Program 3

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# Overview

This project creates a backup of a given directory in an S3 bucket. The project demonstrates how to use Amazon S3. The user inputs a directory

# Tools Used

* Java 8
* Maven
* AWS S3
* AWS Java SDK

# Design

There are three classes in this project: S3Connector, DirectoryTraverser, and the main class.

## S3Connector

This class provides abstraction from the AWS S3 SDK. It simplifies the use of certain functionalities provided by the AWS SDK. Functionalities are more limited to the scope of the project. This means that the S3Connector will allow the user to only create buckets and objects to AWS S3.

## DirectoryTraverser

This class provides the main functionality of the program. A user will specify a directory from their local computer, then it will create a backup of that directory in AWS S3. Every file and subdirectory in the parent directory will be backed up onto S3.

# Usage

To run the program, AWS CLI credentials should be configured correctly on the local system. Meaning that the AWS Access Key and AWS Secret Key are place in the ~/.aws/credentials file on Linux and macOS or C:\Users\{USERNAME}\.aws\credentials file on Windows.

The project takes in two command line arguments. The first argument will be the path to the directory to backup and the second is an optional argument to name the S3 bucket. To the execute the backup, from the root directory of the project, run:

java -cp target/program3-1.0.0-SNAPSHOT.jar program3.Program3 [directory to backup] [S3 bucket name (optional)]

# Build

To build the project, run:

./mvnw package shade:shade

This will build the project into a JAR file in the target folder as program3-1.0.0-SNAPSHOT.jar