

# Flower Shop

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## 🏆 High Concept

Flower Shop is a single player, first person perspective florist game that aims to give the player a basic understanding of how to grow and maintain “flowering plants” by providing certain tasks as a step-by-step guide to the player, meanwhile maintaining the entertainment element.





## Game Summary

Player starts at a designated workshop area where he/she will prepare the flowering plants. Right from the beginning they are guided with basic step-by-step instructions on what actions to perform, as well as when and how to do them. Player first learns to interact with an instruction menu that houses several in-game functions and descriptions on how to reach these functions. Available actions are as follows: Toggle Menu, Toggle Interactables, Toggle Crosshair, Pick Up or Drop Water Can, Hold Flower Pot, and Plant Seeds. Player first chooses a seed out of three available flower seeds (red, white, and purple flowers) by interacting with the designated area. Once selected the seed can be planted in a designated pot on top of a table. All interaction areas are placed in a triangular formation so that the player can reach out to all of them with ease. When “plant seeds” action is taken, dirt is put inside the pot and the seed is planted, the player must water it to begin the growth cycle. Once the growth cycle begins plants need to be watered yet again on each growth phase. There are a total of 4 phases for each type of plant : 3 phases consisting of early life stages and a final phase in which the plant is fully grown. Fully grown plants then need to be delivered to the designated area of delivery just outside the flower shop. Each delivered flowered grants some amount of money in return, based on the type of the flower. Also, the watering can needs to be refilled every once in a while from the faucet, otherwise the player won’t be able to water new plants. Refilling the can deducts some money from the player’s balance. For each plant, current growth and water levels are shown on top of the pots as well as the time remaining until the next phase occurs. With careful sound design and a quest-like system, the player is made aware of their interactions such as toggling functions, planting seeds, and making advancements. Player is also provided with a toggleable “highlight” option that guides them to the gameplay area or shows them which items are interactables. Also, a toggleable crosshair is provided to make on-screen interactions easier.

Finally, the player needs to come up with a strategy, in terms of which plants to grow, in order to gather enough money to pay the monthly rent of the flower shop. Failing to do so will result in the flower shop's closing.



## ✨ Features

- **Interactions Menu:** Player can view a set of available actions that will help them throughout the gameplay.
  - ◆ **Toggle Interactables (H):** Shows/hides interactable objects by highlighting them visually with a bright white outline.
  - ◆ **Toggle Crosshair (C):** Shows/hides camera crosshair in the middle of the screen.
  - ◆ **Pick Up Water Can (F):** Picks up water can if the player is looking at it.
  - ◆ **Drop Water Can (G):** Drops water can on the table, to its designated place.
  - ◆ **Plant Seeds (Q):** Plants seeds on the pot the player is looking at.
  - ◆ **Hold Flower Pot (Hold E):** Holds a fully grown flower pot until released.

- **Player Movement:** Player can move around using W,A,S,D keyboard keys to move forward, left, backward, right sequentially.
- **Seed Selection Area:** Player can select one out of three available flower seeds from this in-game menu using MMB to scroll through options.
- **Refill Area:** Player refills the watering can by standing in front of the faucet while holding it.
- **Delivery Area:** Player delivers fully grown flowers to the delivery area to generate income.
- **Pots:** Pots are used to contain planted seeds and flowers as well as dirt. They are the main means of interaction between the player and plants. They provide visual information about plants' current growth levels and water levels.
- **Timers:** Provides visual feedback on when a plant will reach a certain growth phase as well as remaining time until the next day.
- **Watering Can:** A holdable water source that is used to water the plants. The dynamic water level is displayed on the watering can.
- **SFX:** Occasional sound effects provide a greater level of immersion as well as awareness for certain actions.
- **UI:** Informs the player of several tasks, contains reminders, and an always visible player balance in dollars(\$).

## Player Motivation

Player accomplishes several tasks while learning how to grow and maintain healthy flowering plants. The need for following specific steps and maintenance promotes a sense of responsibility and replayability, supported by the game's core loop which promotes an effort-reward mechanism by introducing in-game economics. Also, the fact that the flower shop will be shut down if a certain amount of balance isn't reached and the monthly rent isn't paid creates the urge that the player should make an effort.

## ! Design Highlights

Any intractable and decorative object has a realistic look, size, and feeling. Plenty of decorative assets and ambient sound effects are used to make the game more immersive. Interactions give enough visual and auditory feedback that it is clear what is going on. Simple UI elements guide the player.



## Intended Audience & Technology Used

This game addresses anyone who likes to learn about growing plants, completing tasks, and dealing with in-game economics. It provides simple and realistic gameplay that suits persons of any age group. In the making of this game, “Unreal Engine 5” software was used. Most of the assets were gathered from Unreal Engine Marketplace and Unreal Engine Sample projects, as well as from Quixel Bridge and CGTrader website. All coding was done in terms of “blueprints”.



## Gameplay



### Core Mechanic and Core Loop

- When the game begins, the player is instructed on what steps to follow. For each step either a certain task is given to the player or the player is given additional information about the game mechanics.
- Player chooses a seed; plants, waters and maintains it so that gradually it evolves into a healthy plant with flowers. While doing so the player makes use of a watering can and several actions that let the player interact with designated objects.
- For each pot, the player chooses one out of red, white, and purple flower seeds and plants it. Each plant has its own watering requirements and consumption rate as well as its own growth phase durations and generated income on delivery. The red, white, and purple flowers each generate \$10, \$20, and \$30 consecutively. Each time a plant is watered, the level of water in the can decreases which is shown to the player with a UI element. The watering can needs to be filled by interacting with the faucet. Each time the watering can is filled, some money is deducted from the total balance for filling  $\frac{1}{5}$  of the can.

- Once a plant fully grows, it must be delivered to the designated area outside the shop in order to generate income as per the previously stated amounts.
- This cycle continues until the player gathers enough money (\$1000) to pay the monthly rent for the flower shop, which is the end game goal. If the player doesn't succeed in making enough money to pay the rent, the flower shop gets shut down.
- Other than paying for the rent, the player can continue playing this whole loop as many times as desired.

## Game Progression

- **Tasks:** Keep track of player progression and learning roadmap.
- **Growth Phases :**
  - ◆ **Phase 1:** Some dirt and seeds are placed in the pot.
  - ◆ **Phase 2:** After watering once, plants grow to their first form, consisting of small leaves.
  - ◆ **Phase 3:** After watering twice, plants grow to their second form, consisting of bigger leaves.
  - ◆ **Phase 4:** After watering a third time, plants grow to their final form, consisting of fully grown flowers.
- **Delivery:** When fully grown, flowering plants should be sent for delivery.
- **Gaining Funds:** Each plant delivered generates income, based on the difficulty (the time it takes and the water spent) of growing a particular plant.
- **Spending Funds:** In-game currency is used to make payments for the monthly rent of the shop and the water bill.

## Goals

Main goal is to teach the player basic steps of growing and maintaining plants with flowers. Endgame goal is to have accumulated enough funds to pay the monthly rent.

# Design Basics

## World / Environment

A real-life flower shop feel is given as much as possible. The shop is decorated with several conceptual assets. HDR sky elements are used to replicate real-life skies. 2D Image planes are used to make the surroundings look like a city.

## Aesthetics & Mood

A vivid color palette is applied to create a natural and calm feeling. All assets are hand-picked and are of high mesh and material quality. Occasional directional lights and reflection captures are used to contribute to the visuals of the shop. Post-processing tweaks are performed in order to improve visual quality. Local and global sound cues are used to provide both ambient and interactive sound effects.

## Camera, Character & Controls

Flower Shop is playable in a first-person camera perspective with first-person player controls on PC platforms. A keyboard and a mouse are necessary input devices for playing the game. Controls are further explained in detail in previous sections of this document.

## Edutainment Aspects

As a learning outcome, the player is familiarized with important aspects of growing and maintaining healthy, lively flowering plants. The player learns when and how to treat a plant with the help of growth phases and visual instructions. Thus, should a real-life situation involving the application of these skills occur, the player can immediately recall the basic steps they followed during implementations provided by the game, and may perform these steps at a more complex level to attain their needs. Also, the player gets to experience the monthly struggle of a shopkeeper, and learns in some sense, how to make profits by selling a product.

Player's ability to perform the necessary steps is measured via a step-by-step progression system. On a bigger scope, the player is considered to have successfully learned the intended skills if he/she manages to accomplish the end-game goal, which is to pay the monthly rent of the shop. Player is provided with both visual and auditory feedback for each action he/she takes. Most of the area is reachable by the player and can be explored at will.





