Program 3

Professor Dimpsey

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The aim of the project is to use cloud storage programmable APIs. The application takes full path of the folder whose backup you want to create and stores it on AWS s3 storage.

General structure of the program is:

1. Checks if 1 argument was passed in.
2. Gets user input for which bucket to store information in or create a new bucket for backup itself
3. Recurs down the folder to its subdirectories and creates a backup of the structure on aws s3 storage.
4. The order of subdirectories is maintained.
5. The code also checks if the file is already in the bucket then it does not store it again.

Steps to configure AWS with your credentials:

1. Create a new user on AWS portal (assumption that you know how to create user and retrieve credentials)
2. Find your ".aws" method (should be in Users> [username] folder)
3. Open the file named "Credentials"
4. Add your keys to the file in the following format:

```
[default]
aws_access_key_id = {your_access_key}
aws_secret_access_key {your_secret_access}
```

5. Save the file and close it.

Things to keep in mind:

I have used python with dependency on boto3 library. Again, assumption that boto3 is downloaded. You also need to have python installed onto your machine.

Every time you take a backup, the backup gets created inside of a folder named after the bucket, inside of the bucket. This is mainly to keep the bucket more organized.

Build and execute the program using the following command:

If you want to backup a certain directory then type this:

python Program3.py {full path of the folder to be backed up}

For example,

python Program3.py C:\Users\rithik05\Desktop\VisaUS\Submitted

If you want the current directory to get backed up, then type this:

python Program3.py

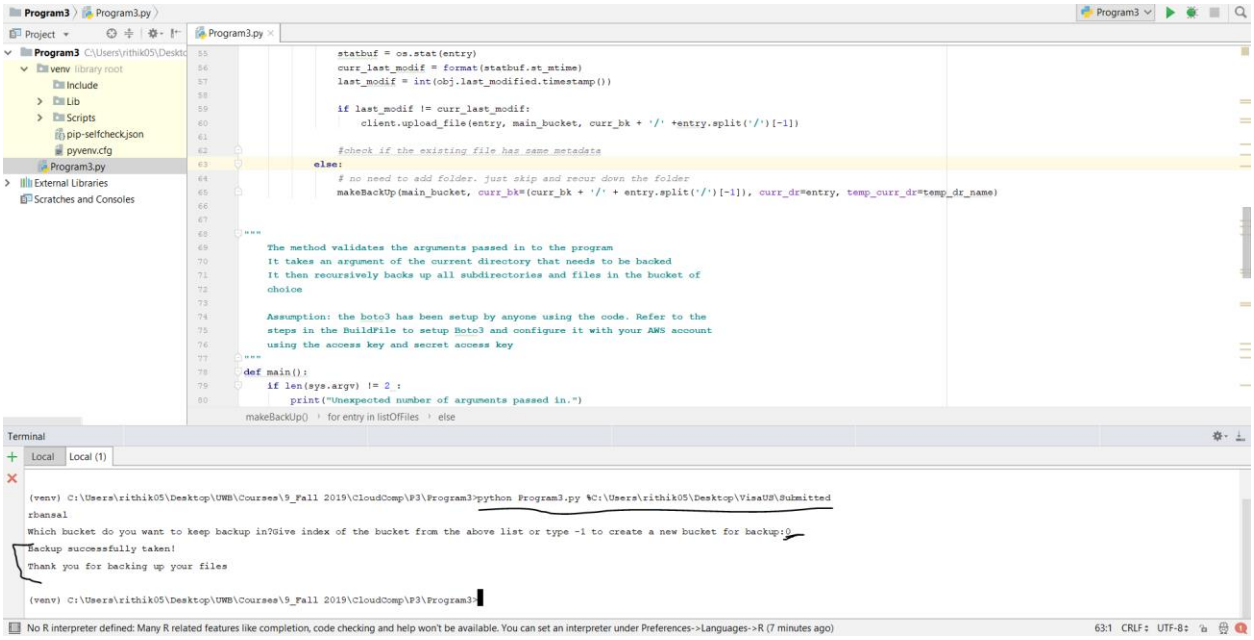
For example,

python Program3.py

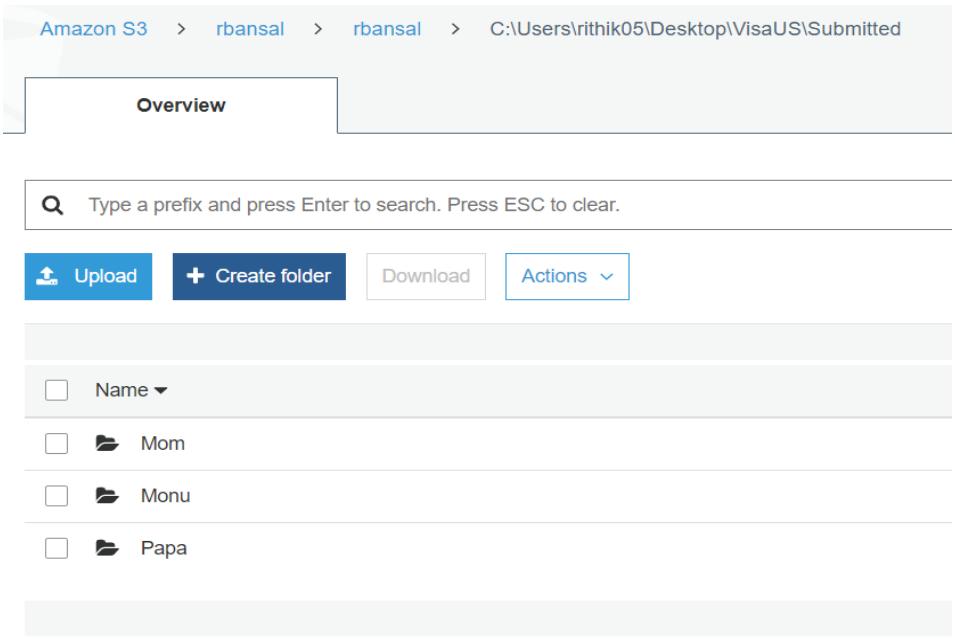
Testing strategy

I tested the program by creating a smal folder structure with random document types in multiple folders. After backing up files once, I double checked to see if the file already exists before taking another back up of it and overwriting it. I verified my output by logging into my AWS storage bucket online

Screenshots from sample run:



AWS storage screenshot after sample run


Amazon S3 > rbansal > rbansal > C:\Users\rithik05\Desktop\VisaUS\Submitted
Overview
Type a prefix and press Enter to search. Press ESC to clear.
Upload
Create folder
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Actions
Name
Mom
Monu
Papa