

GARDENING APP

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 questionary
```

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
```

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.
```

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 at 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.

PACKAGES

- Colorama to give the game some colour and different functions & methods distinction from each other. Documentation on Colorama: [Colorama on pypi](<https://pypi.org/project/colorama/>)
- 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](<https://pypi.org/project/questionary/>)

****COLORAMA LICENSE****

Copyright (c) 2010 Jonathan Hartley
All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- Neither the name of the copyright holders, nor those of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

****QUESTIONARY LICENSE****

Copyright 2020 Tom Bocklisch and contributors

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell

copies
of the Software, and to permit persons to whom the Software is furnished
to do
so, subject to the following conditions:

The above copyright notice and this permission notice shall be included
in all
copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS
OR
IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY,
FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL
THE
AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER
LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING
FROM,
OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS
IN THE
SOFTWARE. # garden-app-assessment