

Shake N Bake
Software Deployment Plan
Date: 31/10/2023

1. System Requirements

Linux

- openSUSE 15.4
- SUSE Linux Enterprise Server
- Red Hat Enterprise Linux 8.4
- Red Hat Enterprise Linux 7.6
- Ubuntu 20.04
- Ubuntu 18.04
- Generic Linux

macOS

- macOS 10.13
- macOS 10.14
- macOS 10.15
- macOS 11
- macOS 12

windows

- Windows 11 22H2
- Windows 10 21H2
- 8.1Windows
- Windows 7

2. Deployment Strategy Summary

The final form of this project will likely be a standalone application, which warrants a need for package managers. These will be needed to transform our source files into bundles that are readable by our target systems, including pyinstaller, py2app, and dpkg for Windows, MacOS, and Linux based systems respectively.

For the first two project managers, they are both following a self-contained model, meaning that the executable file created from these two will already include the needed dependencies and a python interpreter; this makes deployment somewhat simpler than their Linux counterpart since it removes the issues related to missing dependencies on the target system.

Dpkg presents a few differences as it requires the creation of a package control file which is needed as a storage site for all of the application's dependencies.

3. Installation Package Contents

3.1 Required source or compiled files

3.1.1 add_to_ingredient_list.py

3.1.2 db_manager.py
3.1.3 history_note.py
3.1.4 main_menu.py
3.1.5 recipe_creation.py
3.1.6 recipe_display.py

3.2 Required third-party components

- **pyqt5**
- **python3**

3.4 Required graphical assets, configuration and other non-program files

- **none**

3.5 Documentation files to be provided

- <https://docs.google.com/document/d/1gnldnLJHzGK-xacqj7XahV8rbKf8exJmlc7DQmZjTUo/edit?usp=sharing>

3.6 Development files and components that must be excluded

- **“development_files” folder**

4. Additional Code Required for Deployment

- **potentially a shell script file which downloads any of the dependencies which are not currently a part of our targeted system.**

5. Deployment Tasks

Windows

1. check that all the dependencies of the application is compatible with the target system
2. convert source into an .exe file using pyinstaller
3. check that all of the needed dependencies are inserted along with setting the program's icon
4. a download bundle should then be created with the help of inno setup script wizard .

Mac

1. check that all the dependencies of the application is compatible with the target system
2. create the Info.plist which specifies the application's name, version, and other related information.
3. convert source into an .app file using py2app

6. Deployment Test Plan

Test environments will be created using virtual machines for all 3 operating systems, which include windows, macOS, and linux[ubuntu]. Each of these environments will be blank slates, meaning that there will not be pre-existing dependencies for the program to work off of.

List of planned test:

1. installation test - the most important thing when deploying an application is make sure that it runs, and it will not do that if the application does not get past the installation phase.
2. run test - making sure that the PyQt related frameworks and widgets still function in the newly installed app
3. data test - this test involves an evaluation of the database, making sure that it has survived the transfer.
4. exit test - finally a test has to be done which evaluates the programs response to a critical error, that it closes itself in a safe and informative manner.