

**Assignment -3**  
**IBM Object Storage and IBM Watson Assistant**

Assignment Date	08 november 2022
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Maximum Marks	2 Marks

**Question 1:**

Create a Bucket in IBM object storage.

**Solution:**

**ibmCloudTest.py**

```
import ibm_boto3

from ibm_botocore.client import Config, ClientError

from ibm_s3transfer.aspera.manager import AsperaTransferManager

from ibm_s3transfer.aspera.manager import AsperaConfig

from flask import Flask, render_template, url_for, request, redirect


COS_ENDPOINT="https://s3.jp-tok.cloud-object-storage.appdomain.cloud"

COS_API_KEY_ID="wprEMAxjHj5sPI959wL_3HJczOWRbYn52XUuLrDSJON"

COS_INSTANCE_CRN="crn:v1:bluemix:public:cloud-object-
storage:global:a/602bcdcf9224f7b8c2e1aed60258292:b846251f-3216-44c8-b123-4e13e3571cda::"


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

)


ms_transfer_config = AsperaConfig(multi_session=2, multi_session_threshold_mb=100)

transfer_manager = AsperaTransferManager(client=client, transfer_config=ms_transfer_config)


app=Flask(__name__)
```

```
bucket_name = "flask-application"
```

```
download_filename = "E:\IMS\static\css\Styles.css"
```

```
object_name = "Styles.css"
```

```
with AsperaTransferManager(client) as transfer_manager:
```

```
    future = transfer_manager.download(bucket_name, object_name, download_filename)
```

```
    future.result()
```

```
def get_item(bucket_name, item_name):
```

```
    print("Retrieving item from bucket: {0}, key: {1}".format(bucket_name, item_name))
```

```
    try:
```

```
        file = cos.Object(bucket_name, item_name).get()
```

```
        print("File Contents: {0}".format(file["Body"].read()))
```

```
    except ClientError as be:
```

```
        print("CLIENT ERROR: {0}\n".format(be))
```

```
    except Exception as e:
```

```
        print("Unable to retrieve file contents: {0}".format(e))
```

```
def get_bucket_contents(bucket_name):
```

```
    print("Retrieving bucket contents from: {0}".format(bucket_name))
```

```
    try:
```

```
        files = cos.Bucket(bucket_name).objects.all()
```

```
        files_names = []
```

```
        print(files)
```

```
        for file in files:
```

```
            files_names.append(file.key)
```

```
            print("Item: {0} ({1} bytes)".format(file.key, file.size))
```

```
        return files_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))
```

```
@app.route('/')
```

```
def index():
```

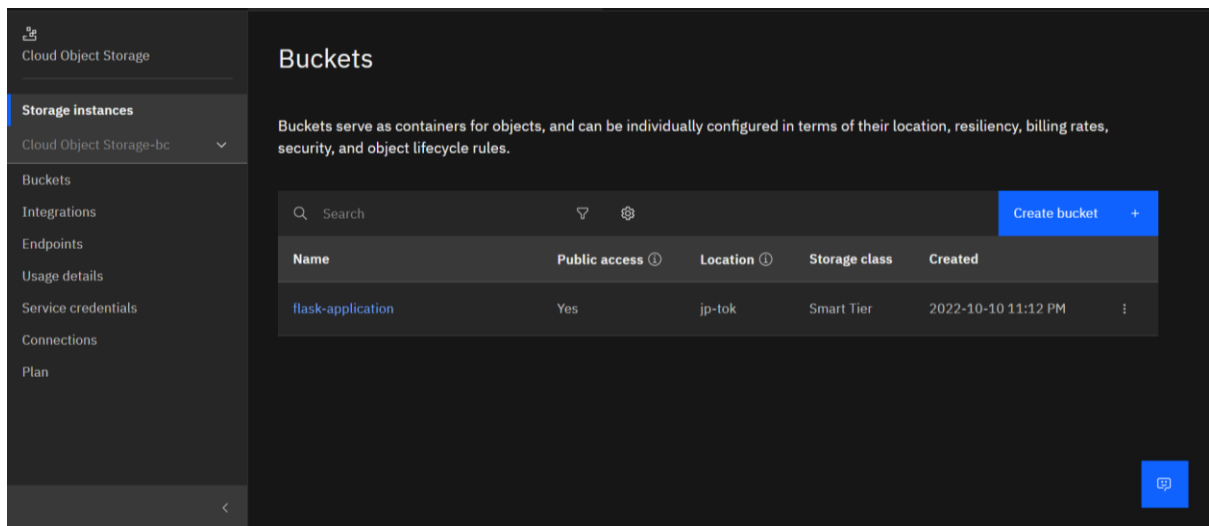
```
    files = get_bucket_contents('flask-application')
```

```
    return render_template('index.html', files = files)
```

```
if __name__ == '__main__':
```

```
    app.run(debug=True)
```

## Output:



The screenshot shows the AWS Cloud Object Storage console. The left sidebar has a navigation menu with the following items: Cloud Object Storage, Storage instances (selected), Cloud Object Storage-bc, Buckets, Integrations, Endpoints, Usage details, Service credentials, Connections, and Plan. The main content area is titled 'Buckets' and includes a description: 'Buckets serve as containers for objects, and can be individually configured in terms of their location, resiliency, billing rates, security, and object lifecycle rules.' Below the description is a table with the following columns: Name, Public access, Location, Storage class, and Created. The table contains one row for the bucket named 'flask-application'. A 'Create bucket' button is visible in the top right corner of the table area.

Name	Public access	Location	Storage class	Created
flask-application	Yes	jp-tok	Smart Tier	2022-10-10 11:12 PM

## Question 2:

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

### Solution:

#### index.html

```
<h1>IBM Cloud Storage and IBM Watson Assistant</h1>
```

```
<br><hr>
```

```
{% block head %}
```

```
<!-- CSS -->
```

```
<link rel="stylesheet" href="{{ url_for('static',filename='css/Styles.css') }}" />
```

```
{% endblock %}
```

```
<script>
```

```
    window.watsonAssistantChatOptions = {
```

```
        integrationID: "8abe6aef-f2bb-4376-be93-7fda1857ec36", // The ID of this integration.
```

```
        region: "jp-tok", // The region your integration is hosted in.
```

```
        serviceInstanceID: "440aeee1-fbb4-4c2b-8604-cb5d605fa157", // The ID of your service instance.
```

```
        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>
```

```
<!doctype html>
```

```
<html>
```

```
    <body>
```

```
        {% for row in files %}
```

```

<div style="border: 1px solid #E0E0E0;margin:10px;">

    <h3>Filename : {{row}} </h3>

    </td>

</div>

{% endfor %}

</body>

</html>

```

## Output:

The screenshot shows the AWS Cloud Object Storage console for a bucket named 'flask-application'. The left sidebar contains navigation options like 'Storage instances', 'Cloud Object Storage-bc', 'Buckets', 'Integrations', 'Endpoints', 'Usage details', 'Service credentials', 'Connections', and 'Plan'. The main area shows the bucket's 'Objects' tab with a warning: 'Warning: All objects in this bucket have public view access.' Below the warning, there is a table of objects with columns for 'Object name', 'Archived', 'Size', and 'Last modified'. The objects listed are 'Building.jpg', 'Consultation.jpg', 'Doctors.jpg', 'Hospital Management.png', 'Hospital.jpg', and 'Styles.css'. An 'Upload' button is visible in the top right corner of the object list.

Object name	Archived	Size	Last modified
Building.jpg		7.6 KB	2022-10-17 12:11 AM
Consultation.jpg		16.0 KB	2022-10-17 12:12 AM
Doctors.jpg		100.4 KB	2022-10-17 12:12 AM
Hospital Management.png		9.7 KB	2022-10-17 12:12 AM
Hospital.jpg		7.1 KB	2022-10-17 12:16 AM
Styles.css		403 bytes	2022-10-11 9:52 AM

**Question 3:**

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

**Solution:****Styles.css**

```
body {  
    background-color: rgb(190, 229, 247);  
    text-align: center;  
    font-style: italic ;  
}  
.outercont  
{  
    height: 100vh;  
    width: 100vw;  
    display: flex;  
    flex-direction: column;  
    justify-content: space-around;  
    align-items: center;  
}  
p {  
    font-size: 20px;  
}  
h1 {  
    text-align: center;  
    font-style: normal;  
}  
h2 {  
    text-align: center;  
}  
.cont {  
    width: 700px;  
}
```

```

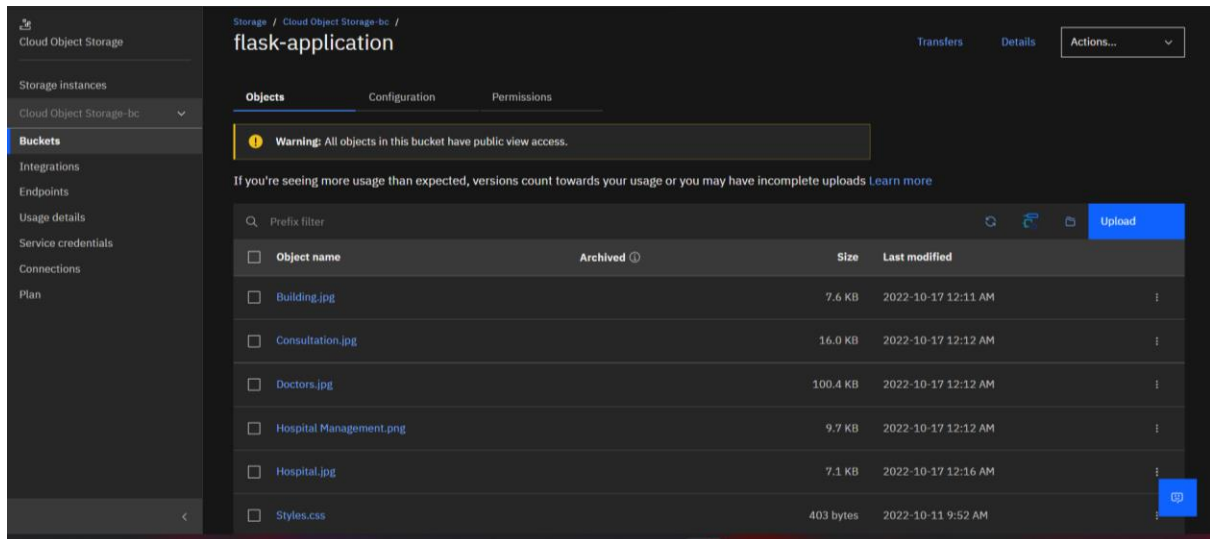
.leftcont {
    font-size: 17px;
}

.rightcont {
    font-size: 17px;
}

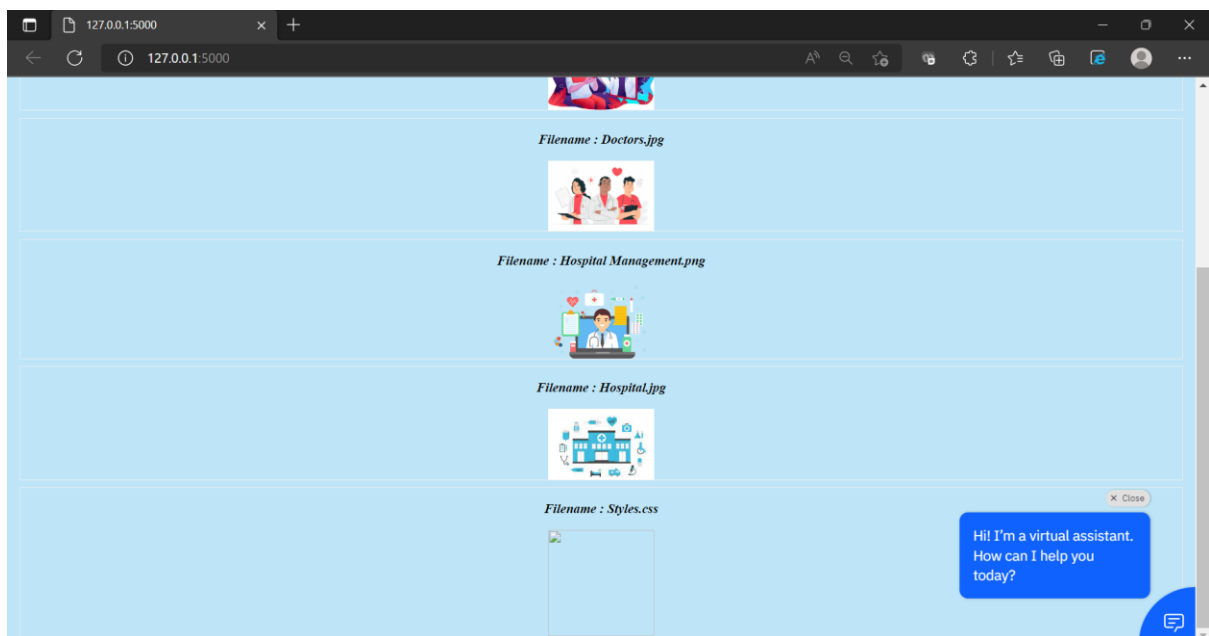
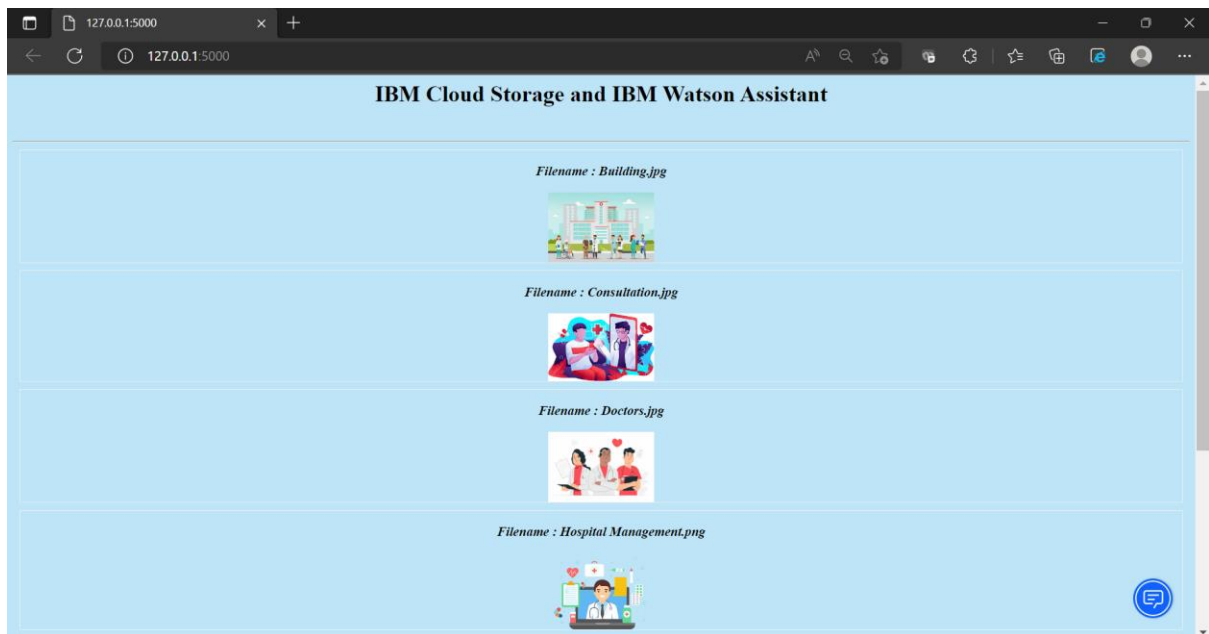
.othercont {
    display: flex;
}

```

## Output:



## Web Page:





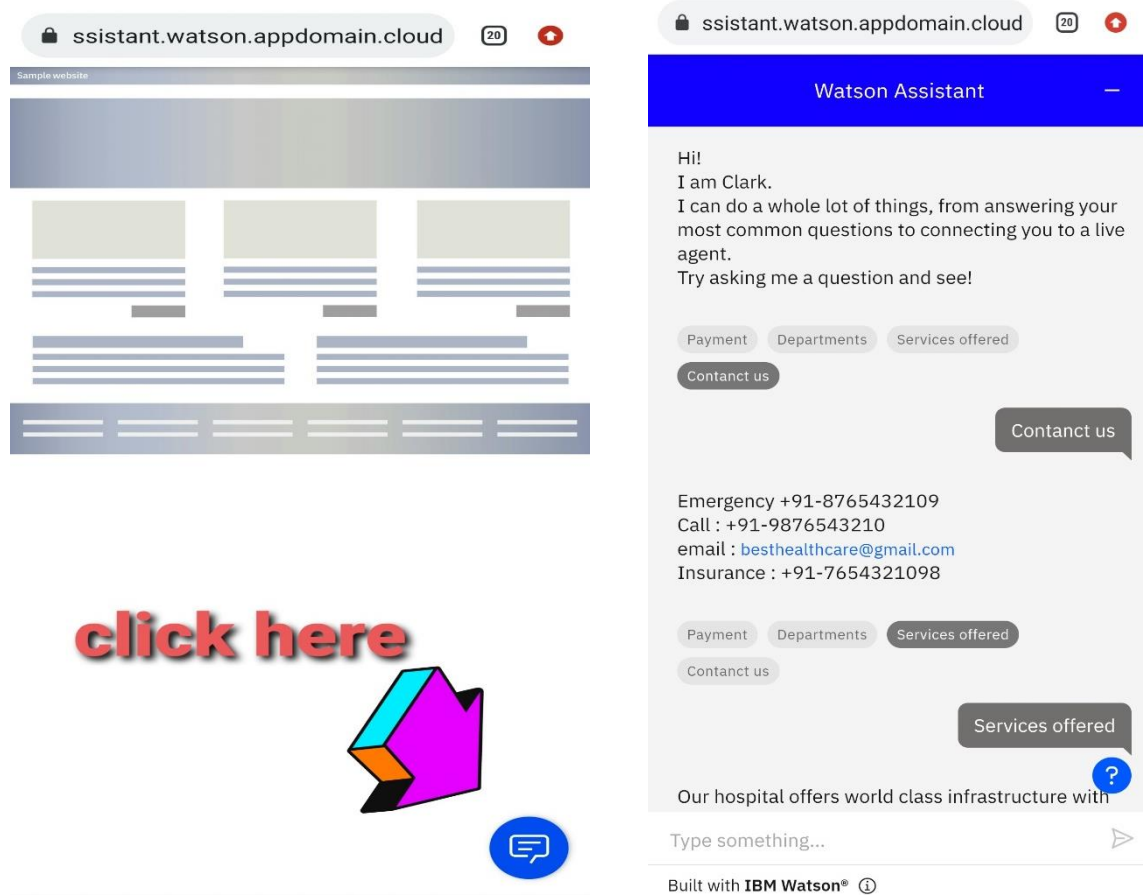
#### Question-4:

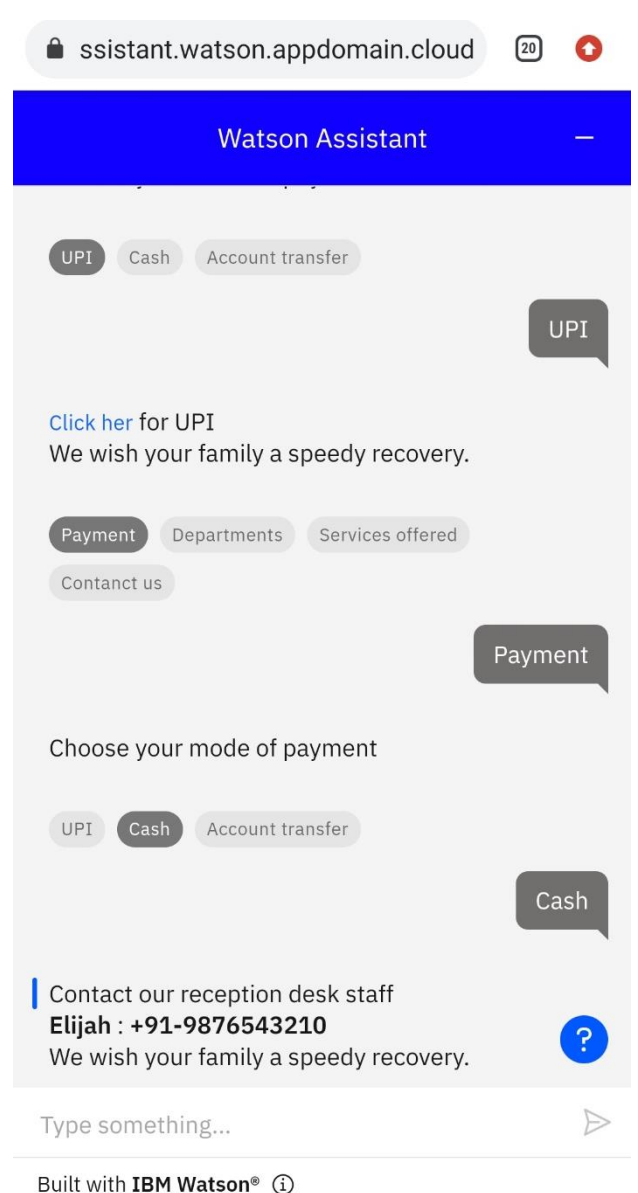
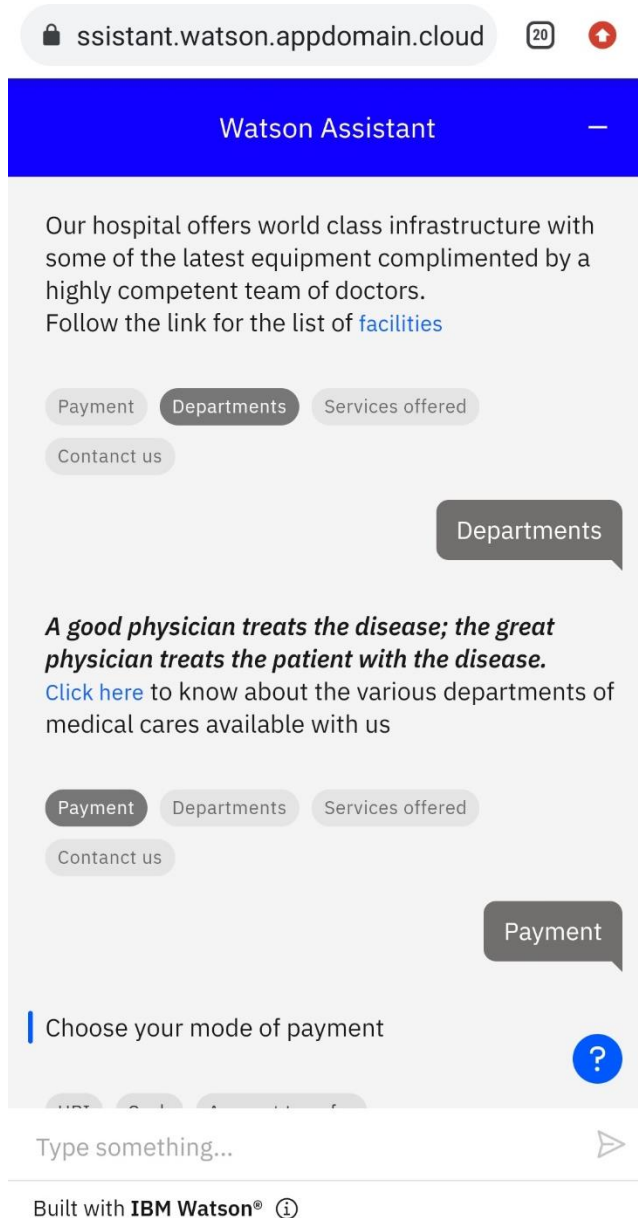
Design a chatbot using IBM Watson assistant for hospital. Ex: User comes with query to know the branches for that hospital in your city. Submit the web URL of that chat bot as a assignment.

#### Solution:

<https://web-chat.global.assistant.watson.appdomain.cloud/preview.html?backgroundImageURL=https%3A%2F%2Fjp-tok.assistant.watson.cloud.ibm.com%2Fpublic%2Fimages%2Fupx-440aaee1-fbb4-4c2b-8604-cb5d605fa157%3A%3Affa26b03-3295-42fd-a098-6723615c4e58&integrationID=a3e3b932-8ee4-43ee-9ccb-f3cfa9687188&region=jp-tok&serviceInstanceID=440aaee1-fbb4-4c2b-8604-cb5d605fa157>

#### Output:





**Question-5:**

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

**Solution:**

```
<script>
window.watsonAssistantChatOptions = {
  integrationID: "8abe6aef-f2bb-4376-be93-7fda1857ec36", // The ID of this integration.
  region: "jp-tok", // The region your integration is hosted in.
  serviceInstanceID: "440aeee1-fbb4-4c2b-8604-cb5d605fa157", // The ID of your service instance.
  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>
```

## Steps:

### Steps in payment

Make a payment

Customer starts with:  
Complete payment

Conversation steps

1

Choose your mode of payment

UPI Account tran... + 1

Continue to next step

1 == UPI

[Click her](https://pay.google.com/intl/en\_in/about/)

2 for Step 1 We wish your family a speedy recovery.

Go to action: What can you do?

1 == Account transfer

3 RTGS Account Number: 1234567890 IFSC code of the Branch :SBIN0981

Go to action: What can you do?

1 == Cash

4 Contact our reception desk staff Elijah : +91-9876543210 We wish your family a speedy recovery.

New step +

### Steps in location

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Location

Customer starts with:  
Can you please give me a list of the types of things you can he...

Conversation steps

1

We have our branch all around the world [Click here]  
(https://www.google.com/maps/search/best+health+...)

Go to action: What can you do?

New step +

steps in What can you do

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What can you do?

Conversation steps

1

This step has no content

DepartmentsPayment+ 2

↓ Continue to next step

1 == Payment

2

This step has no content

Go to action: **Make a payment**

1 == Services offered

3

Our hospital offers world class infrastructure with some of the latest equipment complimented by a...

Re-ask previous step(s)

1 == Departments

4

A good physician treats the disease; the great physician treats the patient with the disease. [Click...

Re-ask previous step(s)

1 == Contact us

5

Emergency +91-8765432109 Call : +91-9876543210 email : besthealthcare@gmail.com...

Re-ask previous step(s)

New step +

**Conditions:**

### Conditions in payment

- UPI
- Account transfer
- Cash

The screenshot displays the Microsoft Bot Framework Designer interface. At the top, a dark header bar contains a user profile icon on the right and navigation icons (a hexagon, a document, and a close 'X') on the left. Below the header, the main workspace is divided into several sections. The top section, titled 'Step 2 is taken', includes a dropdown menu set to 'with conditions' and a small icon of a box with the letter 'f'. Below this is the 'Conditions' section, which shows '1 condition' and a caret icon. It contains a configuration row: 'If All of this is true:' followed by a table with three columns. The first column contains '1. Choose your m...', the second column contains 'is', and the third column contains 'UPI'. To the right of the table is a close 'X' button. Below the table, there is a link 'Add condition +' and a link 'New condition group +'. A dropdown menu is open below the 'UPI' cell, showing the options 'defined', 'UPI', 'Account transfer', and 'Cash'. The 'defined' option is highlighted with a red border. Below the conditions section is the 'Assistant says' section, which includes a rich text editor with a toolbar (bold, italic, link, unlink, bulleted list, numbered list, indent, outdent, undo, redo) and a text area containing the text 'Click her for 1. Choose your mode of payment' and 'We wish your family a speedy recovery.' Below the text area is a button labeled 'Define customer response'. At the bottom of the interface, there is a section labeled 'And then' and a 'Preview' button with a right-pointing arrow.

## Conditions in What can you do

- Departments
- Payment
- Services offered
- Contact us

IBM Watson Assistant Lite Upgrade Clark

What can you do?

Customer starts with:  
Can you please give me a list of the types of things you can ...

Conversation steps

1 This step has no content  
Departments Payment +2  
Continue to next step

2 This step has no content  
Go to action: Make a payment

3 1 == Services offered  
Our hospital offers world class infrastructure with some of the latest equipment complimented by a...  
Re-ask previous step(s)

4 1 == Departments  
A good physician treats the disease; the great physician treats the patient with the disease. [Click...  
Re-ask previous step(s)

1 == Contact us  
Emergency +91-8765432109 Call : +91-9876543210 email : besthealthcare@email.com

New step +

Step 2 is taken with conditions

Conditions 1 condition

If All of this is true:

1. No response is Payment

and Add condition +

New condition group +

Assistant says

For example: What type of transfer would you like to make?

Define customer response

And then

Go to another action

Goes to action Make a payment

Preview

## Output:

