Assignment -3
Cloud object storage and Watson Assistant

Assignment Date	19 September 2022
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Maximum Marks	2 Marks

Question-1:

1.Create a Bucket in IBM object storage.

2.Upload an 5 images to ibm object storage and make it public. write html code to displaying all the 5 images.

3.Upload a css page to the object storage and use the same page in your HTML code.

Bucket image:
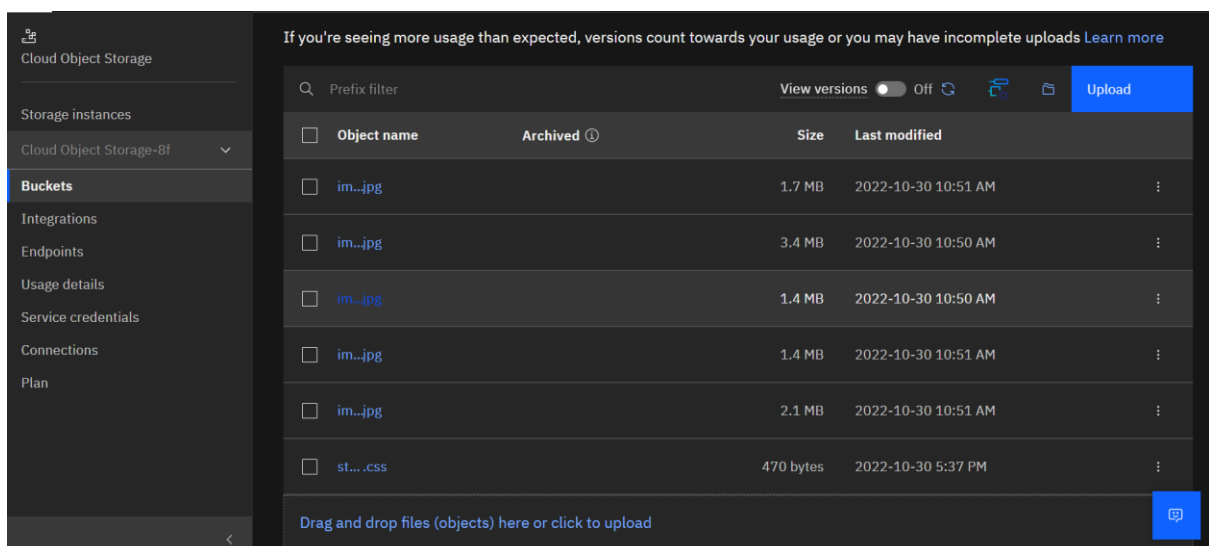
object_config.py

```
import ibm_boto3
from ibm_botocore.client import Config, ClientError

# Constants for IBM COS values
COS_ENDPOINT = "https://s3.jp-tok.cloud-object-storage.appdomain.cloud" #
Current list avaiable at https://control.cloud-object-
storage.cloud.ibm.com/v2/endpoints
COS_API_KEY_ID = "Bc32PN-Ec2mpFRVtchtdfkBJBM-uDrjwYdY12L0knCH4" # eg
"W00YixxxxxxxxxMB-odB-2ySfTrFBIQQWanc--P3byk"
```

```python
COS_INSTANCE_CRN = "crn:v1:bluemix:public:cloud-object-
storage:global:a/fc99842817e447e4be38d2cca7268d9c:183cba6d-ad4f-4d17-b129-
61f93943e367::"

# Create resource
cos = ibm_boto3.resource("s3",
    ibm_api_key_id=COS_API_KEY_ID,
    ibm_service_instance_id=COS_INSTANCE_CRN,
    config=Config(signature_version="oauth"),
    endpoint_url=COS_ENDPOINT
)

def get_buckets():
    print("Retrieving list of buckets")
    try:
        buckets = cos.buckets.all()
        for bucket in buckets:
            # print("Bucket Name: {0}".format(bucket.name))
            return bucket.name
    except ClientError as be:
        print("CLIENT ERROR: {0}\n".format(be))
    except Exception as e:
        print("Unable to retrieve list buckets: {0}".format(e))

bucket_name = get_buckets()

print(bucket_name)
def get_bucket_contents(bucket_name):
    print("Retrieving bucket contents from: {0}".format(bucket_name))
    try:
        file_names = []
        files = cos.Bucket(bucket_name).objects.all()
        for file in files:
            # print("Item: {0} ({1} bytes).".format(file.key, file.size))
            if 'img' in file.key:
                file_names.append(file.key)
        return file_names
    except ClientError as be:
        print("CLIENT ERROR: {0}\n".format(be))
    except Exception as e:
        print("Unable to retrieve bucket contents: {0}".format(e))
object_files = get_bucket_contents(bucket_name)
```

app.py:

```python
from flask import Flask, render_template, redirect
from object_config import object_files
```

```python
app = Flask(__name__)

@app.route('/')
def hello():
    return render_template('index.html', files = object_files)

if __name__=='__main__':
    app.run()
```

index.html

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <link rel="stylesheet" href="https://s3.jp-tok.cloud-object-
storage.appdomain.cloud/obj-bucket-1/styles.css">
    <!-- <link rel="stylesheet" href="{{
url_for('static',filename='css/styles.css') }}"> -->
    <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/css/bootstrap.min.css"
rel="stylesheet"
        integrity="sha384-
EVSTQN3/azprG1Anm3QDgpJLIm9Nao0Yz1ztcQTwFspd3yD65VohhpuuCOmLASjC"
crossorigin="anonymous">
    <script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/js/bootstrap.bundle.min
.js"
        integrity="sha384-
MrcW6ZMFYlzcLA8Nl+NtUVF0sA7MsXsP1UyJoMp4YLEuNSfAP+JcXn/tWtIaxVXM"
        crossorigin="anonymous"></script>
    <title>IBM Object Storage</title>
</head>
<body>
    <div class="content">
        <h1 class="display-1">Object Storage images</h1>
        <div class="row">
            {% for img in files: %}
            <div class="col">
                <div class="polaroid">
                    <img src="https://s3.jp-tok.cloud-object-
storage.appdomain.cloud/obj-bucket-1/{{img}}" alt="{{img}}"
                        style="width:100%">
                    <div class="label-text">
```

```
                <p>{{img}}</p>
            </div>
        </div>
    </div>
    {%endfor%}
        </div>
    </div>
</body>
</html>
```

Final output:

Object Storage images

4.Design a chatbot using IBM Watson assistant for hospital. Ex: User comes with query to know the branches for that hospital in your city. Submit the web URL of that chat bot as a assignment.

5.Create Watson assistant service with 10 steps and use 3 conditions in it. Load that script in HTML page.

Url

https://web-chat.global.assistant.watson.appdomain.cloud/preview.html?backgroundImageURL=https%3A%2F%2Fau-syd.assistant.watson.cloud.ibm.com%2Fpublic%2Fimages%2Fupx-cb7201bb-9098-466d-9b33-f39a179557bf%3A%3A9042e148-f016-4634-a34d-1fc3202e7a68&integrationID=3e7b6047-e838-477d-adbe-4a28e573cc27&region=au-syd&serviceInstanceID=cb7201bb-9098-466d-9b33-f39a179557bf

Steps and condition:
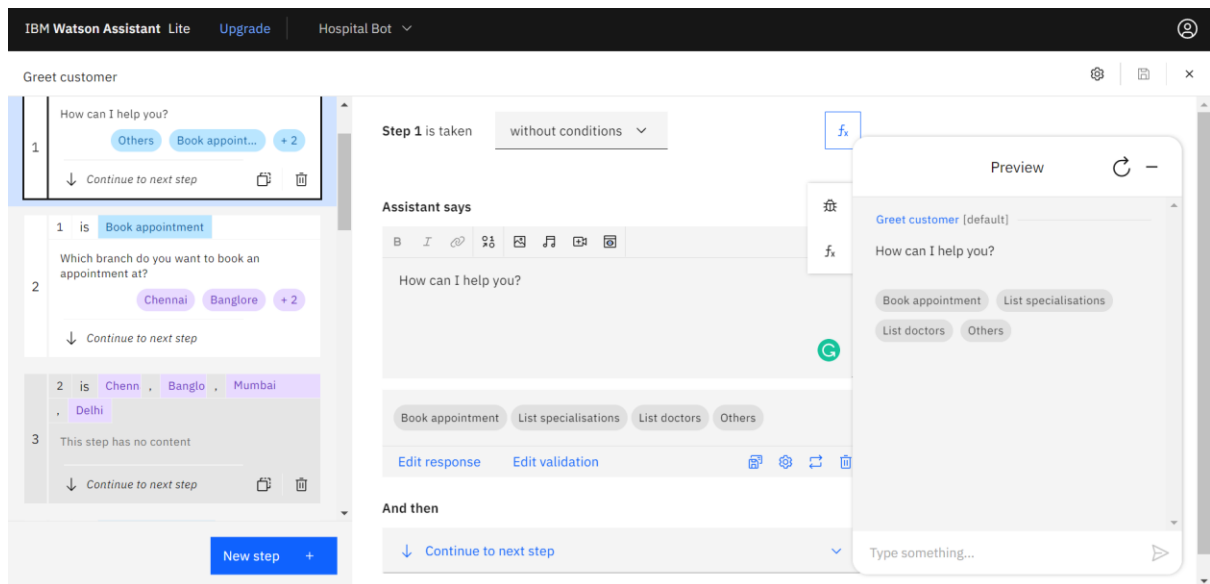
Script for chatbot:

```html
<script>
        window.watsonAssistantChatOptions = {
          integrationID: "3e7b6047-e838-477d-adbe-4a28e573cc27",
          region: "au-syd",
          serviceInstanceID: "cb7201bb-9098-466d-9b33-f39a179557bf",
          onLoad: function(instance) { instance.render(); }
        };
        setTimeout(function(){
          const t=document.createElement('script');
          t.src="https://web-
chat.global.assistant.watson.appdomain.cloud/versions/" +
(window.watsonAssistantChatOptions.clientVersion || 'latest') +
"/WatsonAssistantChatEntry.js";
          document.head.appendChild(t);
        });
      </script>
```

HTML output: