we have 2 Kinds:
 - while loops: they repeat their block until the condition is evaluated as false. Infinite loop.
 - for loops: to execute a block for a pre-determined amount of time, without the need of a separate variable and conditioned to check its value.

- Classes: Defining new objects in python using classes: we declare new classes and from classes we instantiate objects. An object is an instance of a class. A class is the Type of an object.

- `__init__()` is a constructor used to initialize one or more properties when we need a new object from that Class.

One important feature of classes is inheritance: New classes can inherit methods from old clones.

- Recursion: a function in Python can call itself.

- A sprite: 2D representation of something on the screen

- framerate: number of update of the screen for every second.