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Step 1 of 1

Lab 4: Adding Discovery to the Chatbot: Part-1

Objective:

- How to integrate **Watson Discovery** collection with the chatbot.

In the previous lab, we defined a basic chatbot that can offer hard-coded responses to some chitchat interactions and intents. However, course catalog is too big for us to provide specific course recommendations directly in the response section of a node. We will use Cloud Functions to do the same.

1. Open a terminal window by using the menu in the editor: **Terminal > New Terminal**.

2. Go to the project home directory.

```
cd /home/project
```

3. Run the following command to Git clone the project directory from the below clone URL:

```
git clone https://github.com/ibm-developer-skills-network/ncehu-AppliedAI_6_Module4.git
```

4. At this point, you should see a project **ncehu-AppliedAI_6_Module4** listed in the left sidebar of Theia IDE. Click on the ncehu-AppliedAI_6_Module4 folder, navigate to **serverless.yml**.

5. In **serverless.yml** replace the value of `YOUR_USERNAME` to " **apikey**", `YOUR_DISCOVERY_PASSWORD` to the **API key** from your Discovery service. Similarly, replace the values of `ENVIRONMENT_ID` and `COLLECTION_ID` with the values obtained earlier above. Replace the value of `YOUR_DISCOVERY_URL` with the **url** we obtained earlier. **URL** is location specific.

   Make sure to **press control + S**(Windows) **or command + S**(MacOS) to save the configuration.

   If you want you may spend some time investigating the **CourseAdvisor.js** code. In particular, have a look at line 97. The description field of our collection was enriched with Watson insights and we can query on **concepts** and **keyword**. Since the **keyword extraction** enrichment identifies content typically used when indexing data, generating tag clouds, or searching, we will run a query on **keyword** to recommend a course based on the user input.

6. Change to project directory

```
cd ncehu-AppliedAI_6_Module4
```

7. Login to the ibmcloud with your email and enter your password when prompted.

```
ibmcloud login --no-region -u YOUR_IBMCLOUD_EMAIL
```

   Note: If you get the following **error** message, " **FAILED Unable to authenticate. You are using a federated user ID"** , you can either

   - Create an IBM Cloud account with your personal email (not an ibm.com) and try again or
   - Create an API key using your federated IBM Cloud account. [Create user key]https://cloud.ibm.com/docs/account?topic=account-userapikey) and **copy the following lines below** and replace **YOUR_APIKEY** with your actual **API Key**.

```
ibmcloud login --apikey YOUR_APIKEY
```

8. Run the following commands to set the url, region and owner.

```
export region=$(ibmcloud account orgs | sed -n '6 p'| cut -d" " -f4)
export owner=$(ibmcloud account orgs | sed -n '6 p'| cut -d" " -f1)
export url=$(echo "https://api.region.cf.cloud.ibm.com"| sed "s/region/${region}/")
```

9. Run the following command to set the target region and owner.

```
ibmcloud target --cf-api $url -r $region -o $owner
```

10. Create account space if it doesn't already exist.

```
ibmcloud account space-create lab4
```

    If the space already exists, this line would throw an error.

11. Target the account space you just created.

```
ibmcloud target -s lab4
```

12. Install node package `serveless`

```
npm install -g -s serverless@latest
```

13. Install the openwhisk plugin that's required by serverless.

```
npm install serverless-openwhisk --save-dev -s
```

12. Run the following command to generate Openwhisk authentication key which is required by serverless.

```
ibmcloud wsk property get --auth
```

13. Replace **REGION** with **region** you obtained above.

```
ibmcloud fn list --apihost REGION.functions.cloud.ibm.com
```

14. Deploy serverless

```
serverless deploy
```

15. List function now. You will see the `connectDiscovery` listed in the `actions` list. `ibmcloud fn list`

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Changelog

Date	Version	Changed by	Change Description
2021-07-07	2.0	Shubham	Migrated Lab to Markdown and added to course repo in GitLab

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