

# GARDENING APP

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**Created by Zali Rae 2025**

This is a terminal based application where you create and maintain a garden, with a selection of different plants! You can water, fertilize, plant seeds and ultimately even save your garden to a json file.

This app is a text based, simple and interactive game, where the user has a certain level of control over the garden - promoting imagination of what that space would look like. It was really enjoyable to imagine and construct the different functions, figuring out how they all worked and became interactive. I used a virtual environment to install necessary packages and libraries: *Colorama* (to colourise and diversify text) and *Questionary* (for nice looking command line interfaces, in this case using the arrow keys navigate up and down and select which action you would like to take).

## SET UP and HELP

This app runs on Python3! As well as uses a couple of libraries you will have to install to help everything run smoothly and to get the most out of the game.

Here is some documentation on installing Python3 if you haven't already got it:

[Installing Python](#)

As well as some documentation on used libraries, Colorama & Questionary:

[COLORAMA install & documentation](#)

[QUESTIONARY install & documentation](#)

And now, some instructions on setting up your Gardening App on your own device...

### Mac OS

Download the zip file, take note of the location it saves to, by default this is the downloads file.

Open a new terminal and navigate to the downloads folder:

```
-> cd downloads
```

Once in the downloads folder, navigate to the garden app folder:

```
-> cd 16307_Bartholomew_Zali_DEV1001_Assessment_02
```

You will need python installed to run this app, check you have it:

```
-> python --version
```

If it is not installed, you will need to install it to continue.

Next you will install the necessary libraries:

```
pip3 install colorama  
pip3 install questionnaire
```

Once those have successfully installed, you can run the app:

*for python versions below 3.13 run:*

```
-> python gardening_app.py
```

*for python versions 3.13 and above run:*

```
-> python3 gardening_app.py
```

Continue to follow prompts with yes/no or make selections using the arrow keys to play and complete your game!

*To exit game:*

Navigate using arrow keys to 'exit' and select with return!

## Windows PC

Download the zip file, take note of the location it saves to, by default this is the downloads file.

Open a new terminal and navigate to the downloads folder:

```
-> cd downloads
```

Once in the downloads folder, navigate to the garden app folder:

```
-> cd 16307_Bartholomew_Zali_DEV1001_Assessment_02
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You will need python installed to run this app, check you have it:

```
-> python --version
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If it is not installed, you will need to install it to continue.

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Continue to follow prompts with yes/no or make selections using the arrow keys to play and complete your game!

*To exit game:*

Navigate using arrow keys to 'exit' and select with return.

## TESTING

Upon further learning and continued tweaking and updating of the app, I have added and run multiple tests. Such as:

```
def test_is_valid_seed():
    assert is_valid_seed("orange tree")
    assert is_valid_seed("pumpkin")
    assert not is_valid_seed("apple")
    assert not is_valid_seed("")
    print("test_is_valid_seed passed.")

def test_garden_initial_plants():
    g = Garden()
    assert "tomatoes" in g.plants
    assert "tulips" in g.plants
    print("test_garden_initial_plants passed.")

def test_garden_plant_addition():
    g = Garden()
    g.plants.append("pumpkin")
    assert "pumpkin" in g.plants
    print("test_garden_plant_addition passed.")
```

## Hurdles and growth

In initial creating of this app I wasn't in the practice of making continual commits and being really on top of utilising version control, this is something I want to get better app and also continue to only understand better. I have learnt the importance of descriptive and meaningful commits, over the course of the projects I'm working on. Testing is something I am learning and want to continue to grow in my knowledge and understanding of.

## FUTURE IDEAS

Something I would like to create after having built this, is an app with more depth and even more interactivity. I loved working on this gardening theme, and would be interested in utilising my expanding knowledge from my course at Coder Academy. Using languages such as SQL and utilising databases to create a real experience for the user to participate in.

## PACKAGES

- Colorama to give the game some colour and different functions & methods distinction from eachother. Documentation on Colorama:  
[Colorama on pypi](#)
- Questionary from the Python library, to use the arrow keys to navigate up and down actions and ultimately select which you would like. Documentation on Questionary:  
[Questionary on pypi](#)

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