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CSCE 361 Dr. Cohen

## **Testing Document**



A test document that describes how you (system) tested your final program and what criteria you used to determine that it works. If you have created test cases you should include these as well. The test document should be tied back to your requirements document (i.e. you should have test cases for each completed requirement).

## 1.1.1. General Requirements

- 1. The program shall allow the user to specify files and directories within root directories to be ignored by the system.
- 2. The program shall allow the user to specify a remote file space for files to be synced to.
- 3. The program shall automatically sync changed files under root directories to the remote filesystem.
- 4. The program shall provide the user the ability to choose how files are synced to the remote filesystem:
  - a. The program shall encrypt files and sync to the remote, or
  - b. The program shall <u>not</u> encrypt files but still sync to the remote.
- 5. The program shall provide a record, to the user, of each file watched by the program, which contains:
  - a. The file's path relative to its root directory.
  - b. Time of latest modification of file.
  - c. Time of latest sync of the file.
  - d. If encryption is enabled for the file.
- 6. The program shall update local files if the corresponding files on the remote filesystem has a more recent modification time.

## 1.1.2. Crypto Requirements

- 1. The crypto module shall provide a method to generate a new 32-bit symmetric key in the fernet format.
- 2. The crypto module shall automatically produce a 32-bit symmetric, fernet format, key for the user if none is provided.
- 3. The crypto module shall provide a method to encrypt target files.

- a. This method will be automatically executed by the program.
- b. This method can be manually executed by the user.
- 4. The crypto module shall provide a method to decrypt target files.
  - a. This method will be automatically executed by the program.
  - b. This method can be manually executed by the user.

## 1.1.3. GUI Requirements

- 1. The program shall present the user with a GUI once the user runs the program executable.
- 2. The GUI shall provide means for the user to exit.
- 3. The GUI shall provide means for root directories to be added the the program's watch list.
- 4. The GUI shall provide means for files or directories, under watched root directories, to be ignored and not automatically synced.
- 5. The GUI shall provide means for auto-encryption to be enabled for files or directories under watched root directories.
- 6. The GUI shall provide means for auto-encryption to be disabled for files or directories under watched root directories.
- 7. The GUI shall display to the user relevant information of a selected file contained within a watched root directory. See 2.2.1 part 6 for specified information.
- 8. The GUI shall provide means for the user to specify a target remote file system for the program to sync.