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

```python
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="wprEMAxyjHj5sPl959wL_3HJczOWRbYn52XUuLrDSJON"

COS_INSTANCE_CRN="crn:v1:bluemix:public:cloud-object-
storage:global:a/602bcedcf9224f7b8c2e1aed60258292: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__)
```

```python
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:
```

```python
        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:

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>

<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: "440aaee1-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 %}

```html
    <div style="border: 1px solid #EFEFEF;margin:10px;">

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

        <img src="https://flask-application.s3.jp-tok.cloud-object-storage.appdomain.cloud/{{row}}"
width="150px"></td>

      </div>

    {% endfor %}

  </body>

</html>
```
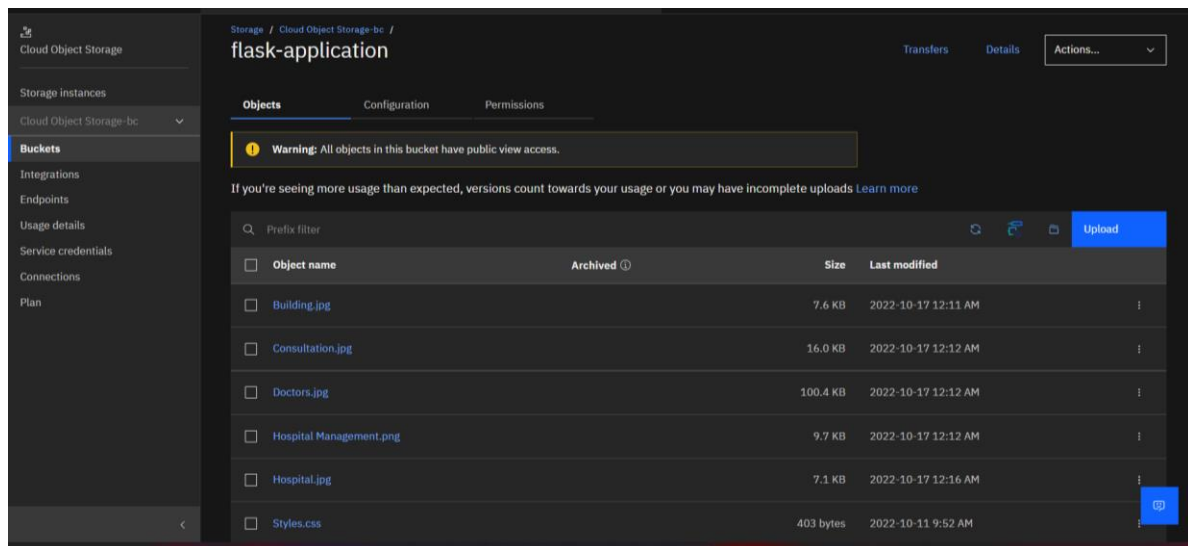
Output:

Question 3:

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

Solution:

Styles.css

```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;

}
```

```css
.leftcont {

    font-size: 17px;

}

.rightcont {

    font-size: 17px;

}

.othercont {

    display: flex;

}
```
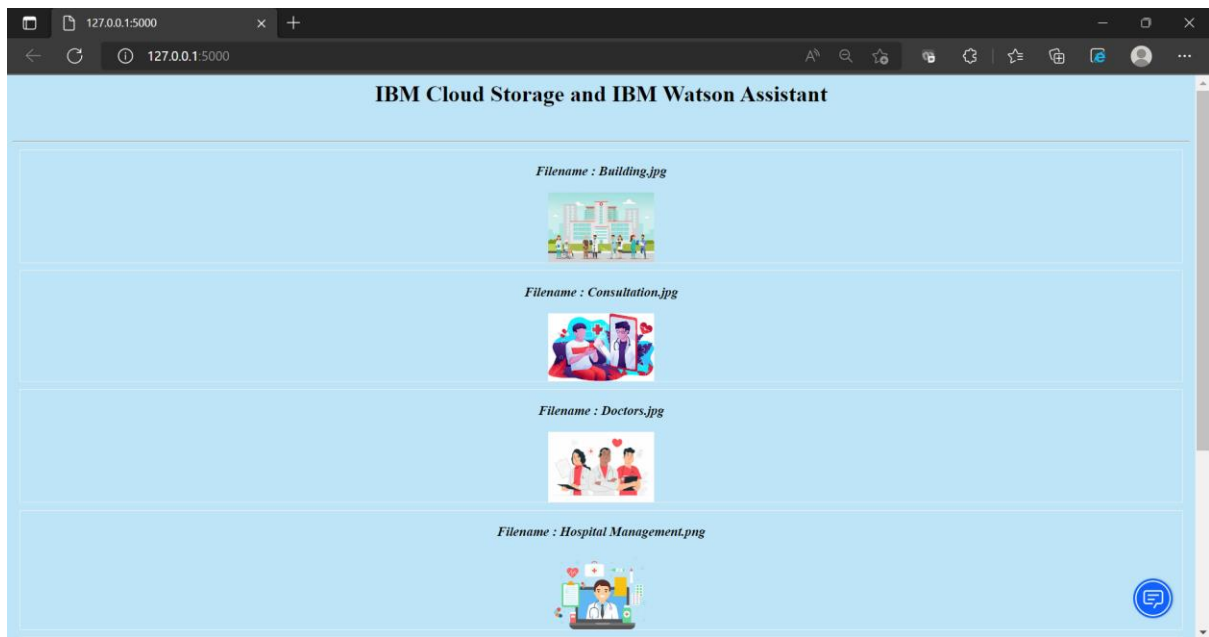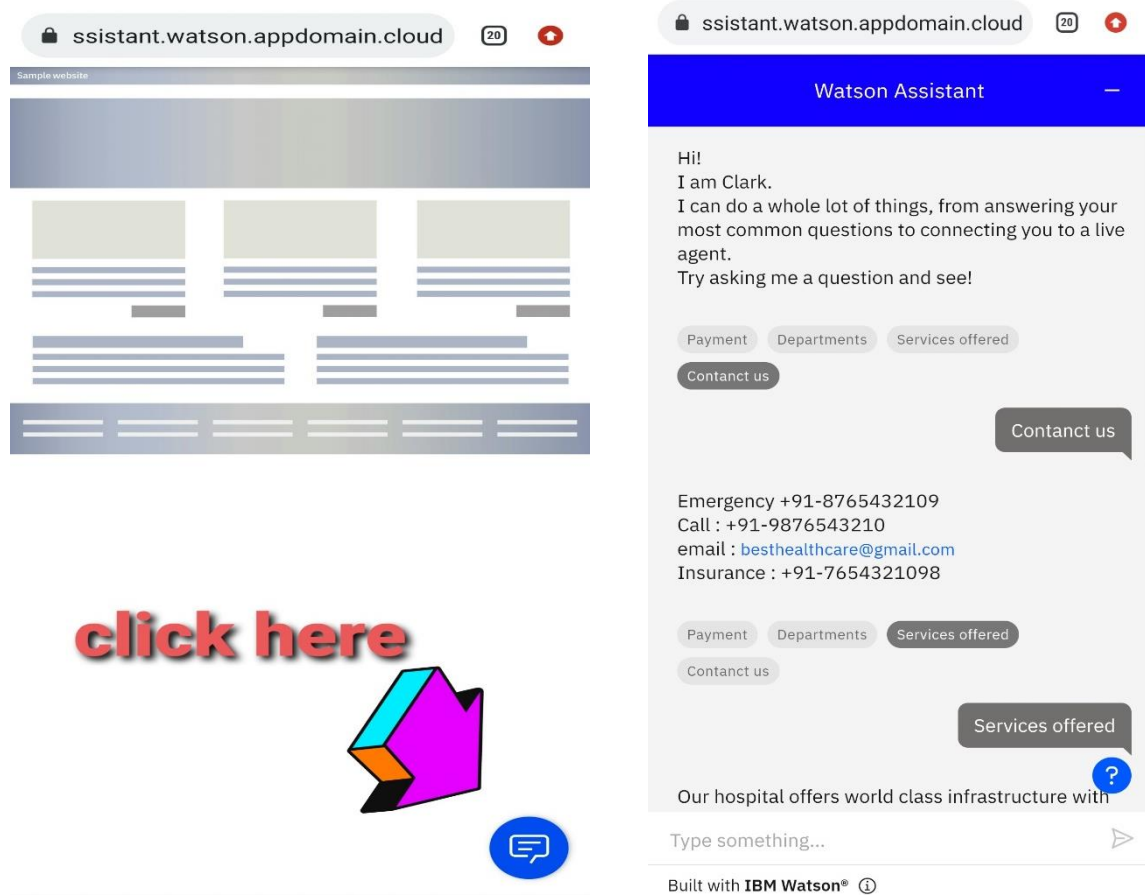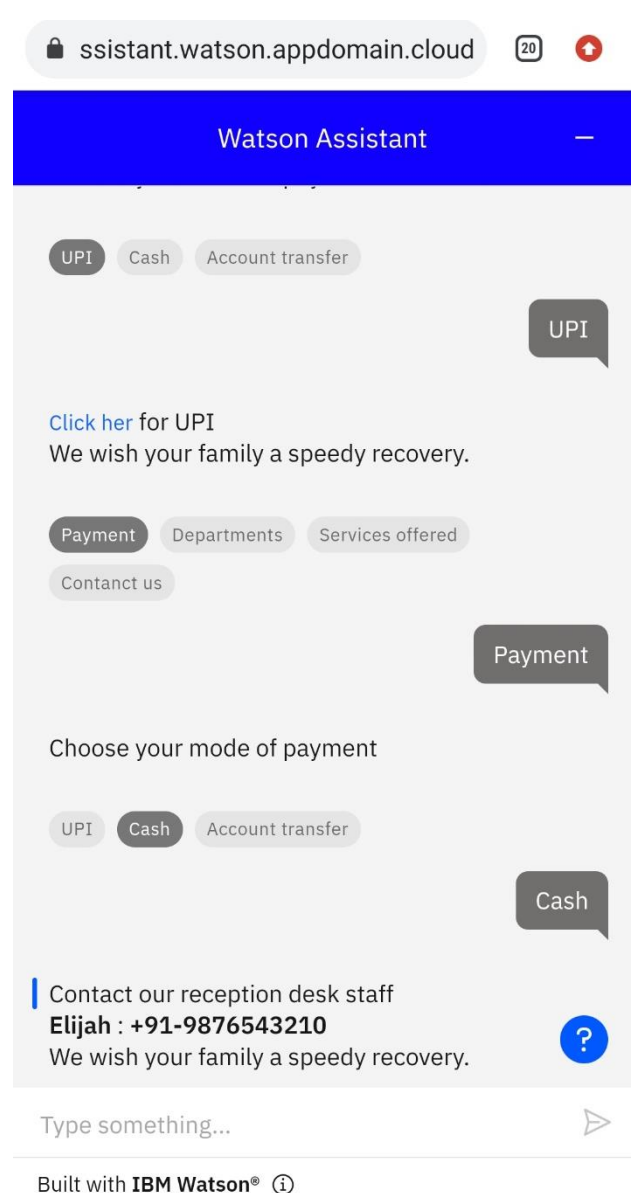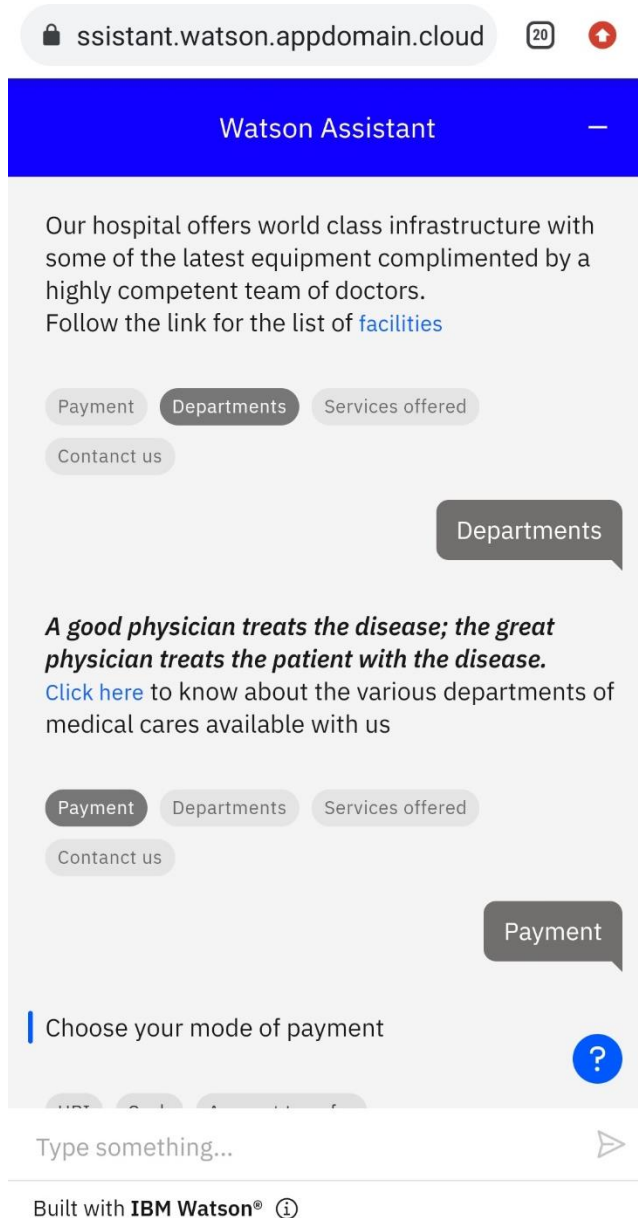
Output:
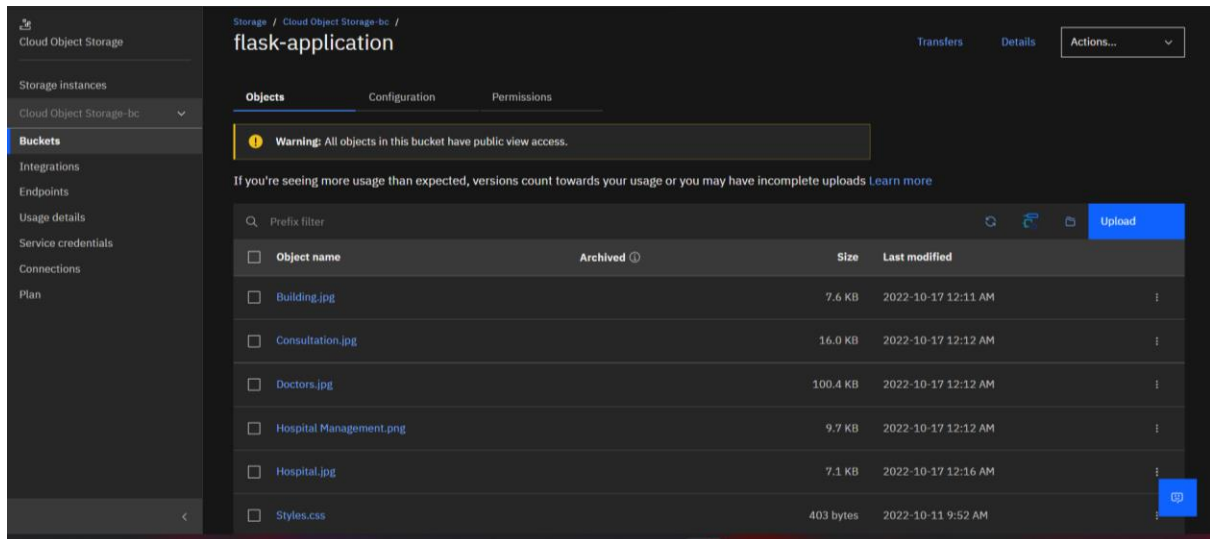
Web Page:
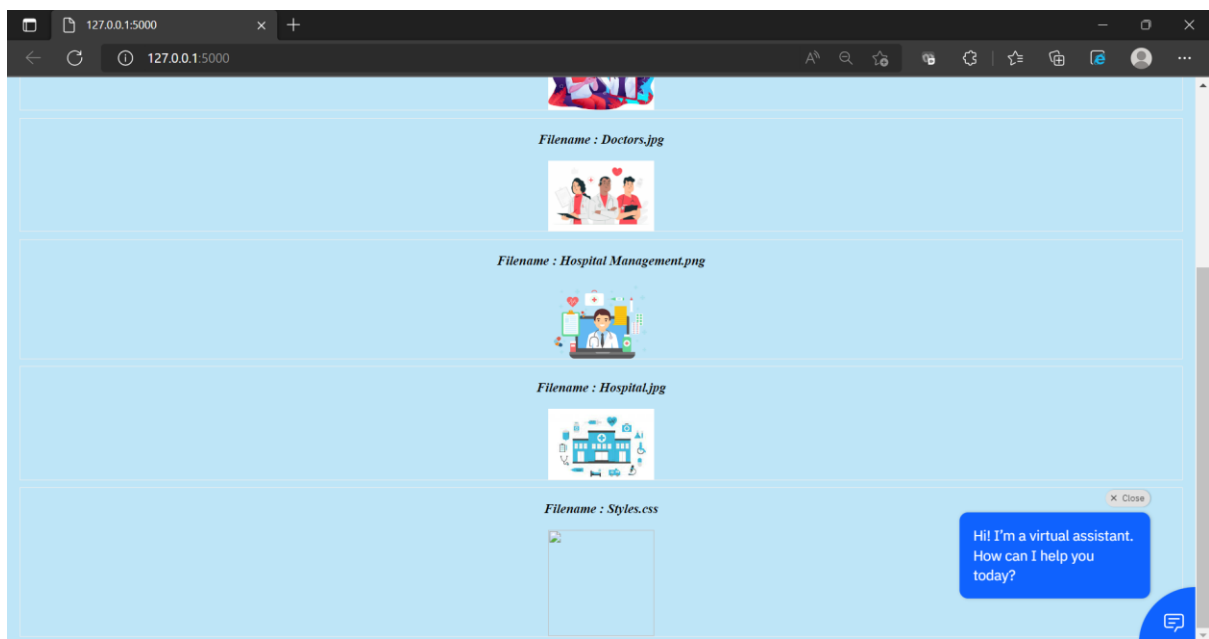
Question-4:

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:

Watson Assistant —

Our hospital offers world class infrastructure with some of the latest equipment complimented by a highly competent team of doctors.
Follow the link for the list of facilities

[Payment] [Departments] [Services offered]
[Contanct us]

Departments

A good physician treats the disease; the great physician treats the patient with the disease.
Click here to know about the various departments of medical cares available with us

[Payment] [Departments] [Services offered]
[Contanct us]

Payment

| Choose your mode of payment

❓

Type something... ⇨

Built with IBM Watson® ⓘ

Watson Assistant —

[UPI] [Cash] [Account transfer]

UPI

Click her for UPI
We wish your family a speedy recovery.

[Payment] [Departments] [Services offered]
[Contanct us]

Payment

Choose your mode of payment

[UPI] [Cash] [Account transfer]

Cash

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

❓

Type something... ⇨

Built with IBM Watson® ⓘ

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: "440aaee1-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   Steps in location

steps in What can you do

What can you do?

Conversation steps

1
This step has no content

Departments   Payment   + 2

↓ Continue to next step

2
1 == Payment

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@gmail.com...

↩ Re-ask previous step(s)

New step   +

Conditions:

Conditions in payment

- UPI
- Account transfer
- Cash

Conditions in What can you do
- Departments
- Payment
- Services offered
- Contact us

Output:

Filename : Consultation.jpg

Filename : Doctors.jpg

Filename : Hospital Management.png

Filename : Hospital.jpg

Filename : Consultation.jpg

Filename : Doctors.jpg

Filename : Hospital Management.png

Filename : Hospital.jpg