Meet Agrawal
Topic - Cloud

Assignment - 3 - PoC Document

Basic Setup -

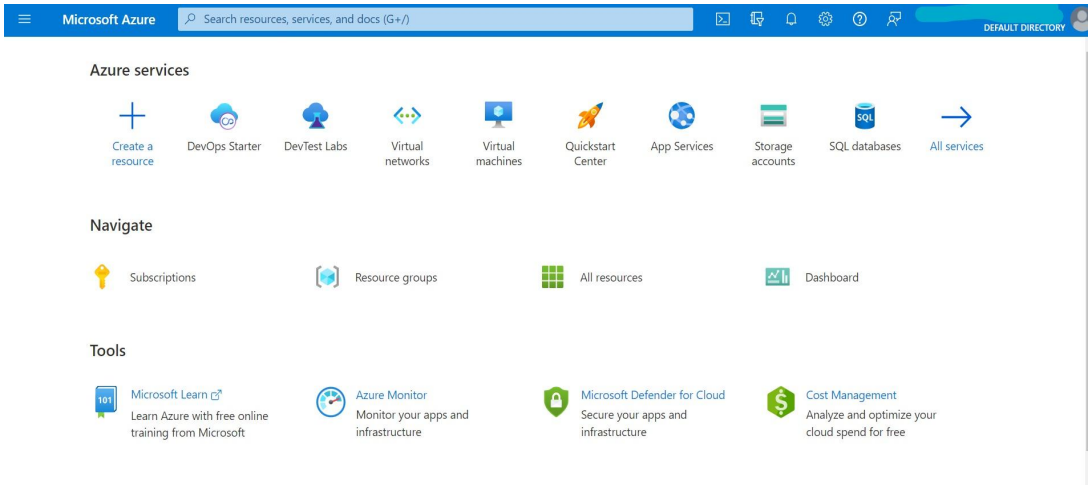
Activating Student Credits for using Azure -

Solve the assignment by activating Azure for Students using your college email id
Use the link - https://azure.microsoft.com/en-in/free/students/

Making account on Azure -

1) Register with a gmail account (not the student account - normal gmail account)
2) Then Click Link above and sign In again
3) You will be redirected to a form where you need to enter your college email
4) Accept confirmation email on your college account and you are all set with the student credits.

Final Screen once done with the setup looks -

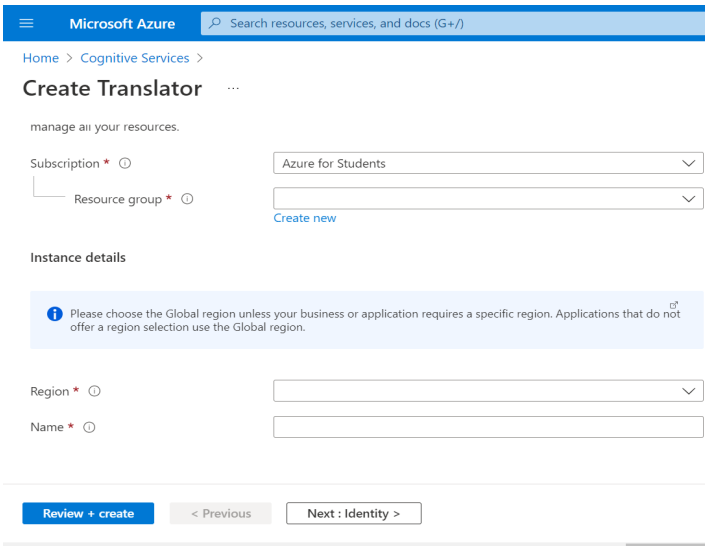


Setting up Node JS :

You need Node JS to solve this assignment
Watch the video to setup if you haven't already done -
https://youtu.be/__7eOCxJyow

Steps to follow :

1) Move to your cloud portal on azure
   https://portal.azure.com



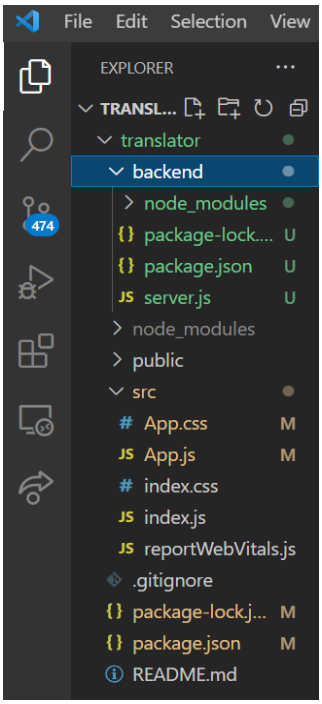
2) Create a Translator Resource
   Add in relevant details to the fields

Can refer the following link to create a Translator Resource - https://docs.microsoft.com/en-in/azure/cognitive-services/translator/translator-how-to-signup#create-your-resource

3) Once the translator is deployed we move ahead to making our application

4) Create a React JS application using the command -
   " `npx create-react-app translator` "

5) Once the dependencies are downloaded move in to the application folder
   Remove out test files from the src folder
   Run the following command to start your React App
   " `npm start` "



File System :

1) Create a backend folder
2) Run " `npm init` " to initialize node in the folder
3) Make a file " `server.js` "
4) Run " `npm install axios uuid express cors` " to install the relevant packages

6) The front-end consists of a `<form>`
This form has two input fields -

For the Input String -

```
<input type="text" name="input" onChange={handleChange}/>
```

For the drop-down menu of languages -

```
<select name="language" id="tag" onChange={handleChange}>
    <option></option>
</select>
```

7) Making the language drop-down menu to choose from -
Hint : Make a call to the API from the React JS application in `useEffect()`
Refer the link for API to get all supported languages in Azure Translator
https://docs.microsoft.com/en-us/azure/cognitive-services/translator/reference/v3-0-languages#examples
For form handling in ReactJS - https://reactjs.org/docs/forms.html

8) Need to make a `handleChange` function for maintaining the form state
Need to make a `handleSubmit` function for calling the NodeJS API
Can use `fetch()` or `axios` to make call to the API

9) Moving to developing the backend application
We need an API which can help us to identify the language the string is in and also translate it.

10) The below link provides the code for making such an API call
Reference for making API call in NodeJS
https://docs.microsoft.com/en-us/azure/cognitive-services/translator/quickstart-translator?tabs=nodejs#detect-language

11) We need to make certain changes -
For the string that is to be translated is changed to - `req.body.input`
For the language the string is to be changed in is change to - `req.body.language`
NOTE : These are the parameters sent to the API from the front-end application

12) Send the response to the front-end using - `res.json()`
Display this response on the front-end at relevant locations

NOTE : Styling of the front-end is optional. Functioning should be correct.