

Berry on Time

A tracker for Pokemon berry growth!

A lil background....





Problem

No easy way to keep track of growth and watering times of berries to get maximum berry yield without hand calculations and setting of timers, which are time-consuming.

Solution

Timers that automatically account for berries' unique growth and soil dry-out rate based on what berry you choose to plant.

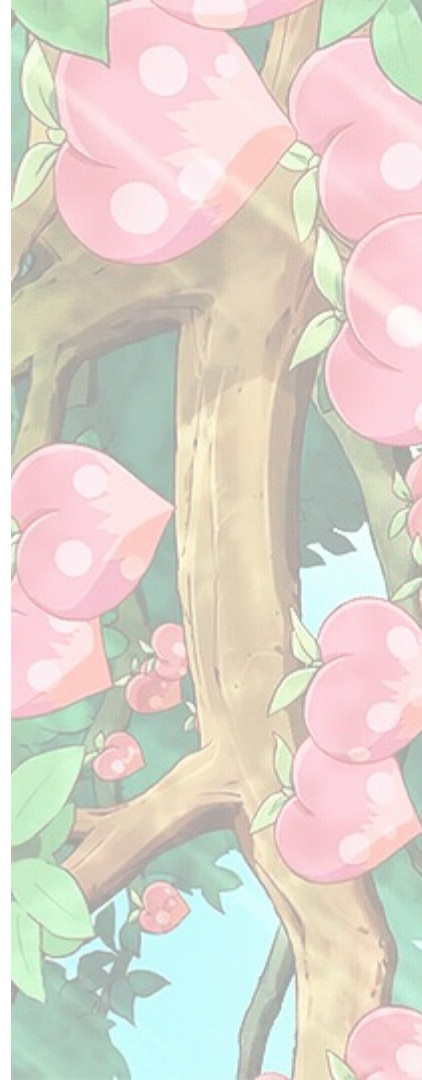
Algorithm Mumble Jumble

Soil Quality: $100 - (60 / \text{rate of soil dry-out} * \text{time elapsed})$

Needs watering if quality dips below 51. If quality hits 0 when it's time to deduct from quality, berry harvest amount is decremented by $\frac{1}{5}$. So must keep within $100 - (60 / \text{rate of soil dry-out} * \text{time elapsed}) > 50$.

Resulting Equation: $\text{time elapsed} < (50 / \text{rate of soil dry-out})$

*** time units is in hours



Keeping track of growing berries...

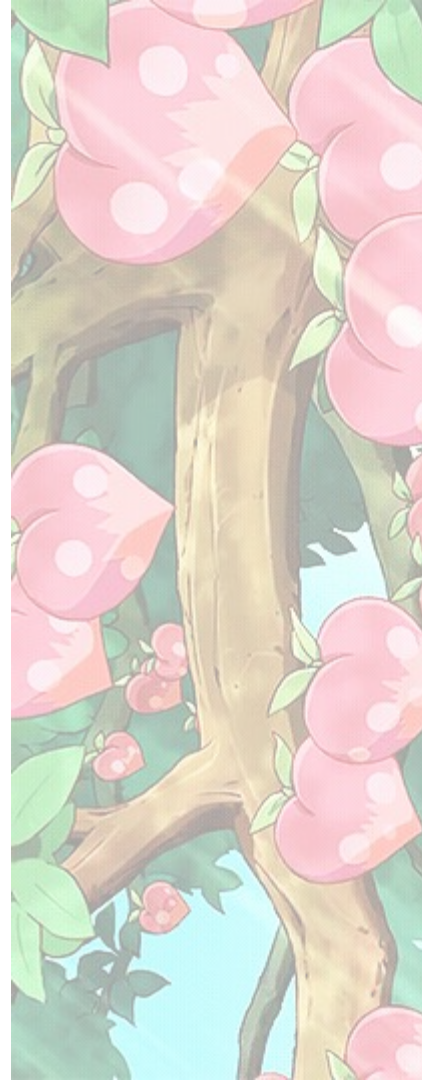


Firebase Storage:

<https://console.firebase.google.com/u/0/project/cs47-final/database/firestore/data~2Fberrydex~2F42OI3tCRIQeQlopGMZf>

Challenges + Things Learned

- Populating the data in the database with berry information (did only 6 so far...)
- Database id shenanigans
 - Bless `console.log()` for saving me from hours of pain
- How to work with Firebase database
- A workaround for database searches ;D
- Utilizing APIs
- Creating Timers





LIVE DEMO!





Future Plans

- other Pokemon games (currently only for Diamond/Pearl)
- notifications when soil is dry (quality < 50)
- search by flavors
- find a way to mine the berry data information from websites instead of manually putting them in
- factor in mulch's effects (can speed up growth rate, soil drying rate, etc.)
- have a counter on berry yield based watering frequency (decrement $\frac{1}{5}$ for every missed watering)
- need to figure out how to reset timers...
- make interface look more... Pokemon-y