

SCREENSHOTS OF PROGRAM 3

Invalid option chosen – other than backup or restore chosen

```
pg3 — poojan26@csslslab1h: /tmp/prog3/pg3 — ssh poojan26@@csslslab1.uwb.edu — 93x...

poojan26@csslslab1h:/tmp/prog3/pg3$ ls
BackupToCloud.py  Main.py  RestoreToLocal.pyc
BackupToCloud.pyc RestoreToLocal.py tmp
poojan26@csslslab1h:/tmp/prog3/pg3$ rm -r tmp/
poojan26@csslslab1h:/tmp/prog3/pg3$ ls
BackupToCloud.py  Main.py  RestoreToLocal.pyc
BackupToCloud.pyc RestoreToLocal.py
poojan26@csslslab1h:/tmp/prog3/pg3$ cd ../
poojan26@csslslab1h:/tmp/prog3$ ls
__MACOSX  pg3  pg3.zip
poojan26@csslslab1h:/tmp/prog3$ rm -r pg3
poojan26@csslslab1h:/tmp/prog3$ ls
__MACOSX  pg3.zip
poojan26@csslslab1h:/tmp/prog3$ unzip pg3.zip
Archive:  pg3.zip
  creating: pg3/
  inflating: pg3/.DS_Store
replace __MACOSX/pg3/._DS_Store? [y]es, [n]o, [A]ll, [N]one, [r]ename: y
  inflating: __MACOSX/pg3/._DS_Store
  inflating: pg3/RestoreToLocal.py
  inflating: pg3/BackupToCloud.py
  inflating: pg3/Main.py
poojan26@csslslab1h:/tmp/prog3$ ls
__MACOSX  pg3  pg3.zip
poojan26@csslslab1h:/tmp/prog3$ cd pg3
poojan26@csslslab1h:/tmp/prog3/pg3$ ls
BackupToCloud.py Main.py RestoreToLocal.py
poojan26@csslslab1h:/tmp/prog3/pg3$ python Main.py restor poojacss436/new myfiles
Enter valid option - Backup or Restore
poojan26@csslslab1h:/tmp/prog3/pg3$
```

For restore case – entering nonexistent bucket name

```
pg3 — poojan26@csslab1h: /tmp/prog3/pg3 — ssh poojan26@@csslab1.uwb.edu — 93x...

BackupToCloud.pyc RestoreToLocal.py tmp
[poojan26@csslab1h:/tmp/prog3/pg3$ rm -r tmp/
[poojan26@csslab1h:/tmp/prog3/pg3$ ls
BackupToCloud.py Main.py RestoreToLocal.pyc
BackupToCloud.pyc RestoreToLocal.py
[poojan26@csslab1h:/tmp/prog3/pg3$ cd ../
[poojan26@csslab1h:/tmp/prog3$ ls
__MACOSX pg3 pg3.zip
[poojan26@csslab1h:/tmp/prog3$ rm -r pg3
[poojan26@csslab1h:/tmp/prog3$ ls
__MACOSX pg3.zip
[poojan26@csslab1h:/tmp/prog3$ unzip pg3.zip
Archive: pg3.zip
  creating: pg3/
  inflating: pg3/.DS_Store
replace __MACOSX/pg3/.DS_Store? [y]es, [n]o, [A]ll, [N]one, [r]ename: y
  inflating: __MACOSX/pg3/.DS_Store
  inflating: pg3/RestoreToLocal.py
  inflating: pg3/BackupToCloud.py
  inflating: pg3/Main.py
[poojan26@csslab1h:/tmp/prog3$ ls
__MACOSX pg3 pg3.zip
[poojan26@csslab1h:/tmp/prog3$ cd pg3
[poojan26@csslab1h:/tmp/prog3/pg3$ ls
BackupToCloud.py Main.py RestoreToLocal.py
[poojan26@csslab1h:/tmp/prog3/pg3$ python Main.py restor poojacss436/new myfiles
Enter valid option – Backup or Restore
[poojan26@csslab1h:/tmp/prog3/pg3$ python Main.py restore poojacss43/new myfiles
No such bucket exists, enter valid bucket name
[poojan26@csslab1h:/tmp/prog3/pg3$
```

For restore – successful case

Amazon S3 console view for bucket `poojacss436`, path `new/ Main/`.

Objects (5)

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

Actions: Copy S3 URI Copy URL Download Open Delete Create folder Upload

Find objects by prefix

| <input type="checkbox"/> | Name | Type | Last modified | Size | Storage class |
|--------------------------|----------------------------|----------|---|---------|---------------|
| <input type="checkbox"/> | .DS_Store | DS_Store | February 16, 2022, 16:39:59 (UTC-08:00) | 6.0 KB | Standard |
| <input type="checkbox"/> | file6.txt | txt | February 16, 2022, 16:44:57 (UTC-08:00) | 24.0 B | Standard |
| <input type="checkbox"/> | file7.pptx | pptx | February 16, 2022, 16:39:59 (UTC-08:00) | 31.8 KB | Standard |
| <input type="checkbox"/> | test/ | Folder | - | - | - |
| <input type="checkbox"/> | test2/ | Folder | - | - | - |

```
poojan26@csslab1h: /tmp/prog3/pg3$ ls
BackupToCloud.py  Main.py  RestoreToLocal.pyc
BackupToCloud.pyc RestoreToLocal.py tmp
poojan26@csslab1h: /tmp/prog3/pg3$ rm -r tmp/
poojan26@csslab1h: /tmp/prog3/pg3$ ls
BackupToCloud.py  Main.py  RestoreToLocal.pyc
BackupToCloud.pyc RestoreToLocal.py
poojan26@csslab1h: /tmp/prog3/pg3$ cd ../
poojan26@csslab1h: /tmp/prog3$ ls
__MACOSX  pg3  pg3.zip
poojan26@csslab1h: /tmp/prog3$ rm -r pg3
poojan26@csslab1h: /tmp/prog3$ ls
__MACOSX  pg3.zip
poojan26@csslab1h: /tmp/prog3$ unzip pg3.zip
Archive:  pg3.zip
  creating: pg3/
  inflating: pg3/.DS_Store
replace __MACOSX/pg3/.DS_Store? [y]es, [n]o, [A]ll, [N]one, [r]ename: y
  inflating: __MACOSX/pg3/.DS_Store
  inflating: pg3/RestoreToLocal.py
  inflating: pg3/BackupToCloud.py
  inflating: pg3/Main.py
poojan26@csslab1h: /tmp/prog3$ ls
__MACOSX  pg3  pg3.zip
poojan26@csslab1h: /tmp/prog3$ cd pg3
poojan26@csslab1h: /tmp/prog3/pg3$ ls
BackupToCloud.py  Main.py  RestoreToLocal.py
poojan26@csslab1h: /tmp/prog3/pg3$ python Main.py restor poojacss436/new myfiles
Enter valid option - Backup or Restore
poojan26@csslab1h: /tmp/prog3/pg3$ python Main.py restore poojacss43/new myfiles
No such bucket exists. enter valid bucket name
poojan26@csslab1h: /tmp/prog3/pg3$ python Main.py restore poojacss436/new myfile
s
('Files Restored to Local: ', ['u'new/Main/.DS_Store', 'u'new/Main/file6.txt', 'u'
new/Main/file7.pptx', 'u'new/Main/test/file1.docx', 'u'new/Main/test/file2.txt',
'u'new/Main/test/file3.pptx', 'u'new/Main/test/file4.csv', 'u'new/Main/test/file5.
pdf', 'u'new/Main/test2/file8.csv', 'u'new/Main/test2/file9.pdf'])
poojan26@csslab1h: /tmp/prog3/pg3$
```

List of files restored in myfiles folder:

```
pg3 — poojan26@csslal1h: /tmp/prog3/pg3/myfiles/new/Main/test2 — ssh poojan26@@csslal1.uwb.edu — 123x45

__MACOSX pg3 pg3.zip
poojan26@csslal1h:/tmp/prog3$ rm -r pg3
poojan26@csslal1h:/tmp/prog3$ ls
__MACOSX pg3.zip
poojan26@csslal1h:/tmp/prog3$ unzip pg3.zip
Archive: pg3.zip
  creating: pg3/
  inflating: pg3/.DS_Store
replace __MACOSX/pg3/.DS_Store? [y]es, [n]o, [A]ll, [N]one, [r]ename: y
  inflating: __MACOSX/pg3/.DS_Store
  inflating: pg3/RestoreToLocal.py
  inflating: pg3/BackupToCloud.py
  inflating: pg3/Main.py
poojan26@csslal1h:/tmp/prog3$ ls
__MACOSX pg3 pg3.zip
poojan26@csslal1h:/tmp/prog3$ cd pg3
poojan26@csslal1h:/tmp/prog3/pg3$ ls
BackupToCloud.py Main.py RestoreToLocal.py
poojan26@csslal1h:/tmp/prog3/pg3$ python Main.py restor poojacss436/new myfiles
Enter valid option - Backup or Restore
poojan26@csslal1h:/tmp/prog3/pg3$ python Main.py restore poojacss43/new myfiles
No such bucket exists, enter valid bucket name
poojan26@csslal1h:/tmp/prog3/pg3$ python Main.py restore poojacss436/new myfiles
('Files Restored to Local: ', ['new/Main/.DS_Store', u'new/Main/file6.txt', u'new/Main/file7.pptx', u'new/Main/test/file1.docx', u'new/Main/test/file2.txt', u'new/Main/test/file3.pptx', u'new/Main/test/file4.csv', u'new/Main/test/file5.pdf', u'new/Main/test2/file8.csv', u'new/Main/test2/file9.pdf'])
poojan26@csslal1h:/tmp/prog3/pg3$ ls
BackupToCloud.py BackupToCloud.pyc Main.py myfiles RestoreToLocal.py RestoreToLocal.pyc
poojan26@csslal1h:/tmp/prog3/pg3$ cd myfiles/
poojan26@csslal1h:/tmp/prog3/pg3/myfiles$ ls
new
poojan26@csslal1h:/tmp/prog3/pg3/myfiles$ cd new
poojan26@csslal1h:/tmp/prog3/pg3/myfiles/new$ ls
Main
poojan26@csslal1h:/tmp/prog3/pg3/myfiles/new$ cd Main/
poojan26@csslal1h:/tmp/prog3/pg3/myfiles/new/Main$ ls
file6.txt file7.pptx test test2
poojan26@csslal1h:/tmp/prog3/pg3/myfiles/new/Main$ cd test
poojan26@csslal1h:/tmp/prog3/pg3/myfiles/new/Main/test$ ls
file1.docx file2.txt file3.pptx file4.csv file5.pdf
poojan26@csslal1h:/tmp/prog3/pg3/myfiles/new/Main/test$ cd ../
poojan26@csslal1h:/tmp/prog3/pg3/myfiles/new/Main$ cd test2
poojan26@csslal1h:/tmp/prog3/pg3/myfiles/new/Main/test2$ ls
file8.csv file9.pdf
poojan26@csslal1h:/tmp/prog3/pg3/myfiles/new/Main/test2$
```

Bucket name taken case:

```
poojan26@csslab1h: /tmp/prog3/pg3$ python Main.py backup poojacss436assignment/mybackup myfiles  
(creating bucket: ', 'poojacss436assignment')  
(Files backed up to Cloud: ', ['file9.pdf', 'file8.csv', 'file1.docx', 'file5.pdf', 'file7.pptx', '.DS_Store', 'file2.txt', 'file4.csv', 'file6.txt', 'file3.pptx'])  
poojan26@csslab1h: /tmp/prog3/pg3$ python Main.py backup pooja/mybackup myfiles  
(creating bucket: ', 'pooja')  
Bucket name taken, enter different name  
poojan26@csslab1h: /tmp/prog3/pg3$
```

Backup successful case: bucket creating

The screenshot displays the AWS S3 Management Console interface. The 'Buckets (2)' section is active, showing a list of buckets. The bucket 'poojacss436assignment' is highlighted with a green box, indicating successful creation. To the right, a terminal window shows the command execution and output.

Account snapshot
Storage lens provides visibility into storage usage and activity trends. [Learn more](#)
[View Storage Lens dashboard](#)

Buckets (2) [Info](#)
Buckets are containers for data stored in S3. [Learn more](#)

[Refresh](#) [Copy ARN](#) [Empty](#) [Delete](#) [Create bucket](#)

| | Name | AWS Region | Access | Creation date |
|-----------------------|---------------------------------------|-------------------------------|--------------------------|--|
| <input type="radio"/> | poojacss436 | US West (Oregon) us-west-2 | Objects can be public | February 14, 2022, 08:50:30 (UTC-08:00) |
| <input type="radio"/> | poojacss436assignment | US West (Oregon) us-west-2 | Objects can be public | February 16, 2022, 19:22:09 (UTC-08:00) |

```
poojan26@csslab1h: /tmp/prog3/pg3$ python Main.py backup poojacss436assignment/mybackup myfiles  
(creating bucket: ', 'poojacss436assignment')  
(Files backed up to Cloud: ', ['file9.pdf', 'file8.csv', 'file1.docx', 'file5.pdf', 'file7.pptx', '.DS_Store', 'file2.txt', 'file4.csv', 'file6.txt', 'file3.pptx'])  
poojan26@csslab1h: /tmp/prog3/pg3$
```

Backup successful case: all files backed up to cloud

poojacss436assignment - S3

s3.console.aws.amazon.com/s3/buckets/poojacss436assig...

Amazon S3 > poojacss436assignment > mybackup/ > myfiles/ > new/ > Main/

Main/ Copy S3 URI

Objects Properties

Objects (5)

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

Refresh Copy S3 URI Copy URL Download Open Delete

Actions Create folder Upload

| <input type="checkbox"/> | Name ▲ | Type ▼ | Last modified ▼ | Size ▼ | Storage class ▼ |
|--------------------------|----------------------------|----------|---|---------|-----------------|
| <input type="checkbox"/> | .DS_Store | DS_Store | February 16, 2022, 19:22:10 (UTC-08:00) | 6.0 KB | Standard |
| <input type="checkbox"/> | file6.txt | txt | February 16, 2022, 19:22:10 (UTC-08:00) | 24.0 B | Standard |
| <input type="checkbox"/> | file7.pptx | pptx | February 16, 2022, 19:22:10 (UTC-08:00) | 31.8 KB | Standard |
| <input type="checkbox"/> | test/ | Folder | - | - | - |
| <input type="checkbox"/> | test2/ | Folder | - | - | - |

Feedback English (US) Privacy Terms Cookie preferences

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```
poojan26@csslab1n:/tmp/prog3/pg3$ python Main.py backup poojacss436assignment
t/mybackup myfiles
('creating bucket: ', 'poojacss436assignment')
('Files backed up to Cloud: ', ['file9.pdf', 'file8.csv', 'file1.docx', 'fil
e5.pdf', 'file7.pptx', '.DS_Store', 'file2.txt', 'file4.csv', 'file6.txt', '
file3.pptx'])
poojan26@csslab1h:/tmp/prog3/pg3$
```

Backup successful case: added to same bucket but different directory

The screenshot displays the AWS S3 console interface for the bucket 'poojacss436assignment'. The 'Objects' tab is selected, showing a list of objects. Two folders are visible: 'mybackup/' and 'newbackup/'. The 'newbackup/' folder is highlighted with a green box, indicating a successful backup to a new directory within the same bucket.

Terminal output on the right shows the execution of a Python script 'Main.py' that performs a backup. The script successfully backs up files to the 'newbackup' directory, as indicated by the output: 'Files backed up to Cloud: ['file9.pdf', 'file8.csv', 'file1.docx', 'file5.pdf', 'file7.pptx', '.DS_Store', 'file2.txt', 'file4.csv', 'file6.txt', 'file3.pptx']'.

```
poojan26@csslab1h: /tmp/prog3/pg3$ python Main.py backup poojacss436assignment/mybackup myfiles
('creating bucket: ', 'poojacss436assignment')
('Files backed up to Cloud: ', ['file9.pdf', 'file8.csv', 'file1.docx', 'file5.pdf', 'file7.pptx',
'.DS_Store', 'file2.txt', 'file4.csv', 'file6.txt', 'file3.pptx'])
poojan26@csslab1h: /tmp/prog3/pg3$ python Main.py backup pooja/mybackup myfiles
('creating bucket: ', 'pooja')
Bucket name taken, enter different name
poojan26@csslab1h: /tmp/prog3/pg3$ python Main.py backup poojacss436assignment/newbackup myfiles
('Files backed up to Cloud: ', ['file9.pdf', 'file8.csv', 'file1.docx', 'file5.pdf', 'file7.pptx',
'.DS_Store', 'file2.txt', 'file4.csv', 'file6.txt', 'file3.pptx'])
poojan26@csslab1h: /tmp/prog3/pg3$
```

| | Name | Type | Last modified | Size | Storage class |
|--------------------------|------------|--------|---------------|------|---------------|
| <input type="checkbox"/> | mybackup/ | Folder | - | - | - |
| <input type="checkbox"/> | newbackup/ | Folder | - | - | - |

Backup successful case: added to same bucket but different directory, all files added

The screenshot displays the AWS S3 console interface for a bucket named 'poojacss436assignment'. The breadcrumb navigation shows 'Main/' with a dropdown menu containing 'poojacss436assignment', 'newbackup/', 'myfiles/', and 'new/'. The 'Objects (5)' section lists the following items:

| Name | Type | Last modified | Size | Storage class |
|------------|----------|---|---------|---------------|
| .DS_Store | DS_Store | February 16, 2022, 19:27:50 (UTC-08:00) | 6.0 KB | Standard |
| file6.txt | txt | February 16, 2022, 19:27:50 (UTC-08:00) | 24.0 B | Standard |
| file7.pptx | pptx | February 16, 2022, 19:27:49 (UTC-08:00) | 31.8 KB | Standard |
| test/ | Folder | - | - | - |
| test2/ | Folder | - | - | - |

On the right side, a terminal window shows the following commands and output:

```
poojan26@csslab1h:/tmp/prog3/pg3$ python Main.py backup poojacss436assignment/mybackup myfiles
('creating bucket: ', 'poojacss436assignment')
('Files backed up to Cloud: ', ['file9.pdf', 'file8.csv', 'file1.docx', 'file5.pdf', 'file7.pptx',
'.DS_Store', 'file2.txt', 'file4.csv', 'file6.txt', 'file3.pptx'])
poojan26@csslab1h:/tmp/prog3/pg3$ python Main.py backup pooja/mybackup myfiles
('creating bucket: ', 'pooja')
Bucket name taken, enter different name
poojan26@csslab1h:/tmp/prog3/pg3$ python Main.py backup poojacss436assignment/newbackup myfiles
('Files backed up to Cloud: ', ['file9.pdf', 'file8.csv', 'file1.docx', 'file5.pdf', 'file7.pptx',
'.DS_Store', 'file2.txt', 'file4.csv', 'file6.txt', 'file3.pptx'])
poojan26@csslab1h:/tmp/prog3/pg3$
```


Backup successful case: Only modified file backed up to cloud

```
poojan26@csslab1h:/tmp/prog3/pg3$ python Main.py backup poojacss436assignment/mybackup myfiles ]
('creating bucket: ', 'poojacss436assignment')
('Files backed up to Cloud: ', ['file9.pdf', 'file8.csv', 'file1.docx', 'file5.pdf', 'file7.pptx', '.DS_Stor
e', 'file2.txt', 'file4.csv', 'file6.txt', 'file3.pptx'])
poojan26@csslab1h:/tmp/prog3/pg3$ python Main.py backup pooja/mybackup myfiles ]
('creating bucket: ', 'pooja')
Bucket name taken, enter different name
poojan26@csslab1h:/tmp/prog3/pg3$ python Main.py backup poojacss436assignment/newbackup myfiles ]
('Files backed up to Cloud: ', ['file9.pdf', 'file8.csv', 'file1.docx', 'file5.pdf', 'file7.pptx', '.DS_Stor
e', 'file2.txt', 'file4.csv', 'file6.txt', 'file3.pptx'])
poojan26@csslab1h:/tmp/prog3/pg3$ ls ]
BackupToCloud.py BackupToCloud.pyc Main.py myfiles RestoreToLocal.py RestoreToLocal.pyc
poojan26@csslab1h:/tmp/prog3/pg3$ cd myfiles ]
poojan26@csslab1h:/tmp/prog3/pg3/myfiles$ ls ]
new
poojan26@csslab1h:/tmp/prog3/pg3/myfiles$ cd new/ ]
poojan26@csslab1h:/tmp/prog3/pg3/myfiles/new$ cd Main/ ]
poojan26@csslab1h:/tmp/prog3/pg3/myfiles/new/Main$ ls ]
file6.txt file7.pptx test test2
poojan26@csslab1h:/tmp/prog3/pg3/myfiles/new/Main$ nano file6.txt ]
poojan26@csslab1h:/tmp/prog3/pg3/myfiles/new/Main$ cd ../ ]
poojan26@csslab1h:/tmp/prog3/pg3/myfiles/new$ cd ../ ]
poojan26@csslab1h:/tmp/prog3/pg3/myfiles$ cd ../ ]
poojan26@csslab1h:/tmp/prog3/pg3$ ls ]
BackupToCloud.py BackupToCloud.pyc Main.py myfiles RestoreToLocal.py RestoreToLocal.pyc
poojan26@csslab1h:/tmp/prog3/pg3$ python Main.py backup poojacss436assignment/newbackup myfiles ]
('Files backed up to Cloud: ', ['file6.txt'])
poojan26@csslab1h:/tmp/prog3/pg3$ █
```