

# INFO 1113 REPORT

---

Student id: 500425334

---

## Explanation of object-oriented design decisions

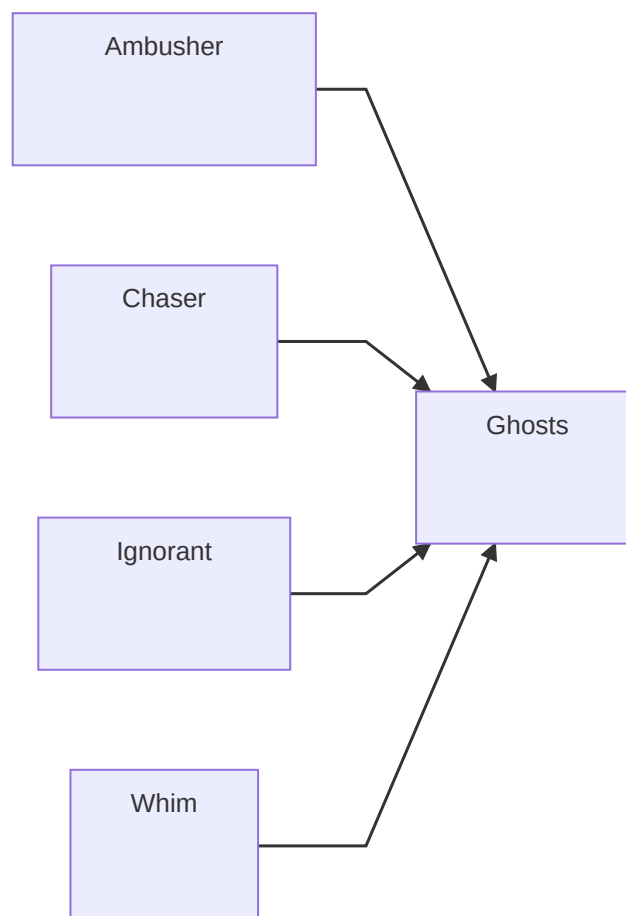
---

### App.java

App.java extends from PApplet.java, which is the graphic library. This class overrides four methods from PApplet.java: `setting()`, `setup()`, `draw()` and `KeyPressed(KeyEvent e)`.

- In the `setting` method, the basic attributes of the game window will be set.
- In the `setup()` method, the first frame of the game will be executed, map, player, ghosts' information will be loaded.
- The `draw()` method will be called at each frame; it will update the information of the game and redraw the game screen.
- `KeyPressed()` will continuously listen to the keyboard and respond.

### Ghosts



`Ghosts.java` is the super class of all ghosts; it is an abstract class with an abstract method `findTarget()`.

All ghosts have the same logic when they are moving; they only make a decision when they encounter a corner, never turn back except they have nowhere to go to.

Hence, methods such as `countingDistance()`, `walk()`, `intersection()` and etc. will be inherited.

For this four kinds of ghost, they have different logic to find their target, so `findTarget()` have to be implemented in `Ambusher.java`, `Chaser.java`, `Ignorant.java` and `Whim.java`.

## Exception

In `ConfigReader().java`, it might throw a exception when `config.json` is no exist.

## Explanation of how the extension has been implemented

---

Extension: Collectable soda-can that frightens ghosts and turns them invisible for a period of time.

A new data field called `sodaLength` is added in `config.json`, it determine the length of effect that ghost turn invisible.

When player eat a soda can, ghost will turn invisible, during this period of time, if player encounter a ghost and player is not in super fruit mode, player will lost a live, otherwise, ghost will be eliminated.

