

Unzipper

Description: Create a JavaFX FXML application that uses the provided UIStage and UIScene that unzips a zip archive in a thread separate from the UI thread and communicates status and progress to the UI thread.

Purpose: This challenge provides experience in:

- working with the UIStage and UIScene classes to develop a JavaFX FXML application
- working with a third party library (jar file) – zip4j
- using threads to do work to keep the UI responsive
- communicating between a work thread and the UI thread

Requirements:

Name: Unzipper

As with other challenges precede the name with your pawprint where the first letter is capitalized. For example, if the pawprint is abcxyz9 the name of the project is to be Abcxyz9Unzipper.

IDE: NetBeans 8

Language: Java 8

UI: JavaFX using FXML and using UIStage and UIScene

Library: zip4j (<http://www.lingala.net/zip4j/download.php>)

The user interface is to contain the following:

- a way to select a zip file that is to be unzipped using a file open dialog
- a way to display the path to the selected zip file
- a way to select a destination directory where the extracted files are to be placed using a directory chooser dialog
- a way to display the path to the destination directory
- a way to start the file extraction
- a way to interrupt/stop the file extraction
- a progress bar that shows the progress in extracting the files
- a text area that displays the paths of the extracted files
- an indication of the status of the extraction such as: no started, extracting, interrupted, finished

The UIStage and UIScene classes (provided) are to be placed in their own package called **ui**.

The extraction of the files (unzipping) is to happen in a thread separate from the UI thread. The unzip thread is to communicate status and progress to the UI. The extraction process is to be interruptable.

The user selects a zip file to extract and then selects a destination directory in which the files are to be extracted. The user then indicates that the extraction is to start. As the extraction

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proceeds the status and progress are communicated to the UI and the UI displays this information. If the user indicates to stop the extraction the extraction is to be interrupted.

The information that is to be displayed in the UI during the extraction is to include:

- status: not started, extracting, interrupted, finished
- progress: show on progress bar
- display path for each extracted file after it is extracted

You can do more than is indicated if you wish. How you design the UI and its layout is up to you.

Submission:

Submit a zip file of your project. Make sure that all needed files are contained in the zip of the file project. This includes the zip4j library and any assets, such as images, that your project uses.