Assignment 2: Wishing Well

Adam Rankin (adamr14@vt.edu)

Introduction:

The purpose of this project is chiefly to gain experience using message queues and noSQL databases. This project additionally addresses place-specific computing. A wishing well allows you to deposit a message at a certain location. Likewise, this project allows for the production of a message from a certain location, as well as the consumption of those same messages through the use of RabbitMQ message queues. A message can be posted from a specific place and sent to the message queue for later consumption.

Requirements:

There are a few packages used in this project which do not come with Python by default. They are as follows:

Name	Description	Command
pika	Connection to RabbitMQ	Pip install pika
pymongo	Connection to noSQL Mongo Database	Pip install pymongo

This project additionally works under a few assumptions (outlined in spec) that are as follows:

1. A RabbitMQ instance is running
2. The exchanges and Queues are preconfigured as in the project spec
3. Mongo is installed

Implementation and Usage:

This project is implemented in two files: repository.py and helpers.py. helpers.py contains functions and data structures used in the project and serves to make repository.py cleaner and more readable.

The command to run the project is as follows:
python3 repository.py

This will prompt for a command in the following form:
action:exchange+queue message

Upon successful entrance of a command, the program will either produce the message to the specified queue or consume the messages in the specified queue. Relevant Checkpoints will be printed as specified in the project rubric. Because the start_consuming function enters an infinite loop, a keyboard interrupt (ctrl+c) can be used to exit the loop and restart the original prompt.

Conclusions:

In conclusion this project proved useful in the learning objectives it had. This was just a small introduction to message queues, and I hope to use the knowledge I gained in some other application that I can think of.