

ProjectOI: Makers Makin' It, Act I

TNPG: Magical Magnolias

Roster: Nia Lam, Amanda Tan, Naomi Lai, Kishi Wijaya

TARGET SHIP DATE: 2025-01-15

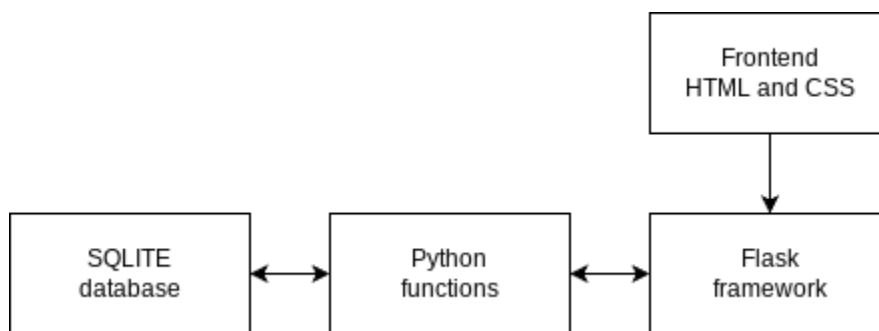
Magnolia Gardens - DESIGN DOCUMENT v.0

Description

Magnolia Gardens is a stimulator type game with a primary focus on growing and maintaining a garden of flowers. As days pass with user discretion, flowers must be watered and receive certain amounts of sunlight depending on the flower species. Minigames will be where resources come from (tic-tac

Program Components

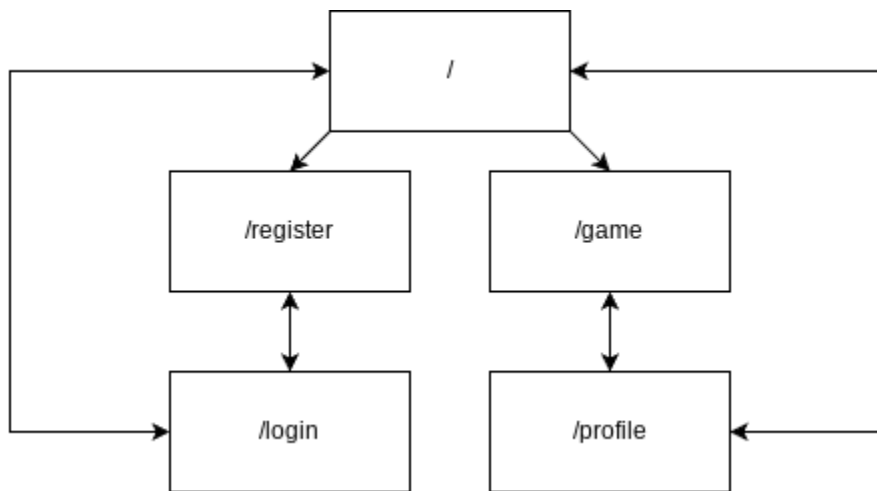
- Login
 - Permits access to all features of the site
 - Connects to SQLITE
- Register
 - Creates new connection to SQLITE
 - Unique usernames and password confirmation
- Game
 - Uses Javascript for interactivity



Site Map

- Home Page:
 - Access Control: Accessible only to logged-in users. Non-logged-in users are redirected to the login/registration page.
 - Welcome Banner: Displays "Welcome, [username]!" and current garden grade.
 - Navigation Links: Links to the garden, logout button.

- Current Stats: Displays current in-game currency, garden grade, and available plants.
- Registration/Login Page:
 - Form Fields: Username and password fields.
 - Redirection: Successful login redirects to the home page.
 - Error Handling: Displays error messages for incorrect login attempts or invalid registrations.
- Garden Page:
 - Interactive Garden: A grid-based representation of the garden where users can plant, water, and harvest magical plants using JavaScript for interactivity.
 - Plant Details: Hovering over a plant displays its growth stage and health.
- Profile
 - Shows all current statistics and data for current user



Database Organization (with sample data)

- Database Structure:
 - Users Table: Stores usernames, passwords
 - Garden Table: Stores data about plants in each user's garden (e.g. type, growth stage, health).
 - Resources Table: Stores data about resources (water, coins)

I. users

id	username	password
1	user1	TEXT NOT NULL

2. flower_base

id	name	water_req	sun_req
I	tulip	2	2
atk	hp	cost	growth
2	2	I	I

3. resources

id	user	water	coins
0	userI	5	5

4. personal_flowers

id	name	water_req	sun_req
I	tulip	2	2
atk	hp	cost	curr_water
2	2	I	I
curr_sun	curr_hp	user	
I	I	userI	

APIs

We do not currently plan to use any APIs

Front-end Framework

We will use Bootstrap as our front-end framework because of its aesthetics and simplicity in achieving desired appearance. It is intuitive to use.

We plan to utilize Bootstrap's responsive grids to easily format articles, recipes, and information. We are also interested in customizing Bootstrap's default colors and fonts to suit our design.

Task Breakdown

1. Nia Lam: Project Manager + Middleware
2. Amanda Tan: Frontend + Backend
3. Naomi Lai: Frontend + Backend
4. Kishi Wijaya: Database Lead