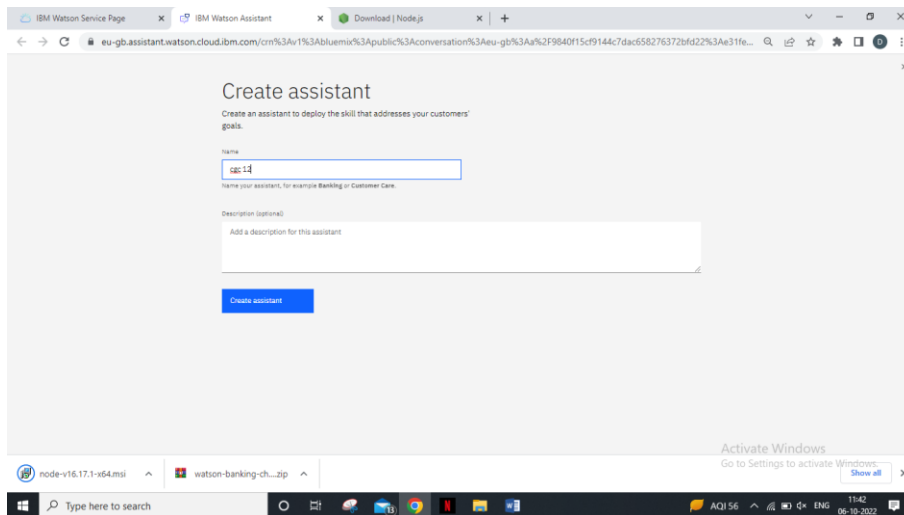


Institute of Computer Technology
B. Tech Computer Science and Engineering
Sub: Cognitive Computing (2CSE70E23)

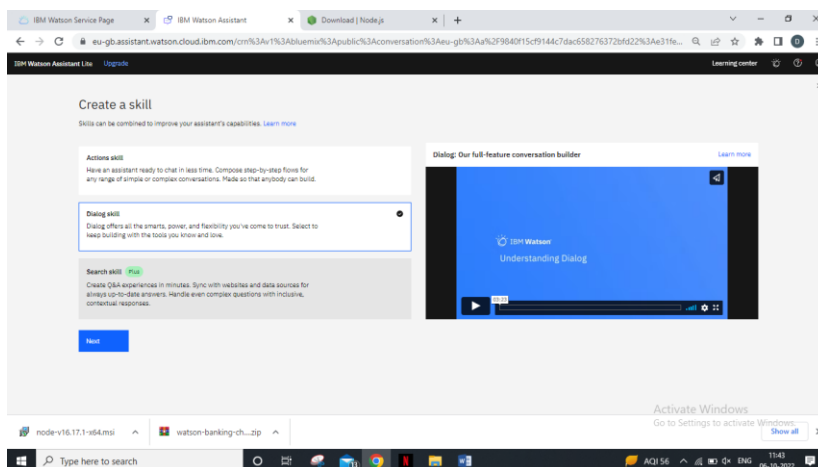
PRACTICAL 12: WATSON ASSISTANT (BANKING FAQs)

This exercise introduces you to the cognitive banking FAQ chatbot application. In this application, the IBM Watson Assistant flow is enhanced by adding capabilities that are provided by other IBM Watson APIs, such as Watson Natural Language Understanding and Watson Discovery. The objective is to design and implement a solution that integrates several Watson services by using the IBM Watson Node.js SDK.

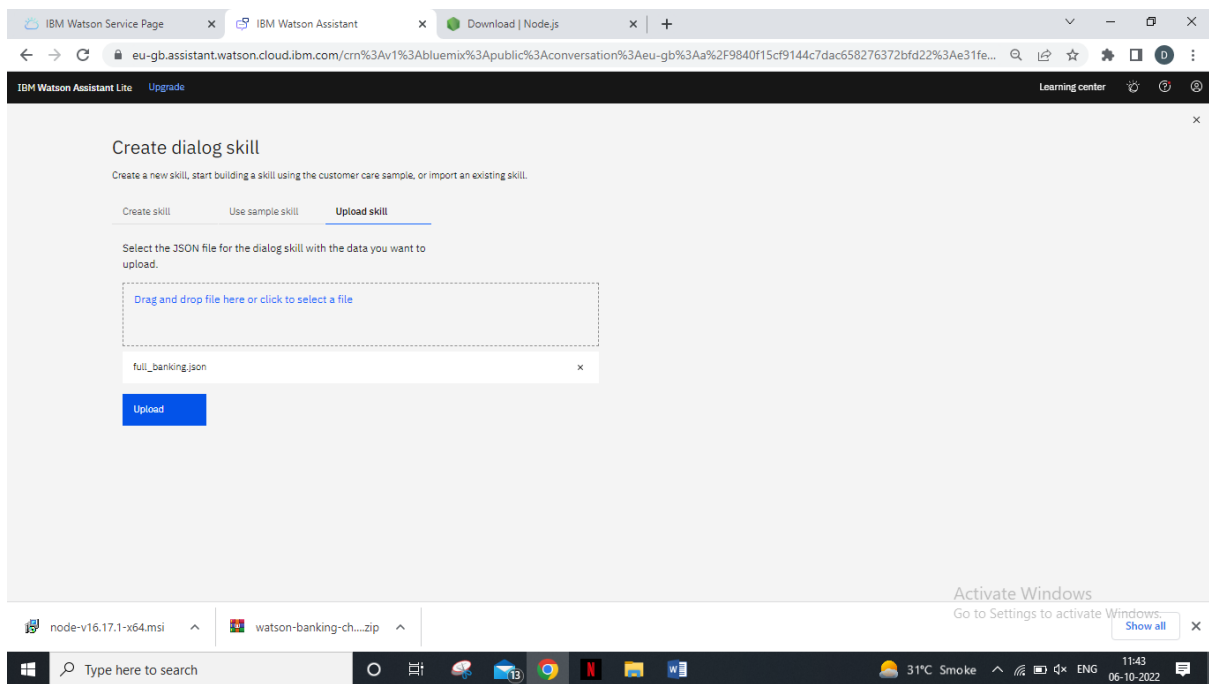
Open Watson Assistant and create a new assistant:



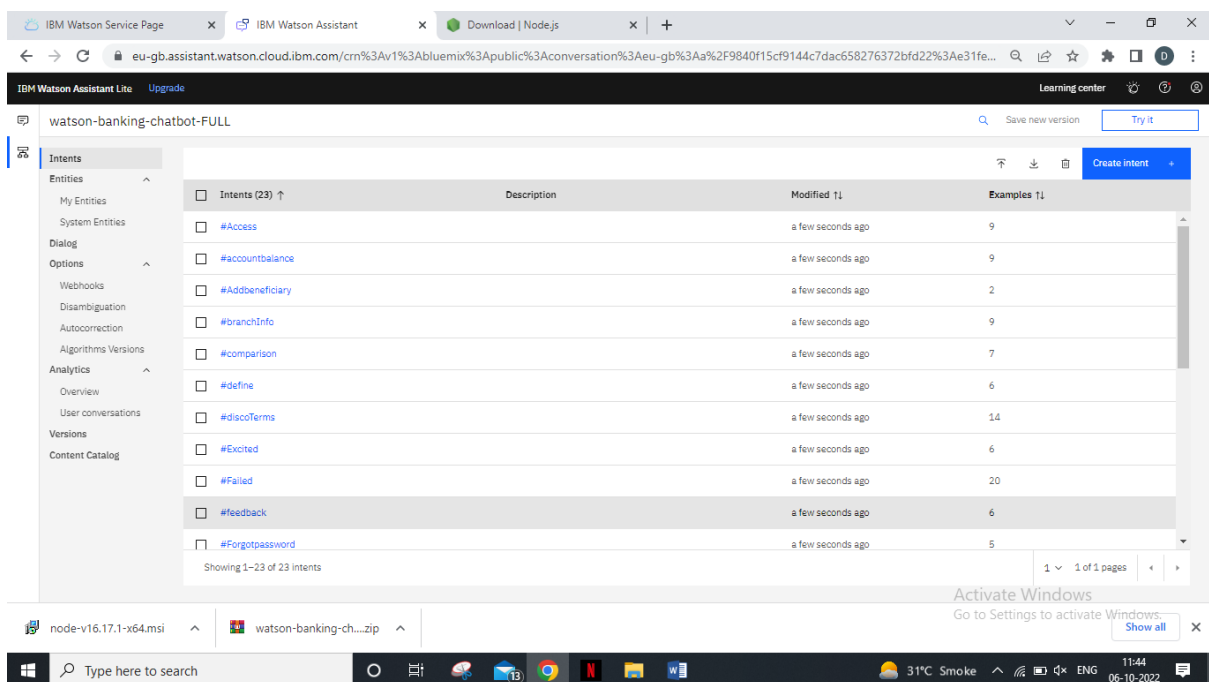
Create a new dialog skill:



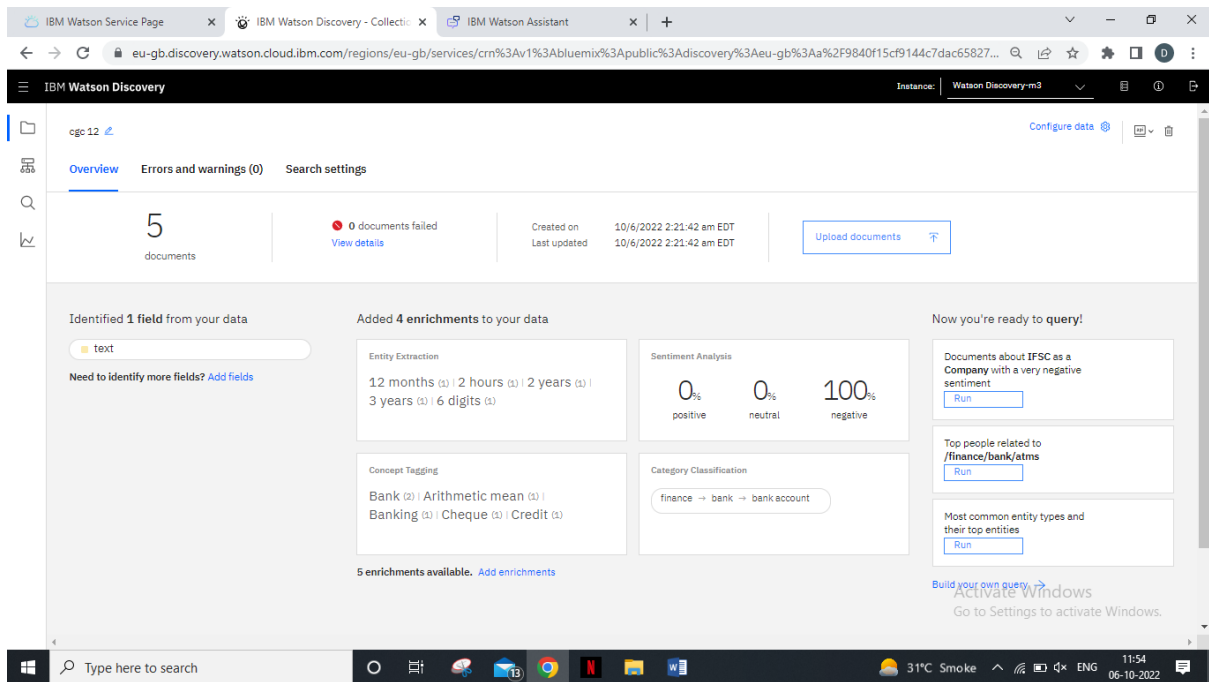
In upload skill, upload the json file:



You can see the entities, intents and dialogs which means that we have successfully uploaded the skill:

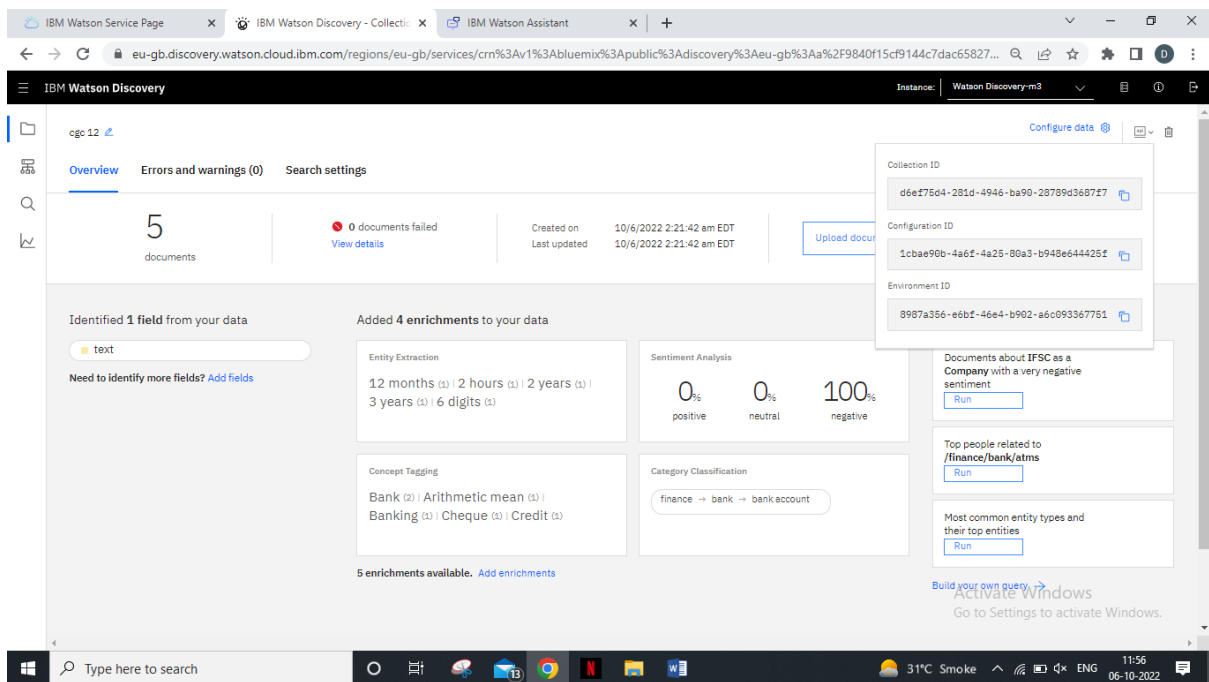


Now, open Watson Discovery and upload the documents in the new collection:



Collect the IDs and APIs and URLs of the different services:

DISCOVERY:



Collection id: d6ef75d4-281d-4946-ba90-28789d3687f7

Environment id: 8987a356-e6bf-46e4-b902-a6c093367751

URL: <https://api.eu-gb.discovery.watson.cloud.ibm.com/instances/4c803f0c-9591-4f7b-bede-d57c17937873>

API: tpwNjVRPaY4tHPfaYatS09o455FujeyseZnGtb0v0nZb

ASSISTANT:

Want to try the new Watson Assistant experience?

We have new features in store for you. You won't lose any of your work.

[Switch to new experience](#)

Skills

Skills contain the training to respond to your customer queries. Add skills to your assistant and then deploy to your channels.

[Create skill](#)

Skill Name	Type	Created	Updated
cgc11	Dialog — English (US)	Sep 28, 2022 11:47 AM	Sep 28, 2022 1:10 PM
cgc10	Dialog — English (US)	Sep 22, 2022 11:55 AM	Sep 22, 2022 12:39 PM
watson-banking-chatbot-FULL	Dialog — English (US)	Oct 6, 2022 11:43 AM	Oct 6, 2022 11:43 AM

Activate Windows. Go to Settings to activate Windows.

URL: <https://api.eu-gb.assistant.watson.cloud.ibm.com/instances/e31fe4d5-7811-4d9e-a583-2bff55ec8388>

API: IwJHNVACmwkwIV4KM0LKEuR81DrZf1Wh_T148YUWfkiB

SKILL ID: 8378505c-1785-41c0-9c7f-234d9d910c57

Skill details

Skill name: [watson-banking-chatbot-FULL](#)

Skill ID: [8378505c-1785-41c0-9c7f-234d9d910c57](#)

Legacy v1 workspace URL: <https://api.eu-gb.assistant.watson.cloud.ibm.com/instances/e31fe4d5-7811-4d9e-a583-2bff55ec8388/v1/workspaces/8378505c-1785-41c0-9c7f-234d9d910c57/message>

Service credentials

Service credentials name: [Auto-generated service credentials](#)

API key: [IwJHNVACmwkwIV4KM0LKEuR81DrZf1Wh_T148YUWfkiB](#)

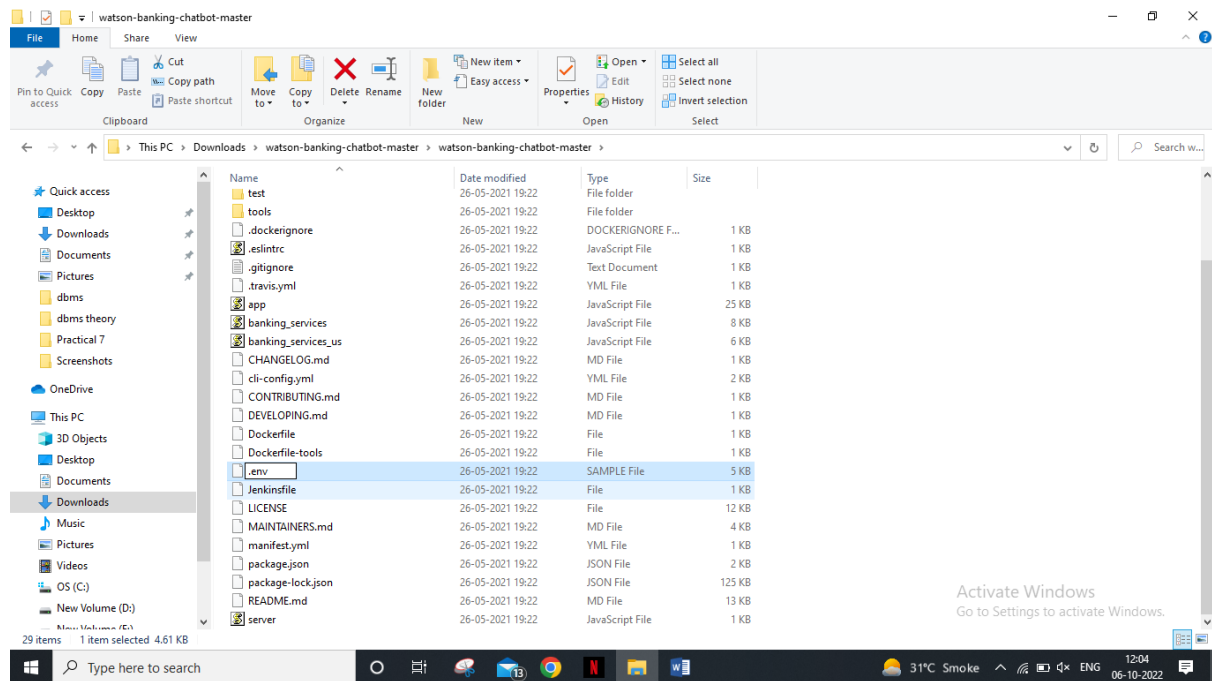
Activate Windows. Go to Settings to activate Windows.

NLU:

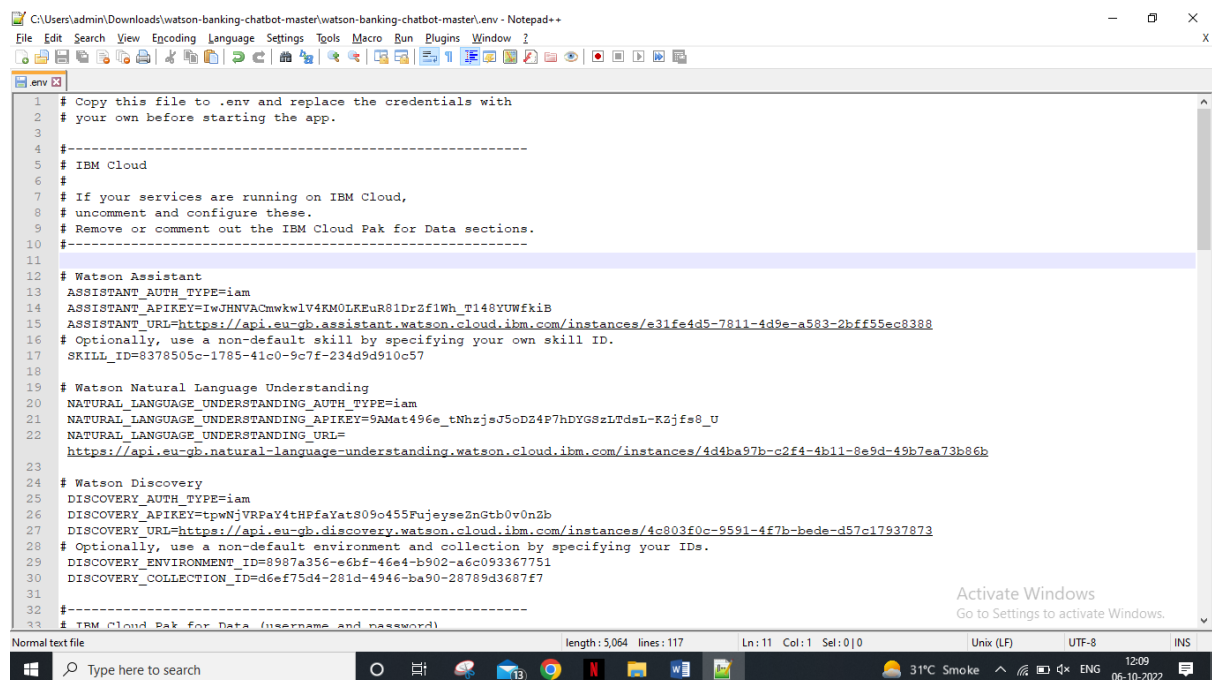
API: 9AMat496e_tNhzjsJ5oDZ4P7hDYGSzLTdsL-KZjfs8_U

URL: <https://api.eu-gb.natural-language-understanding.watson.cloud.ibm.com/instances/4d4ba97b-c2f4-4b11-8e9d-49b7ea73b86b>

Now, change env.sample to .env



Open that file and add the details like IDs and URLs and APIs that you just copied:



Open GitBash in the same folder and run these commands:

The first screenshot shows the command prompt with the directory `admin@DESKTOP-DD1433G MINGW64 ~/Downloads/watson-banking-chatbot-master/watson-banking-chatbot-master`. The user runs `npm install`, which outputs various warnings about deprecated packages and adds 409 packages. The second screenshot shows the user running `npm start`, which outputs the chatbot's configuration, including the SKILL_ID, port (3000), and environment details.

```

admin@DESKTOP-DD1433G MINGW64 ~/Downloads/watson-banking-chatbot-master/watson-banking-chatbot-master
$ npm install
npm WARN old lockfile
npm WARN old lockfile The package-lock.json file was created with an old version of npm,
npm WARN old lockfile so supplemental metadata must be fetched from the registry.
npm WARN old lockfile This is a one-time fix-up, please be patient...
npm WARN old lockfile
npm WARN deprecated flat@4.1.0: Fixed a prototype pollution security issue in 4.1.0, please upgrade to 4.1.1 or 4.5.0.1.
npm WARN deprecated mkdirp@0.5.3: Legacy versions of mkdirp are no longer supported. Please update to mkdirp 1.x. (Note that the API surface has changed to use Promises in 1.x.)
npm WARN deprecated debug@4.1.1: Debug versions >=3.2.0 <3.2.7 || >=4 <4.3.1 have a low-severity ReDos regression when used in a Node.js environment. It is recommended you upgrade to 3.2.7 or 4.3.1. (https://github.com/visionmedia/debug/issues/797)
npm WARN deprecated debug@4.1.1: Debug versions >=3.2.0 <3.2.7 || >=4 <4.3.1 have a low-severity ReDos regression when used in a Node.js environment. It is recommended you upgrade to 3.2.7 or 4.3.1. (https://github.com/visionmedia/debug/issues/797)
npm WARN deprecated debug@3.2.6: Debug versions >=3.2.0 <3.2.7 || >=4 <4.3.1 have a low-severity ReDos regression when used in a Node.js environment. It is recommended you upgrade to 3.2.7 or 4.3.1. (https://github.com/visionmedia/debug/issues/797)
npm WARN deprecated istanbul@0.4.5: This module is no longer maintained, try this instead:
npm WARN deprecated Visit https://istanbul.js.org/integrations for other alternatives.

added 409 packages, and audited 410 packages in 1m

21 packages are looking for funding
  run 'npm fund' for details

19 vulnerabilities (5 moderate, 10 high, 4 critical)

To address issues that do not require attention, run:
  npm audit fix

To address all issues, run:
  npm audit fix --force

Run 'npm audit' for details.
npm notice
npm notice New minor version of npm available! 8.15.0 -> 8.19.2
npm notice Changelog: <https://github.com/npm/cli/releases/tag/v8.19.2>
npm notice Run 'npm install -g npm@8.19.2' to update!
npm notice

admin@DESKTOP-DD1433G MINGW64 ~/Downloads/watson-banking-chatbot-master/watson-banking-chatbot-master
$

Activate Windows
Go to Settings to activate Windows.

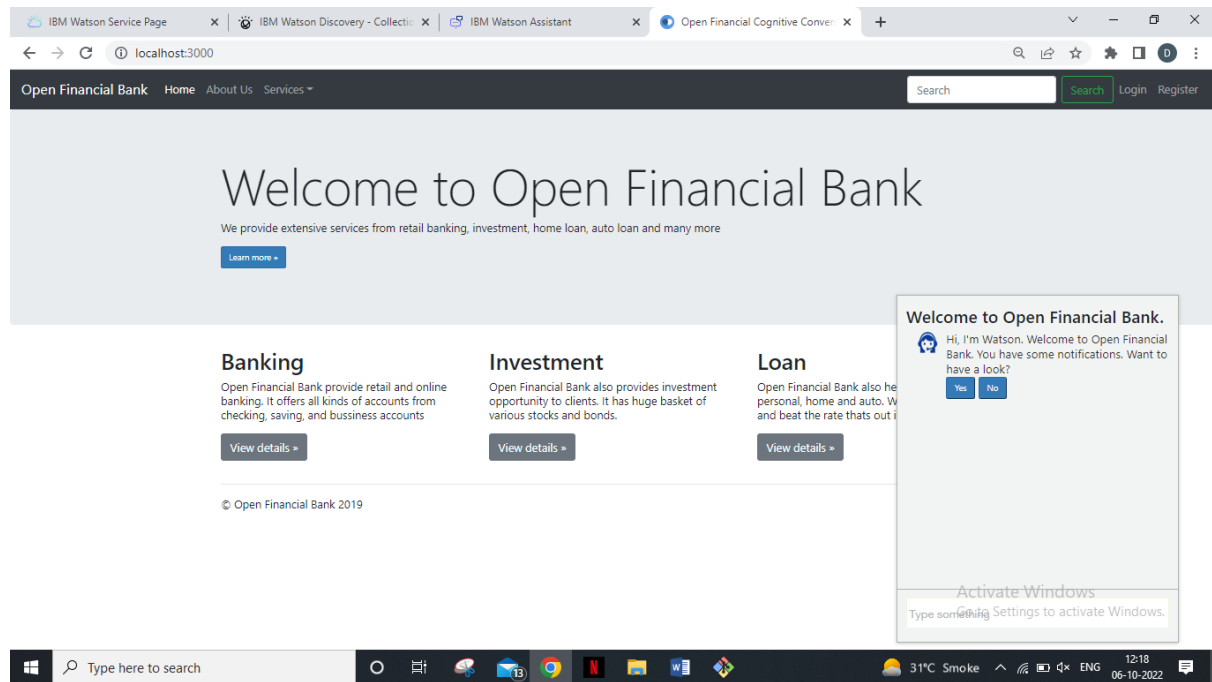
admin@DESKTOP-DD1433G MINGW64 ~/Downloads/watson-banking-chatbot-master/watson-banking-chatbot-master
$ npm start

> watson-banking-chatbot@0.0.1 start
> node server.js

locale = en_US
Using configured SKILL_ID: 8378505c-1785-41c0-9c7f-234d9d910c57
Watson Assistant is ready!
Server running on port: 3000
environments[0]: {
  "environment_id": "system",
  "name": "Watson System Environment",
  "description": "Shared system data sources",
  "read_only": true
}
environment: {
  "environment_id": "system",
  "name": "Watson System Environment",
  "description": "Shared system data sources",
  "read_only": true
}
environment: {
  "environment_id": "8987a356-e6bf-46e4-b902-a6c093367751",
  "name": "byod",
  "description": "",
  "created": "2022-08-10T06:19:17.309Z",
  "updated": "2022-08-10T06:19:17.309Z",
  "read_only": false
}
Found Discovery environment using DISCOVERY_ENVIRONMENT_ID.
{
  environment_id: '8987a356-e6bf-46e4-b902-a6c093367751',
  name: 'byod',
  description:
    created: '2022-08-10T06:19:17.309Z',
    updated: '2022-08-10T06:19:17.309Z',
    read_only: false
}
Found Discovery collection using DISCOVERY_COLLECTION_ID.
{
  collection_id: 'd6ef75d4-281d-4946-ba90-28789d3687f7',
  name: 'cgic 12',
  configuration_id: '1cbae90b-4a6f-4a25-80a3-b948e644425f',
  language: 'en',
  status: 'active',
  description: null,
  created: '2022-10-06T06:21:42.178Z',
  updated: '2022-10-06T06:21:42.178Z'
}

```

Port number 3000 was set in .env file. Go to your browser and search localhost:3000



Explore the chatbot according to the uploaded documents:

