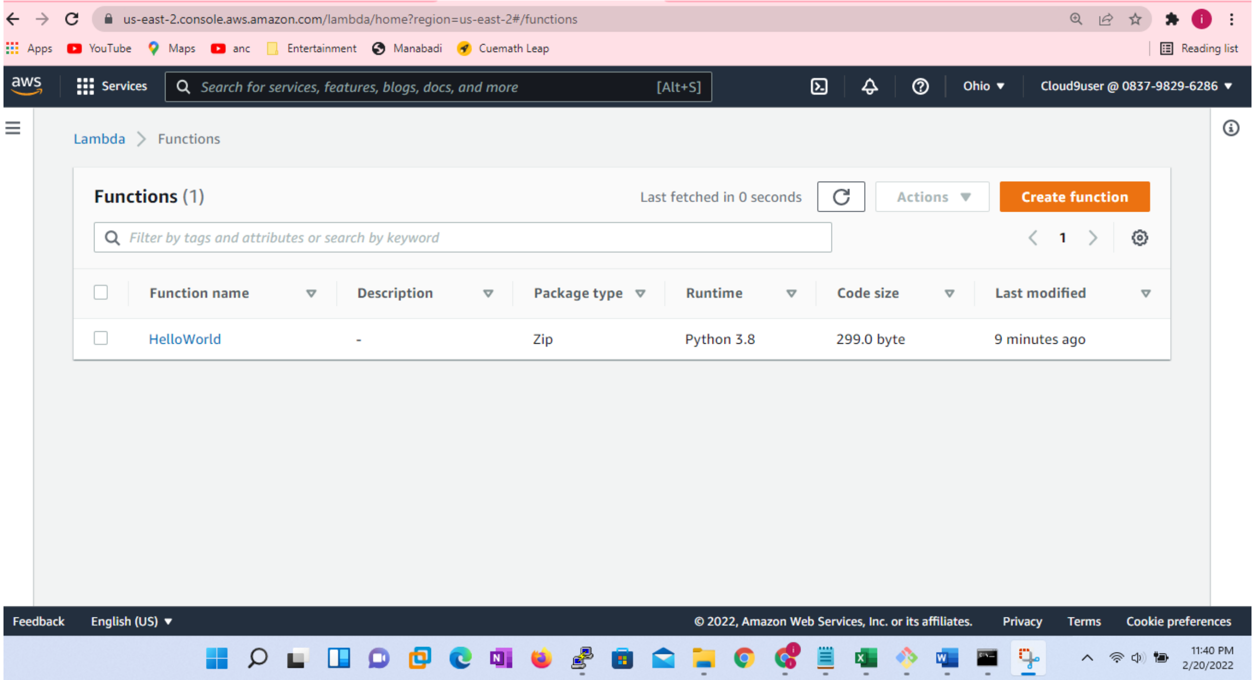
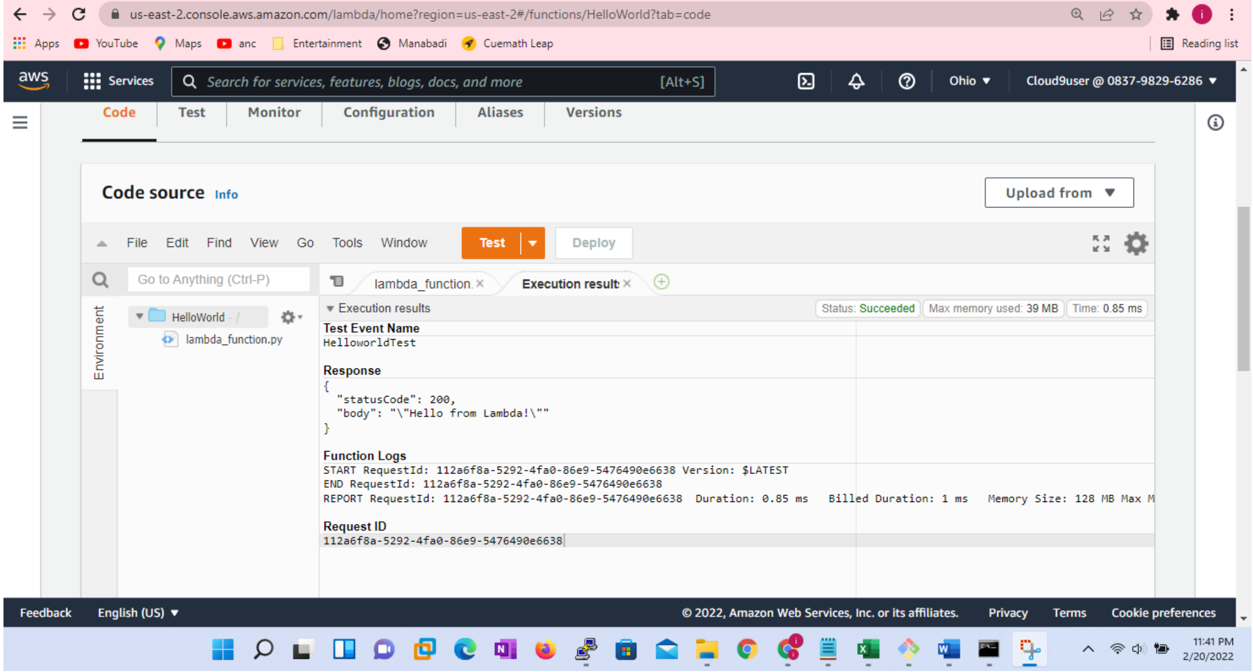
Hello World using AWS Lambda:

- Go to AWS Console and use the Lambda template.
- Deploy and Test the Hello world function and make sure it is successful.


us-east-2.console.aws.amazon.com/lambda/home?region=us-east-2#/functions
Apps YouTube Maps anc Entertainment Manabadi Cuemath Leap Reading list
aws Services Search for services, features, blogs, docs, and more [Alt+S]
Ohio ▼ Cloud9user @ 0837-9829-6286 ▼
Lambda > Functions
Functions (1)
Last fetched in 0 seconds
Actions ▼
Create function
Filter by tags and attributes or search by keyword
1
Feedback English (US) ▼ © 2022, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences
11:40 PM 2/20/2022

□	Function name	Description	Package type	Runtime	Code size	Last modified
□	HelloWorld	-	Zip	Python 3.8	299.0 byte	9 minutes ago

Figure 1Create the Hello world function


us-east-2.console.aws.amazon.com/lambda/home?region=us-east-2#/functions/HelloWorld?tab=code
Apps YouTube Maps anc Entertainment Manabadi Cuemath Leap Reading list
aws Services Search for services, features, blogs, docs, and more [Alt+S]
Ohio ▼ Cloud9user @ 0837-9829-6286 ▼
Code Test Monitor Configuration Aliases Versions
Code source Info
Upload from ▼
File Edit Find View Go Tools Window
Test
Deploy
Go to Anything (Ctrl-P)
lambda_function.
Execution result
Environment
HelloWorld - /
lambda_function.py
Feedback English (US) ▼ © 2022, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences
11:41 PM 2/20/2022

```
▼ Execution results          Status: Succeeded   Max memory used: 39 MB   Time: 0.85 ms
Test Event Name
HelloworldTest

Response
{
  "statusCode": 200,
  "body": "\"Hello from Lambda!\""
}

Function Logs
START RequestId: 112a6f8a-5292-4fa0-86e9-5476490e6638 Version: $LATEST
END RequestId: 112a6f8a-5292-4fa0-86e9-5476490e6638
REPORT RequestId: 112a6f8a-5292-4fa0-86e9-5476490e6638  Duration: 0.85 ms   Billed Duration: 1 ms   Memory Size: 128 MB Max M

Request ID
112a6f8a-5292-4fa0-86e9-5476490e6638
```

Figure 2Tested and deployed the Hello World function

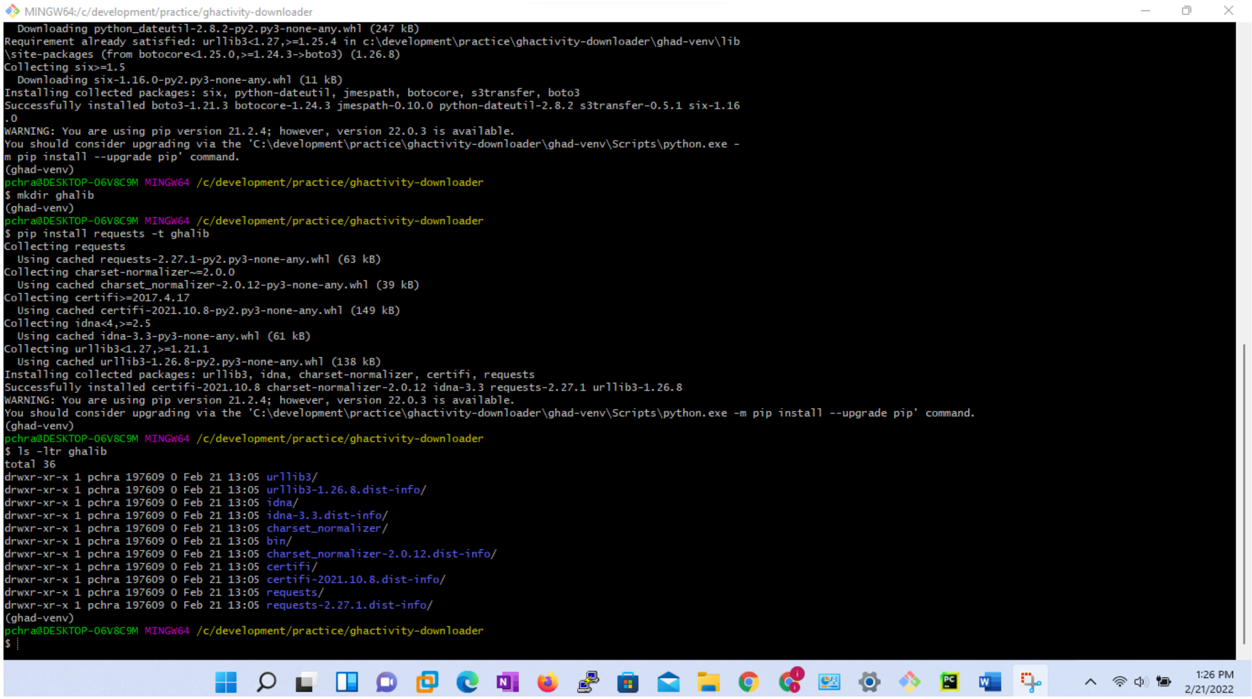
Setup Project for local development

Create folder for the project - **ghactivity-downloader**
Create virtual environment for this project - **ghad-venv**

python3 -m venv ghad-venv
source ghad-venv/bin/activate

We will install boto3 in the default location within the virtual environment. We need not include it as part of the bundle that will be deployed as a lambda function.
pip install boto3
pip install requests

We will install requests as part of **lambdalib** folder. It will be included as part of the bundle that will be deployed as a lambda function.
mkdir Ghalib
pip install requests -t Ghalib



```
  Downloading python_dateutil-2.8.2-py2.py3-none-any.whl (247 kB)
Requirement already satisfied: urllib3<1.27,>=1.25.4 in c:\development\practice\ghactivity-downloader\ghad-venv\lib
\site-packages (from botocore<1.25.0,>=1.24.3->boto3) (1.26.8)
Collecting six>=1.5
  Downloading six-1.16.0-py2.py3-none-any.whl (11 kB)
Installing collected packages: six, python-dateutil, jmespath, botocore, s3transfer, boto3
Successfully installed boto3-1.21.3 botocore-1.24.3 jmespath-0.10.0 python-dateutil-2.8.2 s3transfer-0.5.1 six-1.16
.0
WARNING: You are using pip version 21.2.4; however, version 22.0.3 is available.
You should consider upgrading via the 'C:\development\practice\ghactivity-downloader\ghad-venv\Scripts\python.exe -
m pip install --upgrade pip' command.
(ghad-venv)
pchra@DESKTOP-06V8C9M MINGW64 /c/development/practice/ghactivity-downloader
$ mkdir ghalib
(ghad-venv)
pchra@DESKTOP-06V8C9M MINGW64 /c/development/practice/ghactivity-downloader
$ pip install requests -t ghalib
Collecting requests
  Using cached requests-2.27.1-py2.py3-none-any.whl (63 kB)
Collecting charset-normalizer~=2.0.0
  Using cached charset_normalizer-2.0.12-py3-none-any.whl (39 kB)
Collecting certifi>=2017.4.17
  Using cached certifi-2021.10.8-py2.py3-none-any.whl (149 kB)
Collecting idna<4,>=2.5
  Using cached idna-3.3-py3-none-any.whl (61 kB)
Collecting urllib3<1.27,>=1.21.1
  Using cached urllib3-1.26.8-py2.py3-none-any.whl (138 kB)
Installing collected packages: urllib3, idna, charset-normalizer, certifi, requests
Successfully installed certifi-2021.10.8 charset-normalizer-2.0.12 idna-3.3 requests-2.27.1 urllib3-1.26.8
WARNING: You are using pip version 21.2.4; however, version 22.0.3 is available.
You should consider upgrading via the 'C:\development\practice\ghactivity-downloader\ghad-venv\Scripts\python.exe -m pip install --upgrade pip' command.
(ghad-venv)
pchra@DESKTOP-06V8C9M MINGW64 /c/development/practice/ghactivity-downloader
$ ls -ltr ghalib
total 36
drwxr-xr-x 1 pchra 197609 0 Feb 21 13:05 urllib3/
drwxr-xr-x 1 pchra 197609 0 Feb 21 13:05 urllib3-1.26.8.dist-info/
drwxr-xr-x 1 pchra 197609 0 Feb 21 13:05 idna/
drwxr-xr-x 1 pchra 197609 0 Feb 21 13:05 idna-3.3.dist-info/
drwxr-xr-x 1 pchra 197609 0 Feb 21 13:05 charset_normalizer/
drwxr-xr-x 1 pchra 197609 0 Feb 21 13:05 bin/
drwxr-xr-x 1 pchra 197609 0 Feb 21 13:05 charset_normalizer-2.0.12.dist-info/
drwxr-xr-x 1 pchra 197609 0 Feb 21 13:05 certifi/
drwxr-xr-x 1 pchra 197609 0 Feb 21 13:05 certifi-2021.10.8.dist-info/
drwxr-xr-x 1 pchra 197609 0 Feb 21 13:05 requests/
drwxr-xr-x 1 pchra 197609 0 Feb 21 13:05 requests-2.27.1.dist-info/
(ghad-venv)
pchra@DESKTOP-06V8C9M MINGW64 /c/development/practice/ghactivity-downloader
$
```

Figure 3Environment is created

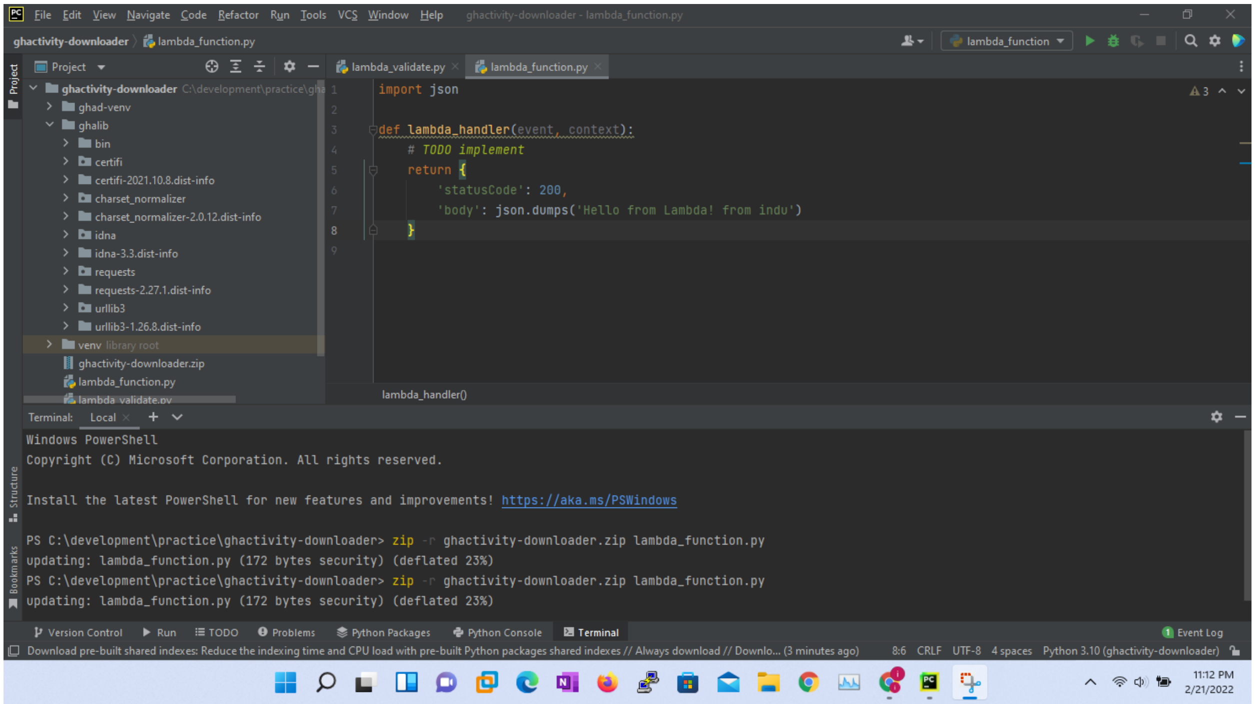
Deploy Project to AWS Lambda console:

we can deploy the locally developed Lambda Function to AWS Lambda Web Console.

- You need to build the zip file with the source code.

  ```
  zip -r ghactivity-downloader.zip lambda_function.py
  ```

- Use AWS Lambda Web Console to upload the Zip file.



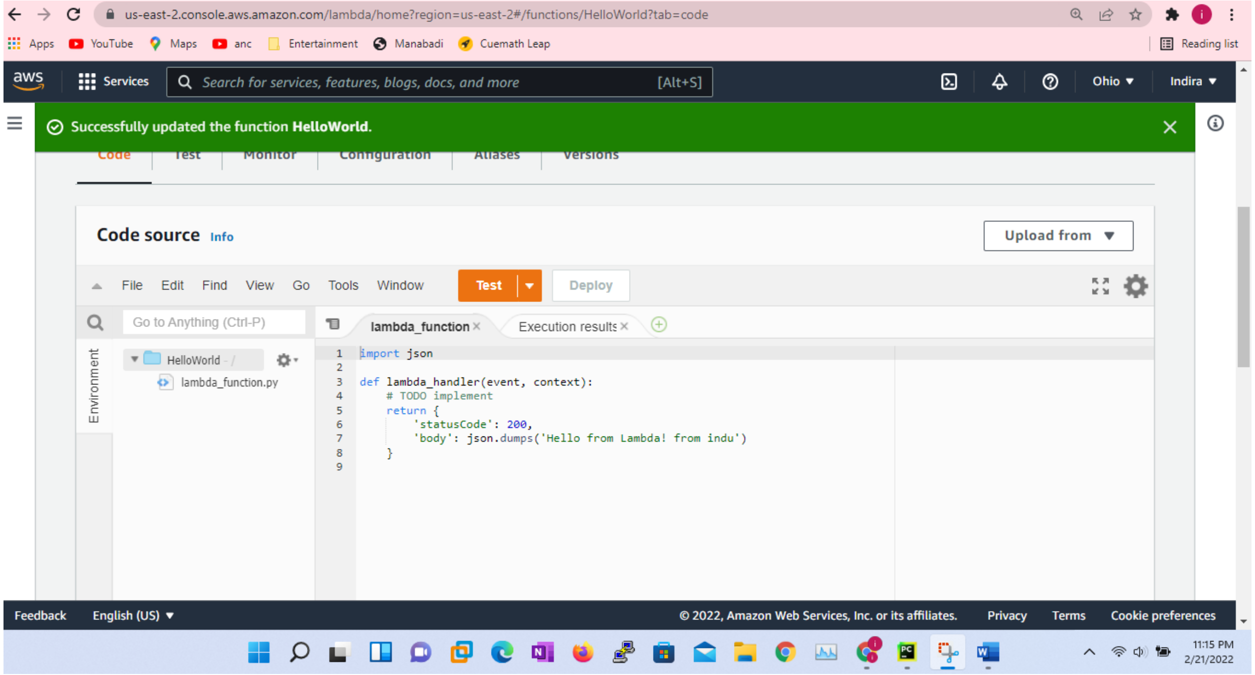
```python
import json

def lambda_handler(event, context):
    # TODO implement
    return {
        'statusCode': 200,
        'body': json.dumps('Hello from Lambda! from indu')
    }
```

```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\development\practice\ghactivity-downloader> zip -r ghactivity-downloader.zip lambda_function.py
updating: lambda_function.py (172 bytes security) (deflated 23%)
PS C:\development\practice\ghactivity-downloader> zip -r ghactivity-downloader.zip lambda_function.py
updating: lambda_function.py (172 bytes security) (deflated 23%)
```

Download pre-built shared indexes: Reduce the indexing time and CPU load with pre-built Python packages shared indexes // Always download // Downlo... (3 minutes ago)

Figure 4Simple Welcome program wrote in pycharm

Uploaded zip code into the aws lambda web console



Successfully updated the function HelloWorld.

```python
import json

def lambda_handler(event, context):
    # TODO implement
    return {
        'statusCode': 200,
        'body': json.dumps('Hello from Lambda! from indu')
    }
```

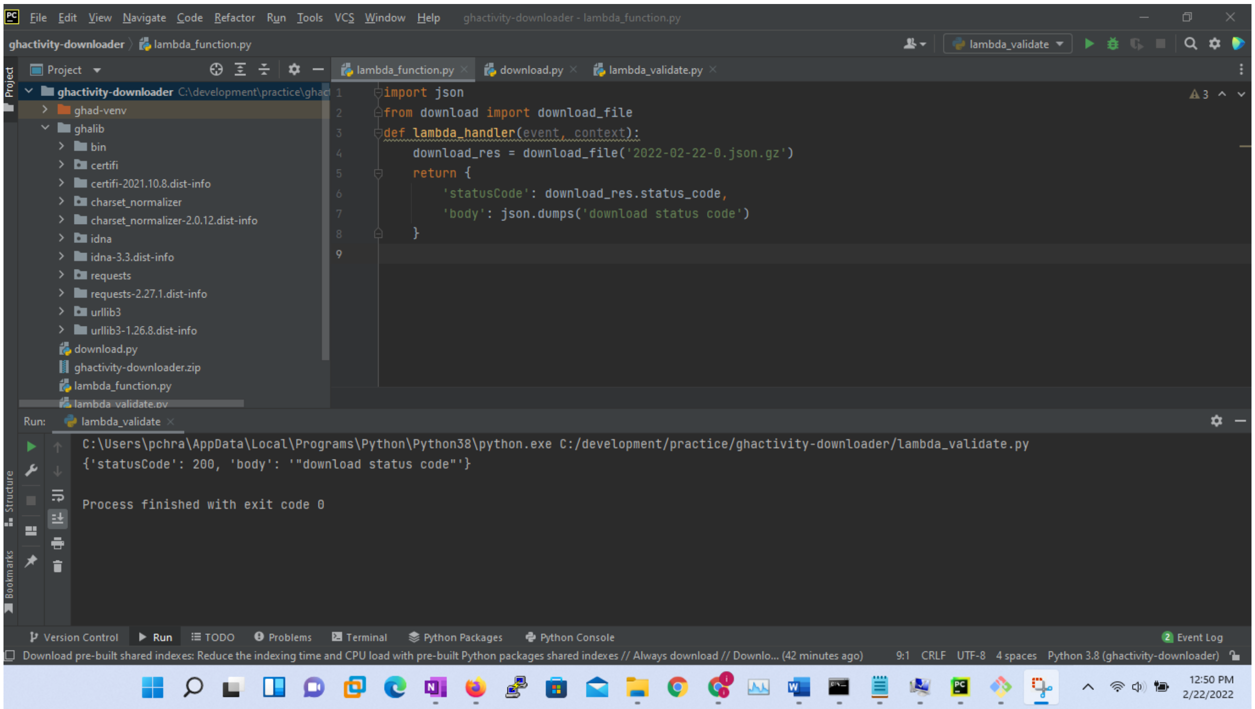
Develop download functionality using requests

Develop the base functionality to download the zip file using requests library. I have created a new program called download.py for this.

```
import requests
def download_file(file):
res = requests.get(f'https://data.gharchive.org/{file}')
return res
```

Refactor the code as part of lambda_function.py to invoke the new function and also to capture the response.

```
import json
from download import download_file

def lambda_handler(event, context):

  download_res = download_file('2021-01-29-0.json.gz')

  return {

    'statusCode': download_res.status_code,

    'body': json.dumps('Download status code')

  }
```

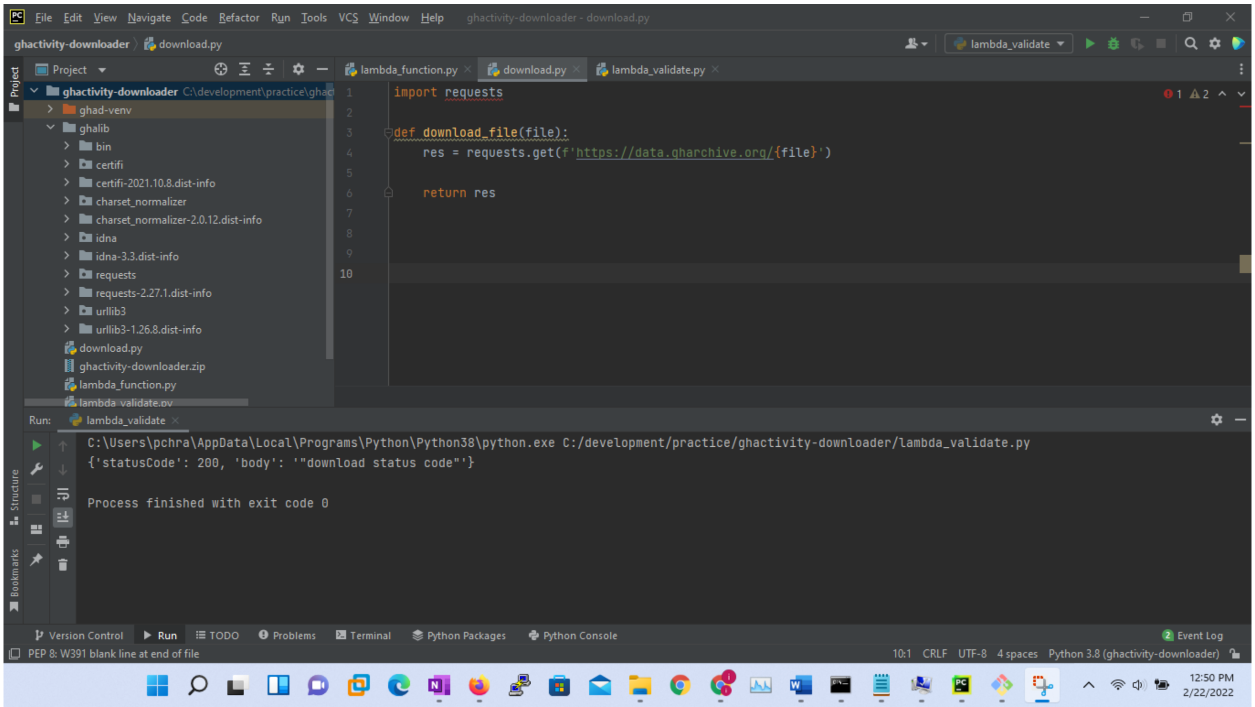


File Edit View Navigate Code Refactor Run Tools VCS Window Help
ghactivity-downloader - lambda_function.py
ghactivity-downloader 〉 lambda_function.py
lambda_validate
Project
lambda_function.py
download.py
lambda_validate.py
ghactivity-downloader C:\development\practice\ghac
ghad-venv
ghalib
bin
certifi
certifi-2021.10.8.dist-info
charset_normalizer
charset_normalizer-2.0.12.dist-info
idna
idna-3.3.dist-info
requests
requests-2.27.1.dist-info
urllib3
urllib3-1.26.8.dist-info
download.py
ghactivity-downloader.zip
lambda_function.py
lambda_validate.py
Run:
lambda_validate
Version Control
Run
TODO
Problems
Terminal
Python Packages
Python Console
Event Log
9:1 CRLF UTF-8 4 spaces Python 3.8 (ghactivity-downloader)
12:50 PM
2/22/2022

```
import json
from download import download_file
def lambda_handler(event, context):
    download_res = download_file('2022-02-22-0.json.gz')
    return {
        'statusCode': download_res.status_code,
        'body': json.dumps('download status code')
    }
```

```
C:\Users\pchra\AppData\Local\Programs\Python\Python38\python.exe C:/development/practice/ghactivity-downloader/lambda_validate.py
{'statusCode': 200, 'body': '"download status code"'}

Process finished with exit code 0
```

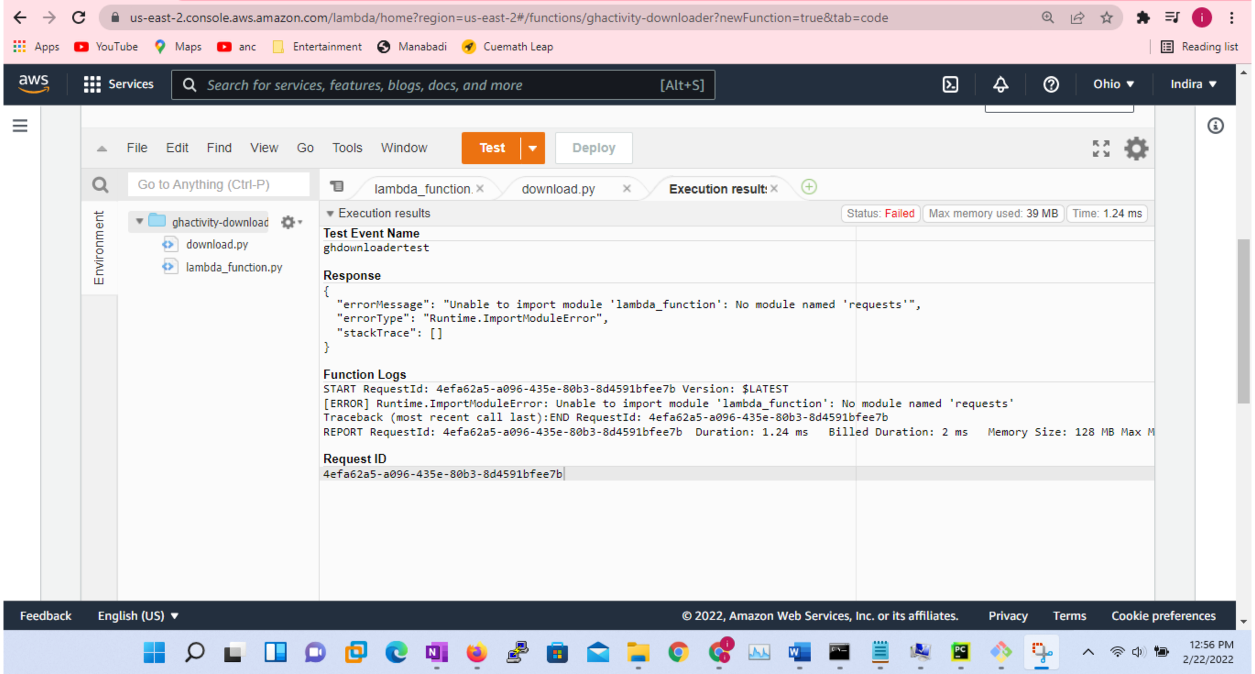
Download pre-built shared indexes: Reduce the indexing time and CPU load with pre-built Python packages shared indexes // Always download // Downlo... (42 minutes ago)


File Edit View Navigate Code Refactor Run Tools VCS Window Help ghactivity-downloader - download.py
ghactivity-downloader download.py
lambda_validate
Project
lambda_function.py
download.py
lambda_validate.py
ghactivity-downloader C:\development\practice\ghac
ghad-venv
ghalib
bin
certifi
certifi-2021.10.8.dist-info
charset_normalizer
charset_normalizer-2.0.12.dist-info
idna
idna-3.3.dist-info
requests
requests-2.27.1.dist-info
urllib3
urllib3-1.26.8.dist-info
download.py
ghactivity-downloader.zip
lambda_function.py
lambda_validate.py
Run: lambda_validate
Version Control Run TODO Problems Terminal Python Packages Python Console Event Log
PEP 8: W391 blank line at end of file
10:1 CRLF UTF-8 4 spaces Python 3.8 (ghactivity-downloader)
12:50 PM
2/22/2022

```
import requests

def download_file(file):
    res = requests.get(f'https://data.gharchive.org/{file}')

    return res

```

```
C:\Users\pchra\AppData\Local\Programs\Python\Python38\python.exe C:/development/practice/ghactivity-downloader/lambda_validate.py
{'statusCode': 200, 'body': '"download status code"'}

Process finished with exit code 0
```

Python program is zipped and that zip file is uploaded into the aws lambda it’s not failing “unable to import module requests


us-east-2.console.aws.amazon.com/lambda/home?region=us-east-2#/functions/ghactivity-downloader?newFunction=true&tab=code
Apps YouTube Maps anc Entertainment Manabadi Cuemath Leap Reading list
aws Services Search for services, features, blogs, docs, and more [Alt+S]
Ohio Indira
File Edit Find View Go Tools Window Test Deploy
Go to Anything (Ctrl-P)
Environment
ghactivity-download
download.py
lambda_function.py
lambda_function.
download.py
Execution result:
Feedback English (US)
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12:56 PM
2/22/2022

Execution results

Status: Failed | Max memory used: 39 MB | Time: 1.24 ms

Test Event Name

```
ghdownloadertest
```

Response

```
{
  "errorMessage": "Unable to import module 'lambda_function': No module named 'requests'",
  "errorType": "Runtime.ImportModuleError",
  "stackTrace": []
}
```

Function Logs

```
START RequestId: 4efa62a5-a096-435e-80b3-8d4591bfee7b Version: $LATEST
[ERROR] Runtime.ImportModuleError: Unable to import module 'lambda_function': No module named 'requests'
Traceback (most recent call last):END RequestId: 4efa62a5-a096-435e-80b3-8d4591bfee7b
REPORT RequestId: 4efa62a5-a096-435e-80b3-8d4591bfee7b  Duration: 1.24 ms   Billed Duration: 2 ms   Memory Size: 128 MB Max M
```

Request ID

```
4efa62a5-a096-435e-80b3-8d4591bfee7b
```

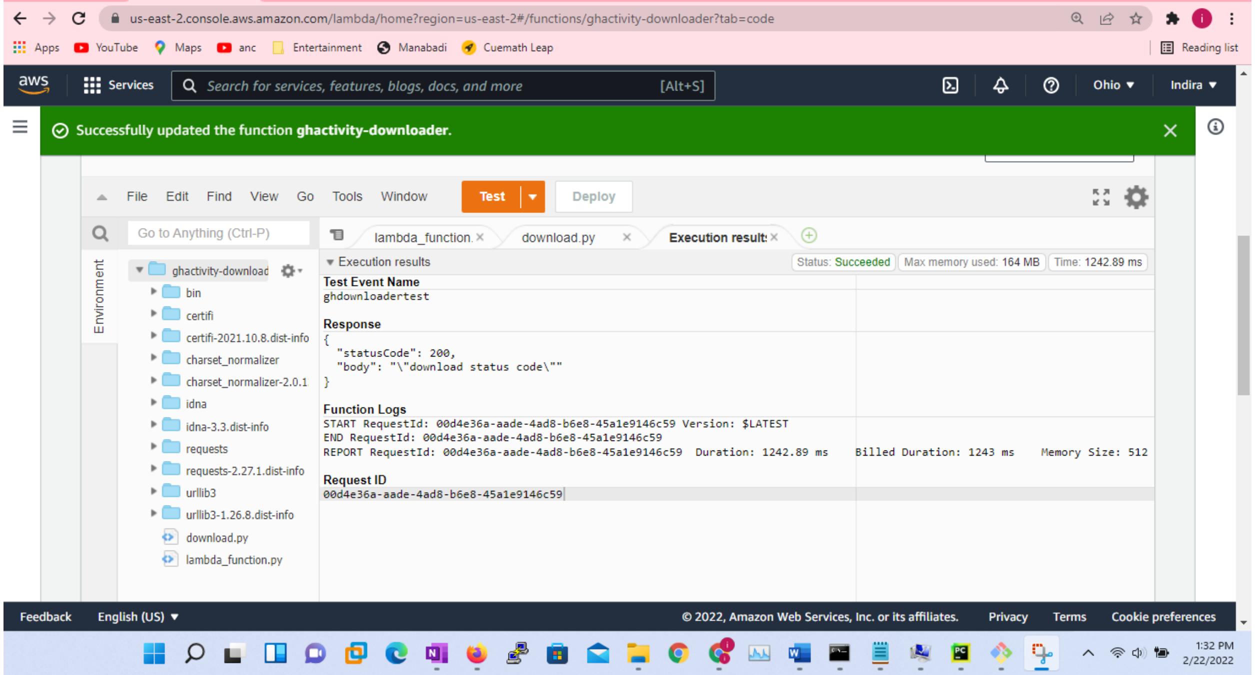
Now to have to include request as part of the zip file then we have to reupload the zip file.

Using 3rd party libraries in AWS Lambda:

We need to go to the folder to build the zip file. Make sure the zip file is created in the base directory of the project and update the zip file with source code.

```
rm ghactivity-downloader.zip
cd Ghalib
zip -r ../ghactivity-downloader.zip .
cd ..
zip -g ghactivity-downloader.zip lambda_function.py download.py
```

- We can upload the zip file to AWS Lambda console and validate successfully. Make sure to increase memory size to 512 MB as demonstrated.



Successfully updated the function **ghactivity-downloader**.

Execution results — Status: Succeeded | Max memory used: 164 MB | Time: 1242.89 ms

Test Event Name

```
ghdownloadertest
```

Response

```
{
  "statusCode": 200,
  "body": "\"download status code\""
}
```

Function Logs

```
START RequestId: 00d4e36a-aade-4ad8-b6e8-45a1e9146c59 Version: $LATEST
END RequestId: 00d4e36a-aade-4ad8-b6e8-45a1e9146c59
REPORT RequestId: 00d4e36a-aade-4ad8-b6e8-45a1e9146c59  Duration: 1242.89 ms    Billed Duration: 1243 ms    Memory Size: 512
```

Request ID

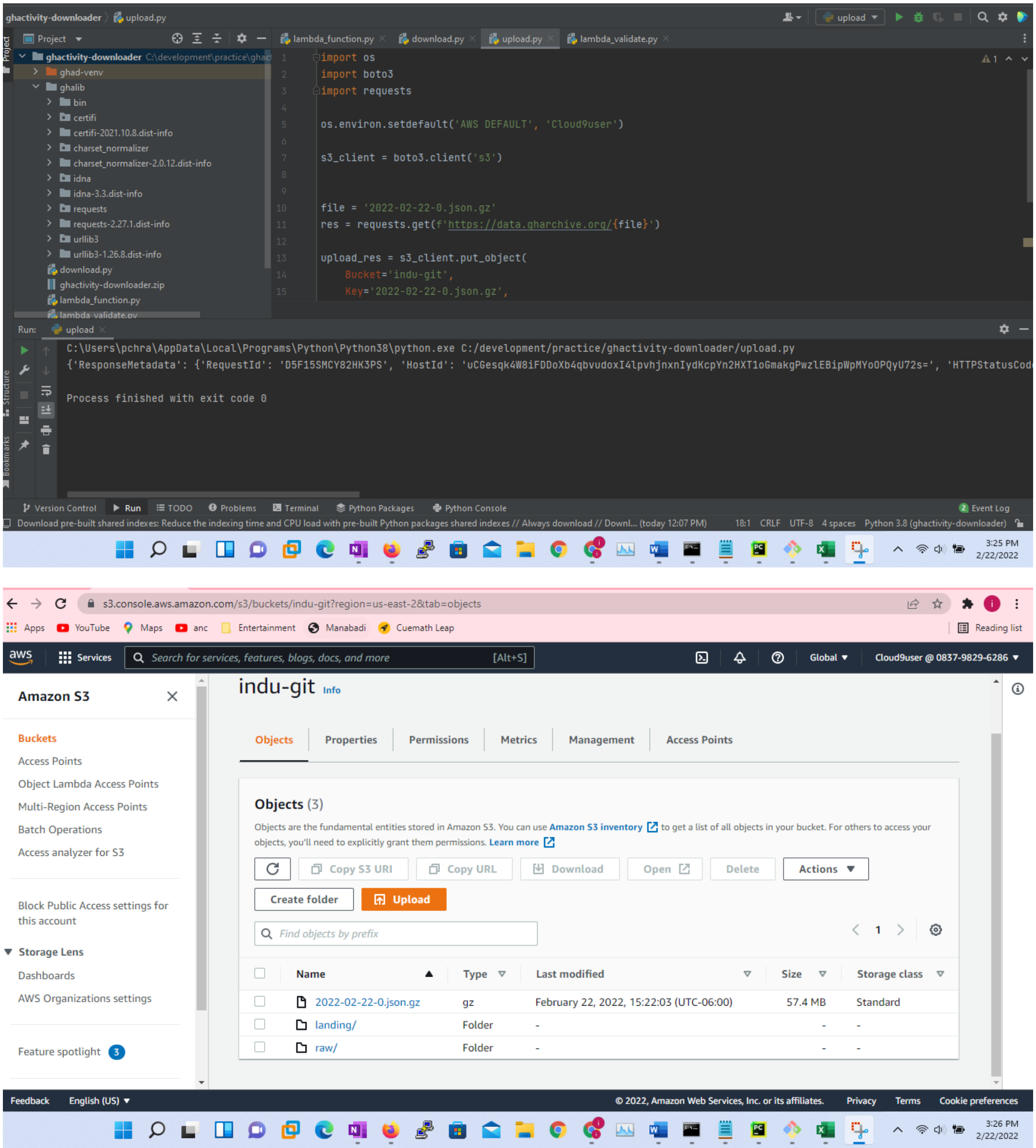
```
00d4e36a-aade-4ad8-b6e8-45a1e9146c59
```

Validating s3 access for local development:

Let us validate s3 access for local development. We need to have the appropriate credentials to access s3 bucket from the local development environment.

- Develop the code to upload the contents of the zip file from GitHub archive to s3. We will create a new file called upload.py.

```
import os
import boto3
import requests
os.environ.setdefault('AWS_DEFAULT', 'itvgithub')
s3_client = boto3.client('s3')
file = '2021-01-29-0.json.gz'
res = requests.get(f'https://data.gharchive.org/{file}')
upload_res = s3_client.put_object(
    Bucket='itv-github',
    Key='2021-01-29-0.json.gz',
    Body=res.content
)
print(upload_res)
```



```
import os
import boto3
import requests

os.environ.setdefault('AWS DEFAULT', 'Cloud9user')

s3_client = boto3.client('s3')


file = '2022-02-22-0.json.gz'
res = requests.get(f'https://data.gharchive.org/{file}')

upload_res = s3_client.put_object(
    Bucket='indu-git',
    Key='2022-02-22-0.json.gz',
```

```
C:\Users\pchra\AppData\Local\Programs\Python\Python38\python.exe C:/development/practice/ghactivity-downloader/upload.py
{'ResponseMetadata': {'RequestId': 'D5F15SMCY82HK3PS', 'HostId': 'uCGesqk4W8iFDDoXb4qbvudoxI4lpvhjnxnIydKcpYn2HXT1oGmakgPwzlEBipWpMYoOPQyU72s=', 'HTTPStatusCod

Process finished with exit code 0
```

s3.console.aws.amazon.com/s3/buckets/indu-git?region=us-east-2&tab=objects

indu-git

Objects (3)

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

Name	Type	Last modified	Size	Storage class
2022-02-22-0.json.gz	gz	February 22, 2022, 15:22:03 (UTC-06:00)	57.4 MB	Standard
landing/	Folder	-	-	-
raw/	Folder	-	-	-

Figure 5File is uploaded into the s3 bucket from local environment

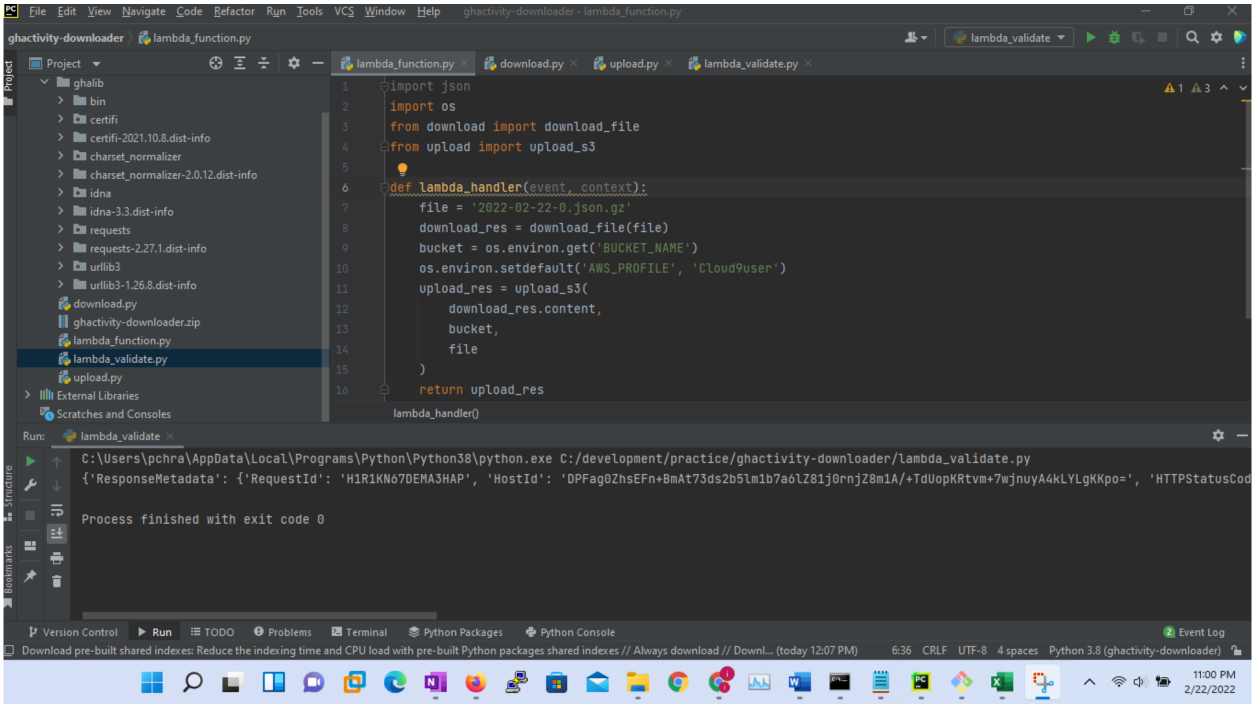
Develop upload functionality to s3:

- We need to ensure that the role using which lambda function is being executed has permission on the target bucket.
- Let us create a sandbox folder under indu-git bucket.
- We need to develop a new function as part of a new program which takes the response object and uploads it as an object in s3.

```
import boto3
def get_client():
  return boto3.client('s3')
def upload_s3(body, bucket, file):
  s3_client = get_client()
  res = s3_client.put_object(
    Bucket=bucket,
    Key=file,
    Body=body
  )
  return res
```

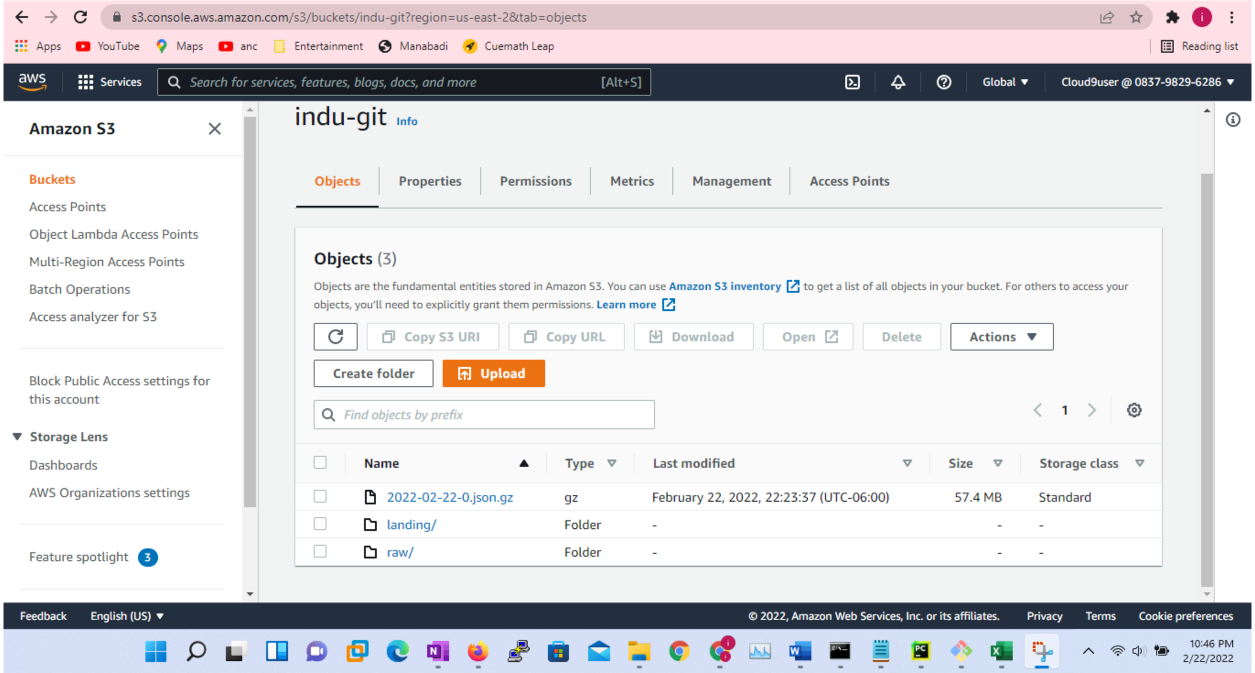
- We also need to update the logic in the lambda handler to call the function which uploads the response as an object in s3.

```
import os
from download import download_file
from upload import upload_s3
def lambda_handler(event, context):
    file = '2021-01-29-2.json.gz'
    download_res = download_file(file)
    bucket = os.environ.get('BUCKET_NAME')
    environ = os.environ.get('ENVIRON')
    if environ == 'DEV':
        print(f'Running in {environ} environment')
        os.environ.setdefault('AWS_PROFILE', 'itvgithub')
    upload_res = upload_s3(
        download_res.content,
        bucket,
        file
    )
    return upload_res
```



```python
import json
import os
from download import download_file
from upload import upload_s3

def lambda_handler(event, context):
    file = '2022-02-22-0.json.gz'
    download_res = download_file(file)
    bucket = os.environ.get('BUCKET_NAME')
    os.environ.setdefault('AWS_PROFILE', 'Cloud9user')
    upload_res = upload_s3(
        download_res.content,
        bucket,
        file
    )
    return upload_res
```

```
C:\Users\pchra\AppData\Local\Programs\Python\Python38\python.exe C:/development/practice/ghactivity-downloader/lambda_validate.py
{'ResponseMetadata': {'RequestId': 'H1R1KN67DEMA3HAP', 'HostId': 'DPFag0ZhsEFn+BmAt73ds2b5lm1b7a6lZ81j0rnjZ8m1A/+TdUopKRtvm+7wjnuyA4kLYLgKKpo=', 'HTTPStatusCod

Process finished with exit code 0
```



Objects (3)

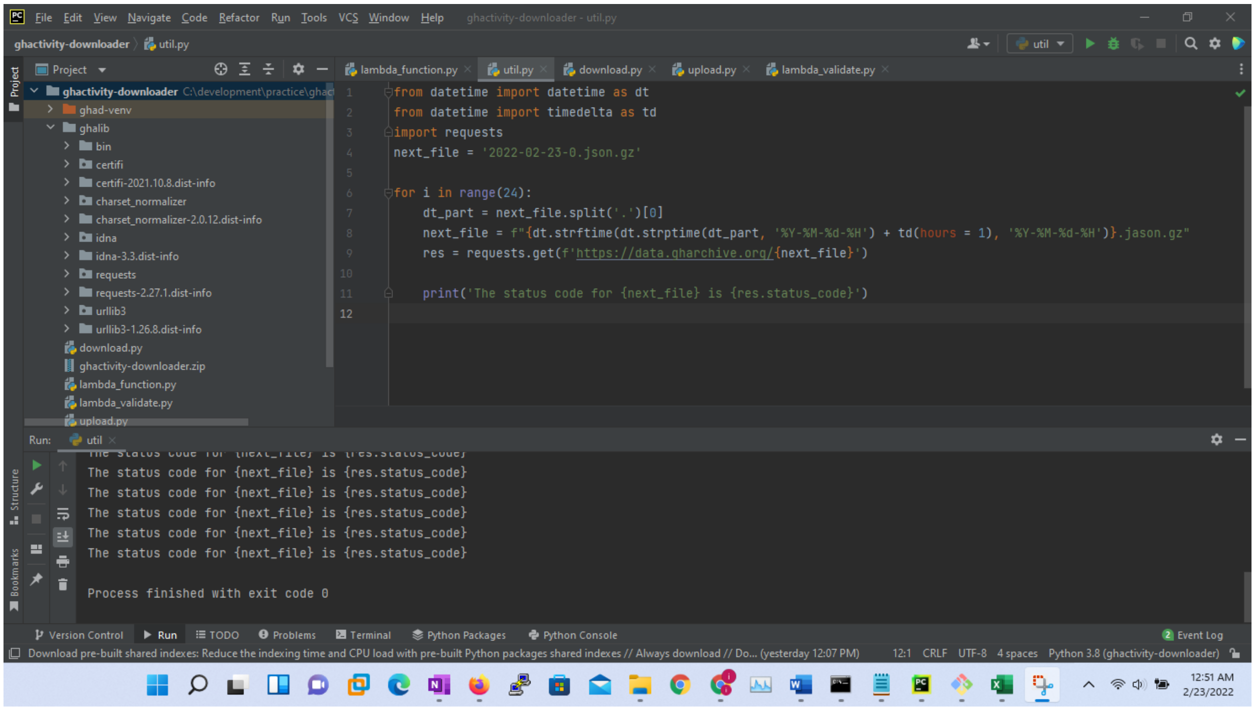
Objects are the fundamental entities stored in Amazon S3. You can use Amazon S3 inventory to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. Learn more

Name	Type	Last modified	Size	Storage class
2022-02-22-0.json.gz	gz	February 22, 2022, 22:23:37 (UTC-06:00)	57.4 MB	Standard
landing/	Folder	-	-	-
raw/	Folder	-	-	-

Validating files incrementally

- We can convert the date and hour part of the file to timestamp.
- Once we get the timestamp we should be able to use **timedelta** to add 1 hour in each iteration.
- Using the new date and time, we should be able to generate the next file. We can check whether the file is already available or not.

```
from datetime import datetime as dt
from datetime import timedelta as td
import requests
next_file = '2021-01-30-0.json.gz'

while True:
    res = requests.get(f'https://data.gharchive.org/{next_file}')
    if res.status_code != 200:
        break
    print(f'The status code for {next_file} is {res.status_code}')
    dt_part = next_file.split('.')[0]
    next_file = f"{dt.strftime(dt.strptime(dt_part, '%Y-%M-%d-%H') + td(hours=1), '%Y-%M-%d-%H')}.json.gz
```



```
from datetime import datetime as dt
from datetime import timedelta as td
import requests
next_file = '2022-02-23-0.json.gz'

for i in range(24):
    dt_part = next_file.split('.')[0]
    next_file = f"{dt.strftime(dt.strptime(dt_part, '%Y-%M-%d-%H') + td(hours = 1), '%Y-%M-%d-%H')}.jason.gz"
    res = requests.get(f'https://data.gharchive.org/{next_file}')

    print('The status code for {next_file} is {res.status_code}')
```

```
The status code for {next_file} is {res.status_code}
The status code for {next_file} is {res.status_code}
The status code for {next_file} is {res.status_code}
The status code for {next_file} is {res.status_code}
The status code for {next_file} is {res.status_code}
The status code for {next_file} is {res.status_code}

Process finished with exit code 0
```

Download pre-built shared indexes: Reduce the indexing time and CPU load with pre-built Python packages shared indexes // Always download // Do... (yesterday 12:07 PM)

Reading and Writing Bookmark using s3:

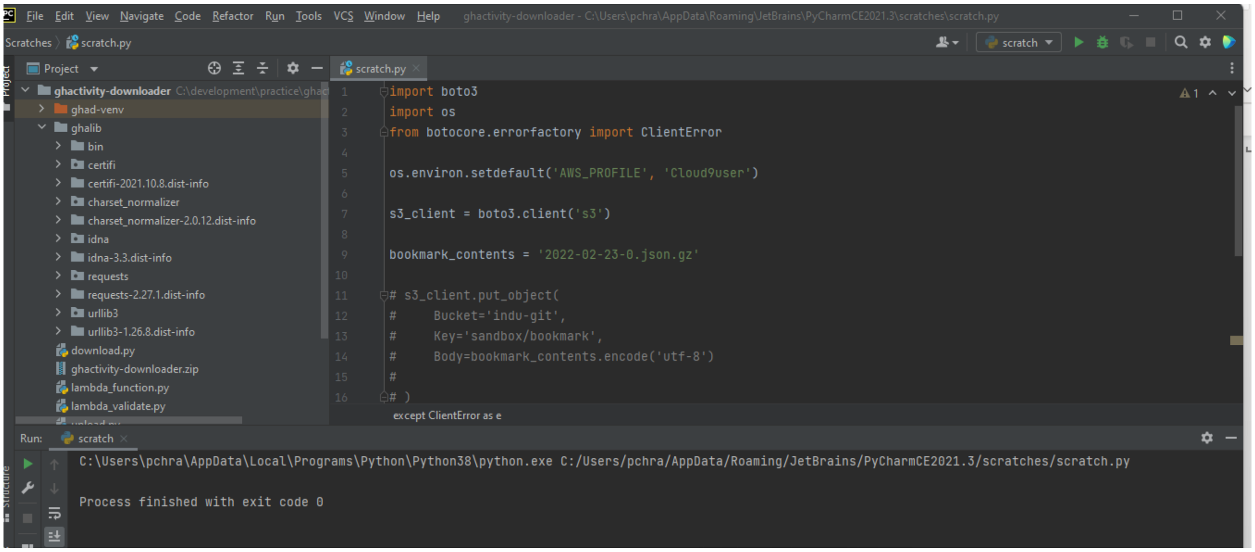
Let us go through s3 APIs to read and write bookmark details using s3. For now we will maintain the last copied file as a bookmark.

- Writing content to s3. We will use **s3://itv-github/sandbox/bookmark**.

```
bookmark_contents = '2021-01-30-0.json.gz'
s3_client.put_object(
  Bucket='indu-git',
  Key='sandbox/bookmark',
Body=bookmark_contents.encode('utf-8')
)
```

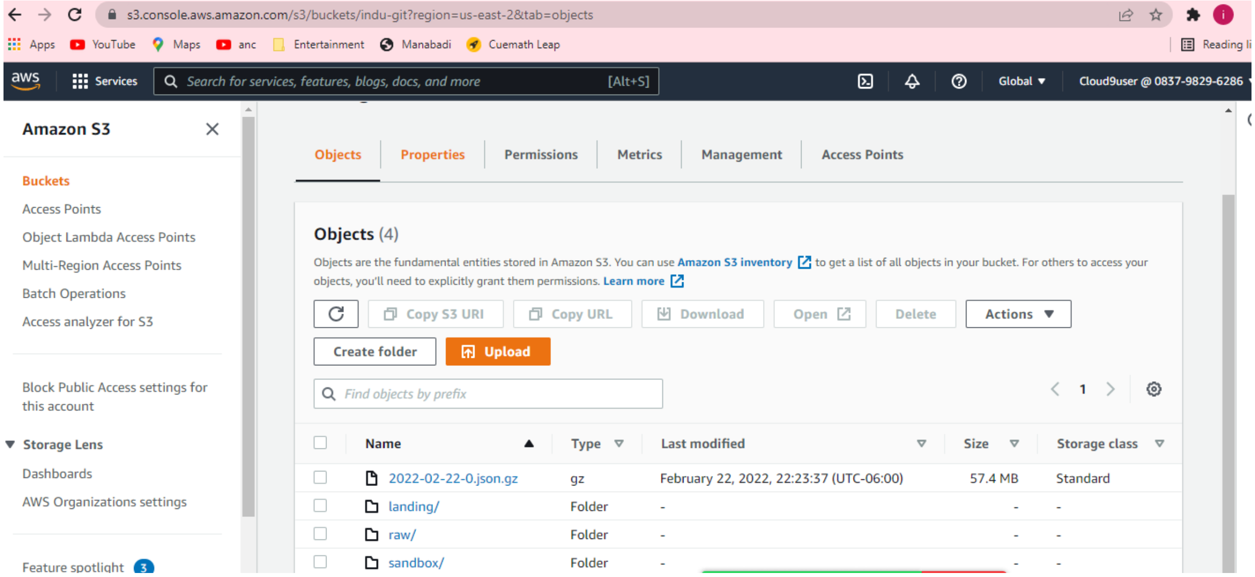
- Reading content from s3. If the bookmark is not there we need to catch the exception and use the baseline date as a bookmark.

```
try:
    bookmark_file = s3_client.get_object(
        Bucket='indu-git',
        Key='sandbox/bookmark'
   )
  prev_file = bookmark_file['Body'].read().decode('utf-8')
except ClientError as e:
    if e.response['Error']['Code'] == 'NoSuchKey':
        # Catch exception
        # prev_file = baseline_file
    else:
        raise
```


File Edit View Navigate Code Refactor Run Tools VCS Window Help
ghactivity-downloader - C:\Users\pchra\AppData\Roaming\JetBrains\PyCharmCE2021.3\scratches\scratch.py
Scratches
scratch.py
scratch
Project
ghactivity-downloader C:\development\practice\ghad
ghad-venv
ghalib
bin
certifi
certifi-2021.10.8.dist-info
charset_normalizer
charset_normalizer-2.0.12.dist-info
idna
idna-3.3.dist-info
requests
requests-2.27.1.dist-info
urllib3
urllib3-1.26.8.dist-info
download.py
ghactivity-downloader.zip
lambda_function.py
lambda_validate.py
scratch.py
except ClientError as e
Run:
scratch

```
import boto3
import os
from botocore.errorfactory import ClientError

os.environ.setdefault('AWS_PROFILE', 'Cloud9user')

s3_client = boto3.client('s3')

bookmark_contents = '2022-02-23-0.json.gz'

# s3_client.put_object(
#     Bucket='indu-git',
#     Key='sandbox/bookmark',
#     Body=bookmark_contents.encode('utf-8')
#
# )
```

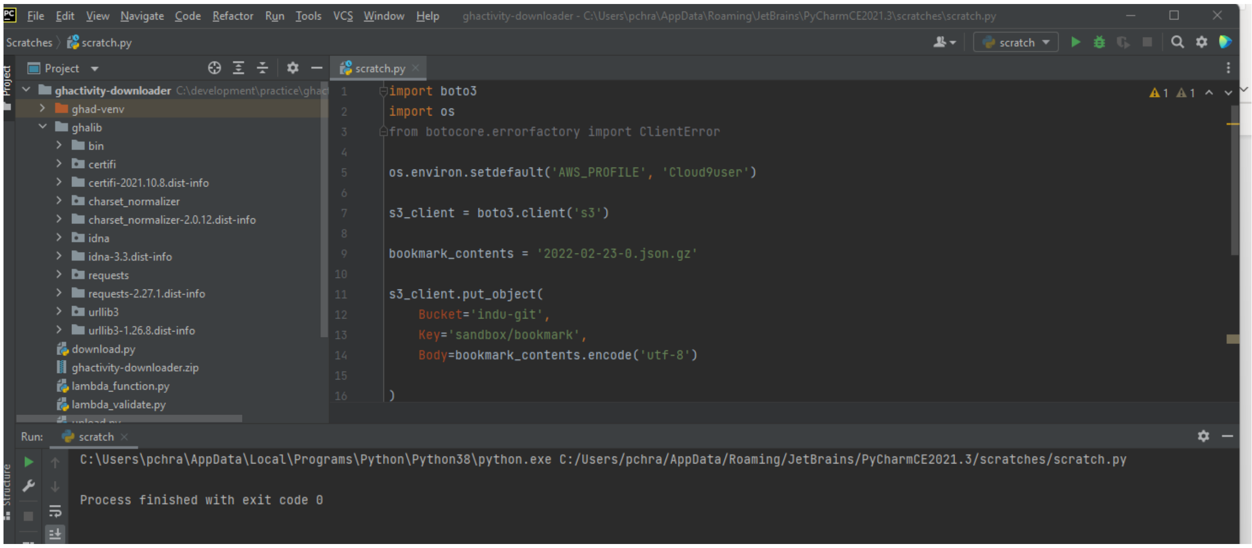
```
C:\Users\pchra\AppData\Local\Programs\Python\Python38\python.exe C:/Users/pchra/AppData/Roaming/JetBrains/PyCharmCE2021.3/scratches/scratch.py

Process finished with exit code 0
```



Objects (4)

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

□	Name	Type	Last modified	Size	Storage class
□	2022-02-22-0.json.gz	gz	February 22, 2022, 22:23:37 (UTC-06:00)	57.4 MB	Standard
□	landing/	Folder	-	-	-
□	raw/	Folder	-	-	-
□	sandbox/	Folder	-	-	-

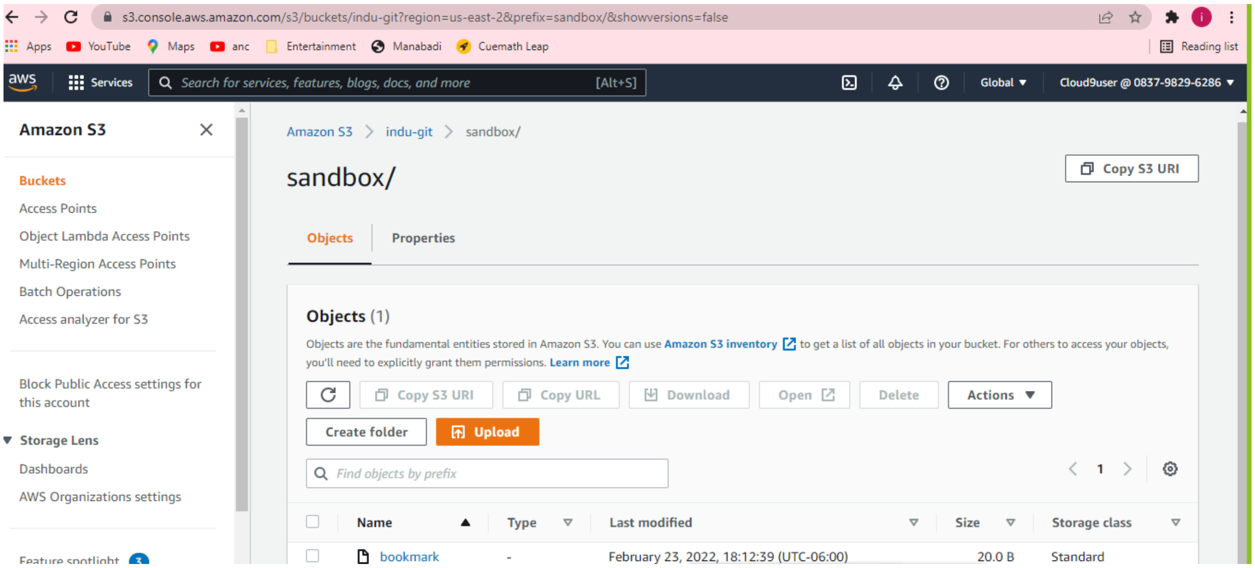


File Edit View Navigate Code Refactor Run Tools VCS Window Help
ghactivity-downloader - C:\Users\pchra\AppData\Roaming\JetBrains\PyCharmCE2021.3\scratches\scratch.py
Scratches 〉 scratch.py
scratch
Project
scratch.py
Run: scratch

```
ghactivity-downloader C:\development\practice\ghac
  ghad-venv
  ghalib
    bin
    certifi
    certifi-2021.10.8.dist-info
    charset_normalizer
    charset_normalizer-2.0.12.dist-info
    idna
    idna-3.3.dist-info
    requests
    requests-2.27.1.dist-info
    urllib3
    urllib3-1.26.8.dist-info
  download.py
  ghactivity-downloader.zip
  lambda_function.py
  lambda_validate.py
```

```python
import boto3
import os
from botocore.errorfactory import ClientError

os.environ.setdefault('AWS_PROFILE', 'Cloud9user')

s3_client = boto3.client('s3')

bookmark_contents = '2022-02-23-0.json.gz'

s3_client.put_object(
    Bucket='indu-git',
    Key='sandbox/bookmark',
    Body=bookmark_contents.encode('utf-8')

)
```

```
C:\Users\pchra\AppData\Local\Programs\Python\Python38\python.exe C:/Users/pchra/AppData/Roaming/JetBrains/PyCharmCE2021.3/scratches/scratch.py

Process finished with exit code 0
```



s3.console.aws.amazon.com/s3/buckets/indu-git?region=us-east-2&prefix=sandbox/&showversions=false
Apps
YouTube
Maps
anc
Entertainment
Manabadi
Cuemath Leap
Reading list
aws
Services
Search for services, features, blogs, docs, and more
[Alt+S]
Global ▼
Cloud9user @ 0837-9829-6286 ▼
Amazon S3
Buckets
Access Points
Object Lambda Access Points
Multi-Region Access Points
Batch Operations
Access analyzer for S3
Block Public Access settings for this account
▼ Storage Lens
Dashboards
AWS Organizations settings
Feature spotlight 3
Amazon S3 > indu-git > sandbox/
Copy S3 URI
Objects
Properties
Copy S3 URI
Copy URL
Download
Open
Delete
Actions ▼
Create folder
Upload
Find objects by prefix
1

sandbox/

Objects (1)

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**

□	Name ▲	Type	Last modified	Size	Storage class
□	bookmark	-	February 23, 2022, 18:12:39 (UTC-06:00)	20.0 B	Standard