[The JIGler - Study Planner]

Software Deployment Plan

[Latest update: 2024-10-30 *(keep updated when you make changes)****]***

1. System Requirements

[List the environments/operating systems and versions that your software will support. For this project, this must include Windows 10 and above, MacOS/X last two versions, Linux SuSE Leap 15 and above, Rocky 8, and Ubuntu14 and above.]

Our software has been tested to successfully deploy on the following operating systems. Although do to the versatile nature of executable files it might work on versions other than tested but we do not guarantee that it will work in other versions other than what's listed below.

General hardware requirements:

The software is developed to be compatible with PCs and Laptops.

at least 36.6MB of free disk space for download and additional space for database (depending on how much data the users add)

Compatible with AMD Ryzen 5 3600 CPU

At least 300MB of RAM

Windows Distribution:

Compatible with either Windows 11 home or Window 10 home

Linux Distribution:

Compatible with Opensuse leap 15.4

[Also note any requirements with regard to hardware. Any software dependencies must be handled by your deployment, except that you can require the installation of your chosen package manager.]

2. Deployment Strategy Summary

The deployment process involves converting the Python-based source code into standalone executables using PyInstaller (version 6.11.0) compatible with Python 3.10. The general strategy involves the following steps:

Source Code Management:

Retrieve the latest source code from the GitHub repository, specifically from the source_code directory.

Environment Setup:

Ensure Python 3.10 and Pip are installed on the deployment machine.

Install required dependencies using pip install -r requirements.txt.

Executable Creation:

Utilize PyInstaller with appropriate hooks and configurations to bundle the application into a single executable file.

[Describe the general approach you will take to your deployment, what tools you will use and what form the final distribution kit(s) will take.]

3. Installation Package Contents

Windows (11 and 10):

Installation files:

main_interface.exe

Generated files after running:

roadmap.db

task.db

Linux (Opensuse leap 15.4):

Installation files:

main_interface_final_fixed_leap154

Generated files after running:

roadmap.db

task.db

[Enumerate the files or components in each of the following categories]

3.1 Required source or compiled files

Once the software is in use, it will generate 2 database files the main software requires to function properly: roadmap.db and task.db

3.2 Required third-party components

Although we used the following third party libraries to develop

packaging==24.1

pandas==2.2.3

pefile==2023.2.7

pprintpp==0.4.0

pyinstaller==6.11.0

pyinstaller-hooks-contrib==2024.9

python-dateutil==2.9.0.post0

SQLITE3

There's no need requirements for third party components for the deployment version of our software since we packaged everything into an executable

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

None, you can run the executable file in a folder for increased organization if you prefer but it is not required.

3.5 Documentation files to be provided

readme.md will be the instructions for the software

3.6 Development files and components that must be excluded

development log files, other outdated versions of the software

4. Additional Code Required for Deployment

Although sqlite3 is used, we're using executables to minimize chance of error and failure when deploying.

[List any additional scripts or programs that you will need to create in order to do the deployment. These might include shell or batch scripts, SQL scripts, executables... really depends on your strategy.]

5. Deployment Tasks

[Make a detailed, ordered list of all the tasks your team will need to do in order to package and deploy your project. This can be used as a checklist when you are actually working on the deployment.]

readme.md

1. We had to pull the required source code from github
2. Only files in the source_code folder is required.
3. If pip and python 3.10 isn’t installed,we have to install that
4. We had to install the required dependencies/libraries to run the software. The requirements.txt file can help automate this process (this includes pyinstaller which is part of the required libraries to package the source code files into an executable but not required to run the source code itself)

   “pip install -r requirements.txt”

5. We had to open up the commandline and type in the command for Pyinstaller to package it into an executable
6.

6. Deployment Test Plan

We tested on our windows computer and virtual machine for linux by opening up the executable and click around to find bugs through trial and errorObjective: Ensure that the installation process completes successfully on all supported operating systems without errors.

Windows Installation (Windows 11)

1. See if the environment is suitable or not: since it's developed in this os, there wasn't much to worry about, just pip freeze and see if it matches requirements.txt
2. Observe and debug any errors until it is fixed
3. Open the executable file
4. Test main success scenarios and edge cases
5. Observe and debug any errors

Linux Installation (openSUSE leap 15.4)

1. see if the environment is suitable or not: we had to reinstall python since openSUSE leap 15.4 came with python 3.6 instead of python 3.10 which doesn't work with pyinstaller properly for some reason. We had to install zip file parser to unzip files downloaded from github (it doesn't come with git and we didn't have time to set up git in VM)
2. Observe and debug any errors until it is fixed
3. Open the executable file
4. Test main success scenarios and edge cases: The errors on Opensuse and on windows are different for some reason even the same version of software can behave differently.
5. Observe and debug any errors

[How will you determine that your deployment is working as required, on different platforms? This should be a list of test cases.]