

**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():
```

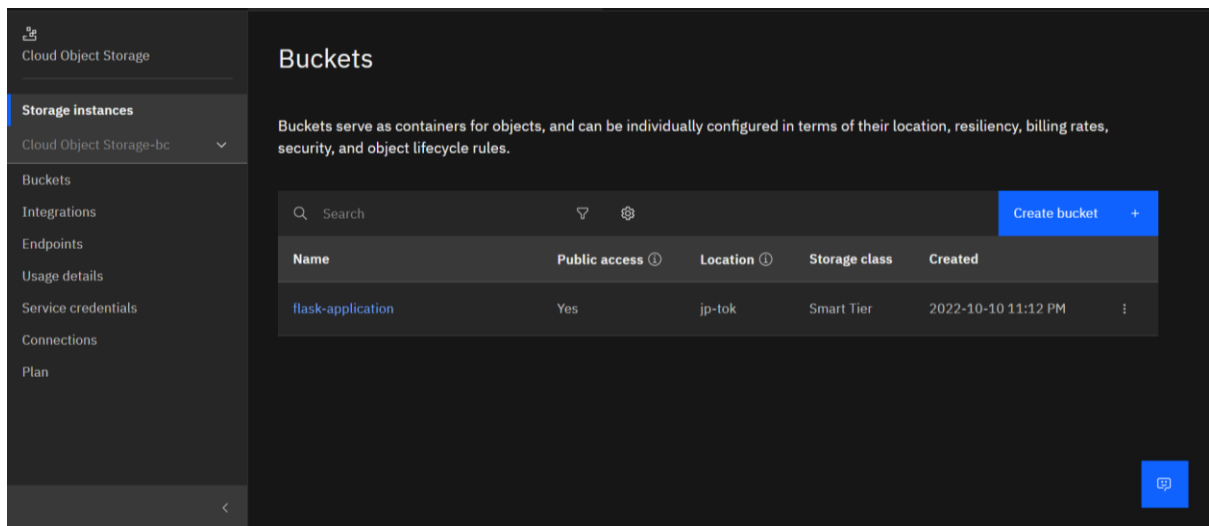
```
    files = get_bucket_contents('flask-application')
```

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

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

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

## Output:



The screenshot displays the Google Cloud Object Storage interface. On the left, a sidebar contains navigation links: Cloud Object Storage, Storage instances (selected), Cloud Object Storage-bc, Buckets, Integrations, Endpoints, Usage details, Service credentials, Connections, and Plan. The main panel is titled 'Buckets' and features a search bar, a filter icon, a settings icon, and a 'Create bucket' button. Below this is a table with the following data:

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 links for Cloud Object Storage, Storage instances, Buckets, Integrations, Endpoints, Usage details, Service credentials, Connections, and Plan. The main content area shows the bucket's details, including a warning that all objects have public view access. A table lists the objects in the bucket:

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;  
}
```

```

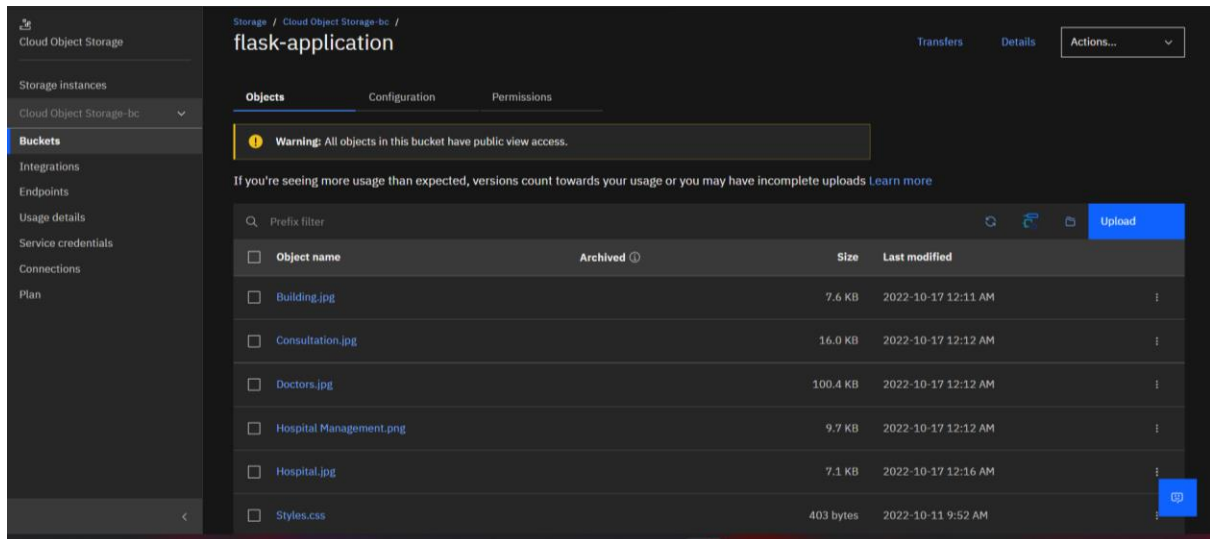
.leftcont {
    font-size: 17px;
}

.rightcont {
    font-size: 17px;
}

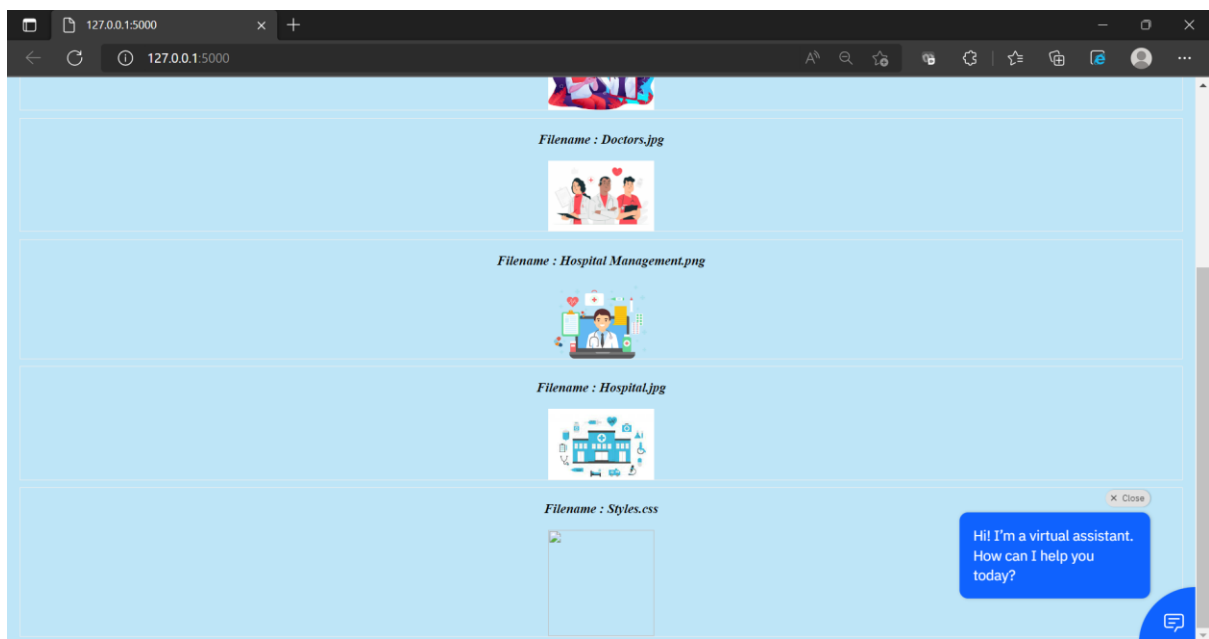
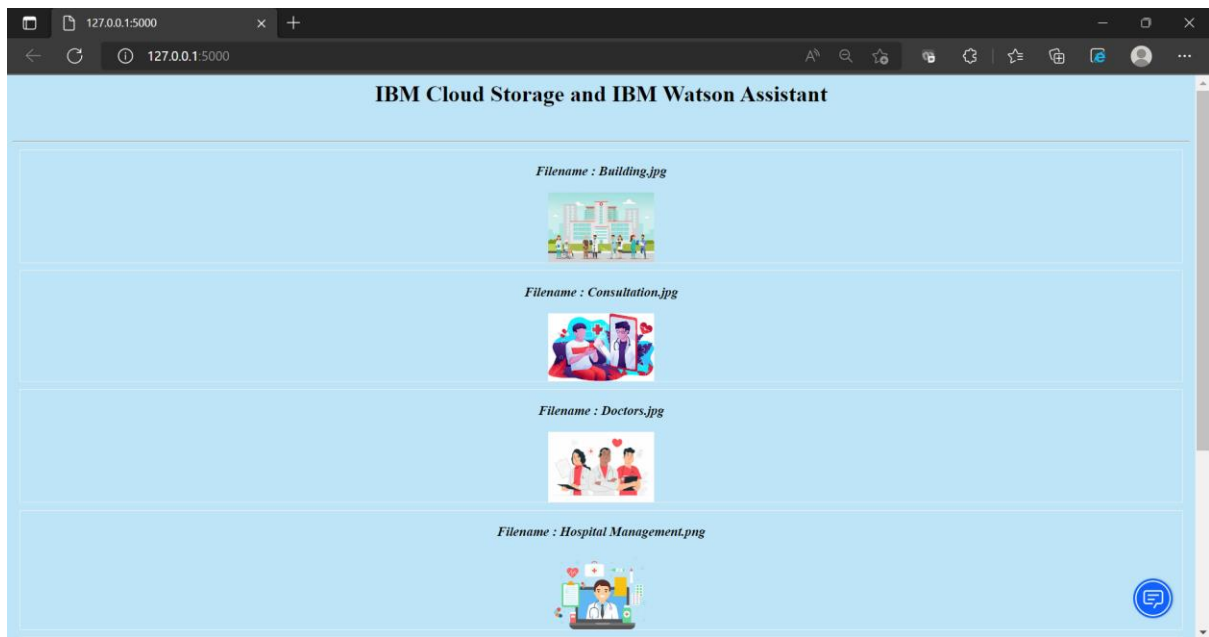
.othercont {
    display: flex;
}

```

## Output:



## Web Page:





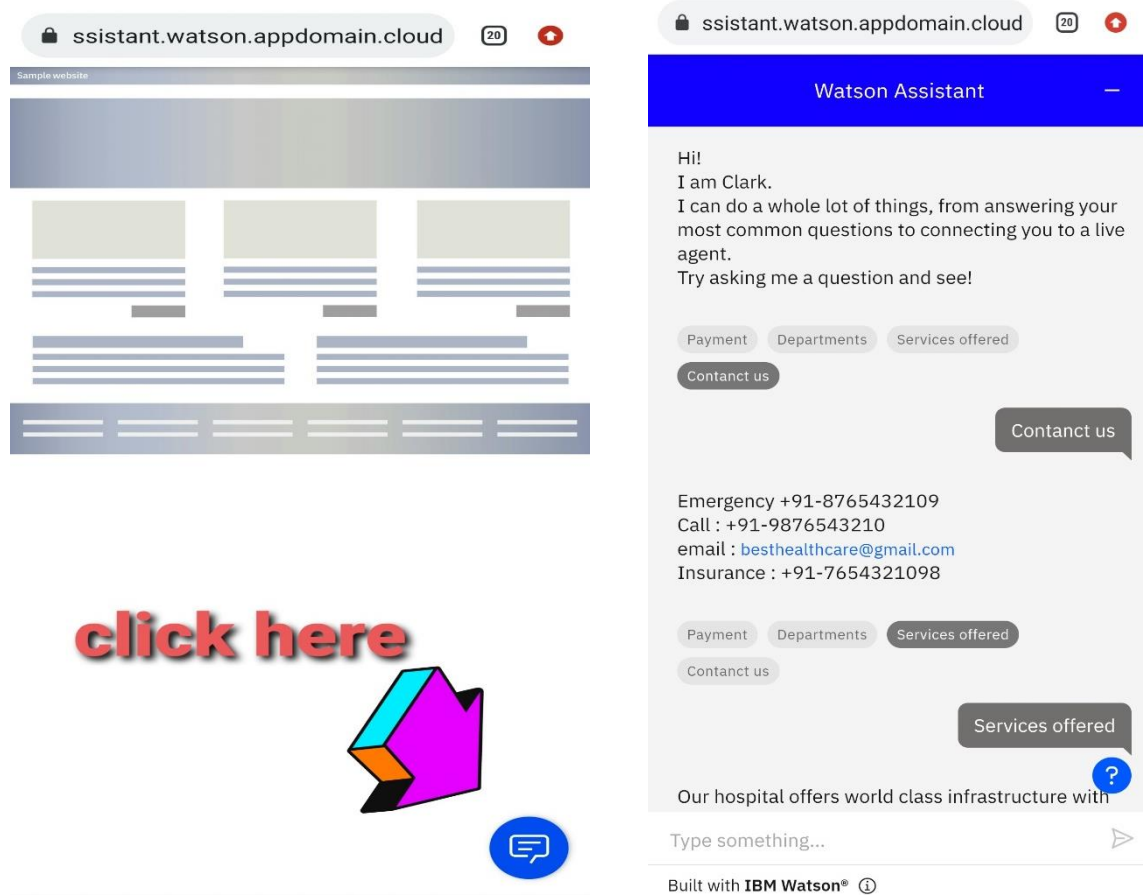
#### Question-4:

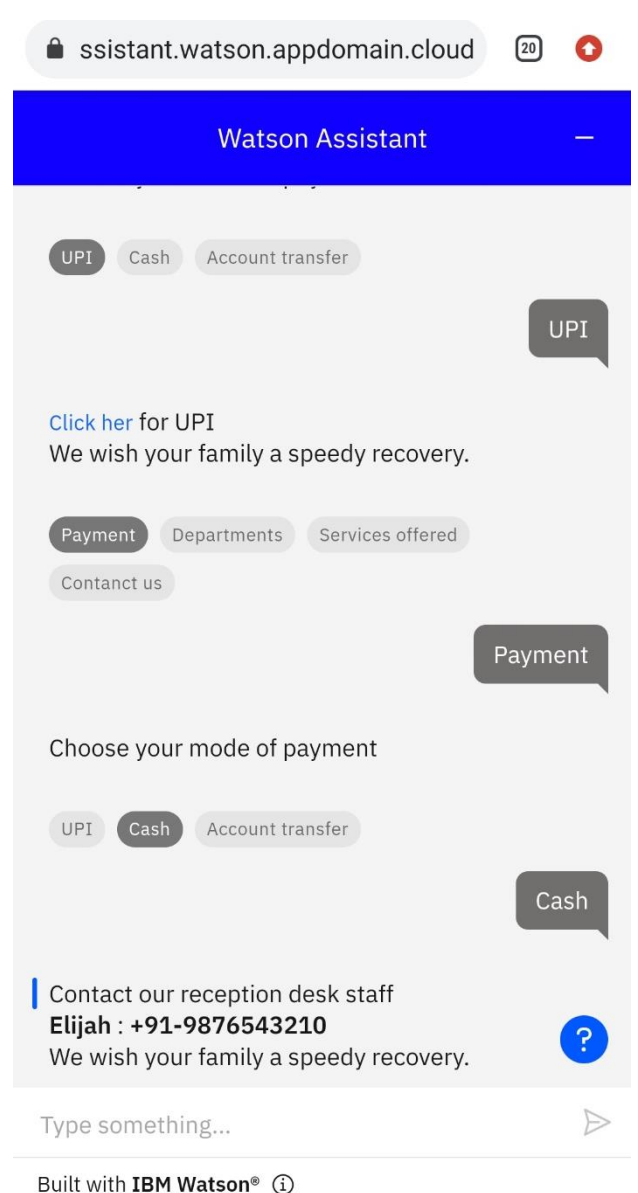
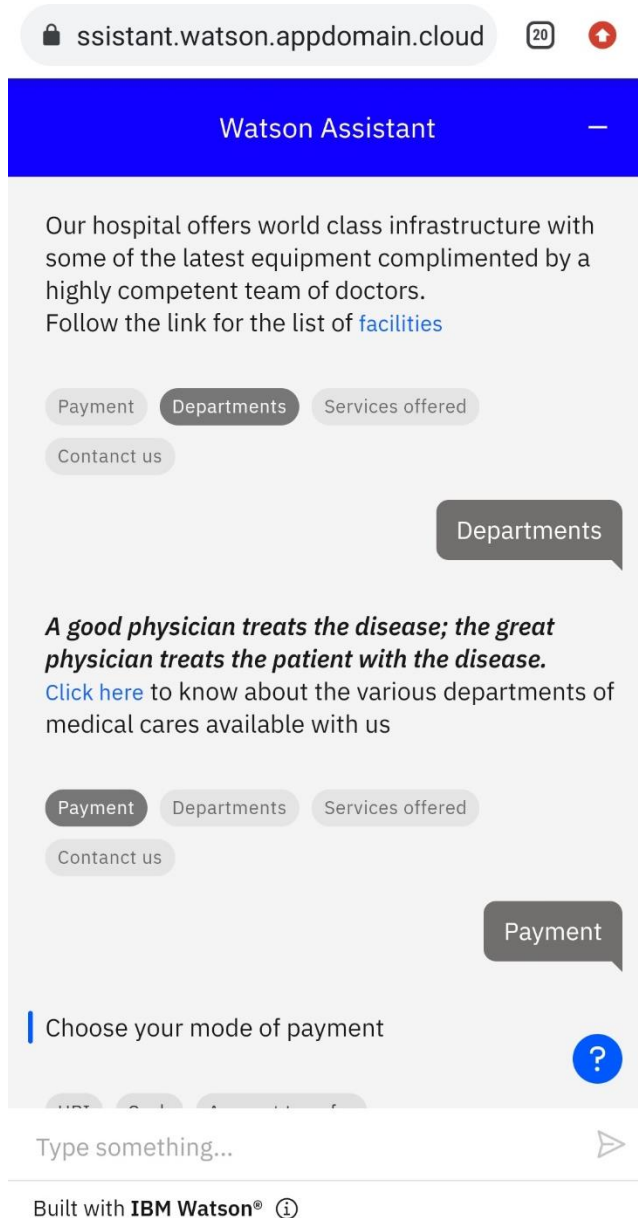
Design a chatbot using IBM Watson assistant for hospital. Ex: User comes with query to know the branches for that hospital in your city. Submit the web URL of that chat bot as a assignment.

#### 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/) for **Step 1** We wish your family a speedy recovery.

Go to action: What can you do?

3 Account transfer

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

Go to action: What can you do?

4 Cash

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 contains 'is', and the third contains 'UPI'. To the right of the table is a close 'X' button. Below the table, there is an 'Add condition +' button and a 'New condition group +' button. 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' (where 'Click her for' is a blue link) and 'We wish your family a speedy recovery.' At the bottom of the workspace is a bar with a speech bubble icon and the text 'Define customer response'. In the bottom right corner, there is 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)

5 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:

