

Episode 3 Codes for printing

game.clj

```
(ns undead.game)

(def faces [ :h1 :h1 :h2 :h2 :h3 :h3 :h4 :h4 :h5 :h5
             :fg :fg :zo :zo :zo :gy])

(defn ->tile [face]
  {:face face})

(defn create-game []
  {:tiles (shuffle (map ->tile faces))
   :sand (repeat 30 :remaining)})

(defn- revealed-tiles [game]
  (->> game :tiles (filter :revealed?)))

(defn- can-reveal? [game]
  (> 2 (count (revealed-tiles game))))

(defn- match-revealed [tiles]
  (mapv (fn [tile]
          (if (:revealed? tile)
              (-> tile (assoc :matched? true) (dissoc :revealed?))
              tile)) tiles))

(defn- check-for-match [game]
  (let [revealed (revealed-tiles game)]
    (if (and (= 2 (count revealed))
              (= 1 (count (set (map :face revealed)))))
        (update-in game [:tiles] match-revealed)
        game)))

(defn reveal-tile [game index]
  (if (can-reveal? game)
      (-> game
          (assoc-in [:tiles index :revealed?] true)
          (check-for-match))
      game))
```

game_test.clj

```
(ns undead.game-test
  (:require [undead.game :refer :all]
            [expectations :refer :all]))
```

```

(defn- find-face-index [game face]
  (first (keep-indexed (fn [index tile]
                        (when (and (= face (:face tile))
                                   (not (:revealed? tile))))
                        index))
         (:tiles game))))

(defn reveal-one [face game]
  (reveal-tile game (find-face-index game face)))

;; create-game

(expect { :h1 2 :h2 2 :h3 2 :h4 2 :h5 2
          :fg 2 :zo 3 :gy 1 }
        (->> (create-game) :tiles (map :face) frequencies))

(expect #(< 10 %) (count (set (repeatedly 100 create-game))))

(expect { :remaining 30 } (frequencies (:sand (create-game))))

;; reveal-tile

(expect 1 (->> (reveal-tile (create-game) 0)
              :tiles (filter :revealed?) count))

(expect #{ { :face :h1 :revealed? true }
           { :face :h2 :revealed? true } }
        (->> (create-game)
              (reveal-one :h1)
              (reveal-one :h2)
              (reveal-one :h3)
              :tiles
              (filter :revealed?)
              (set))))

(expect [ { :face :h1 :matched? true }
          { :face :h1 :matched? true } ]
        (->> (create-game)
              (reveal-one :h1)
              (reveal-one :h1)
              :tiles
              (filter :matched?))))

(expect #{ { :face :h3 :revealed? true } }
        (->> (create-game)
              (reveal-one :h1)
              (reveal-one :h1)
              (reveal-one :h3)
              :tiles
              (filter :revealed?)
              (set))))

```