Aquafun

Create an aquarium game.

Each fish will have it’s effect on the aquarium:

* Goldfish - will create X amount of dirt each turn
* Cleaning fish - will clean X amount of dirt each turn
* Feed - food will be evenly distributed between the fish

As the game progresses the aquarium will become dirty depending on the cleaning fish/gold fish ratio (the glass will get less clear) If the glass becomes totally opaque, the game is over.

**Swim**

Every fish will constantly swim, turning each time they arrive at the end of the aquarium

**Turns**

Every turn the game state will be recalculated:

* fish size
* Aquarium cleanness

Food - each fish will need X amount of food each turn to survive. If fed too little it will shrink and eventually die. I fed too much it will grow.

**Buttons**: add goldfish, add cleaning fish, feed

**Errors**

The goldfish to cleaning fish ratio must be between 1 to 3 and 1 to 7 cleaning fish for each goldfish. Buying more gold fish will produce the TooManyGoldfishError error. Buying more cleaning fish will produce the NotEnoughGoldfishError

Errors will be displayed as a modal with an “OK” button

**Technicalities**

* Think about separating ui code (renderning the fish) from the game state
* Use the appropriate design patternes to represent fish, aquarium

**Agile process**

Build one small thing, test it and add on to it with each development cycle. Think about your milestones in advance, for instance: