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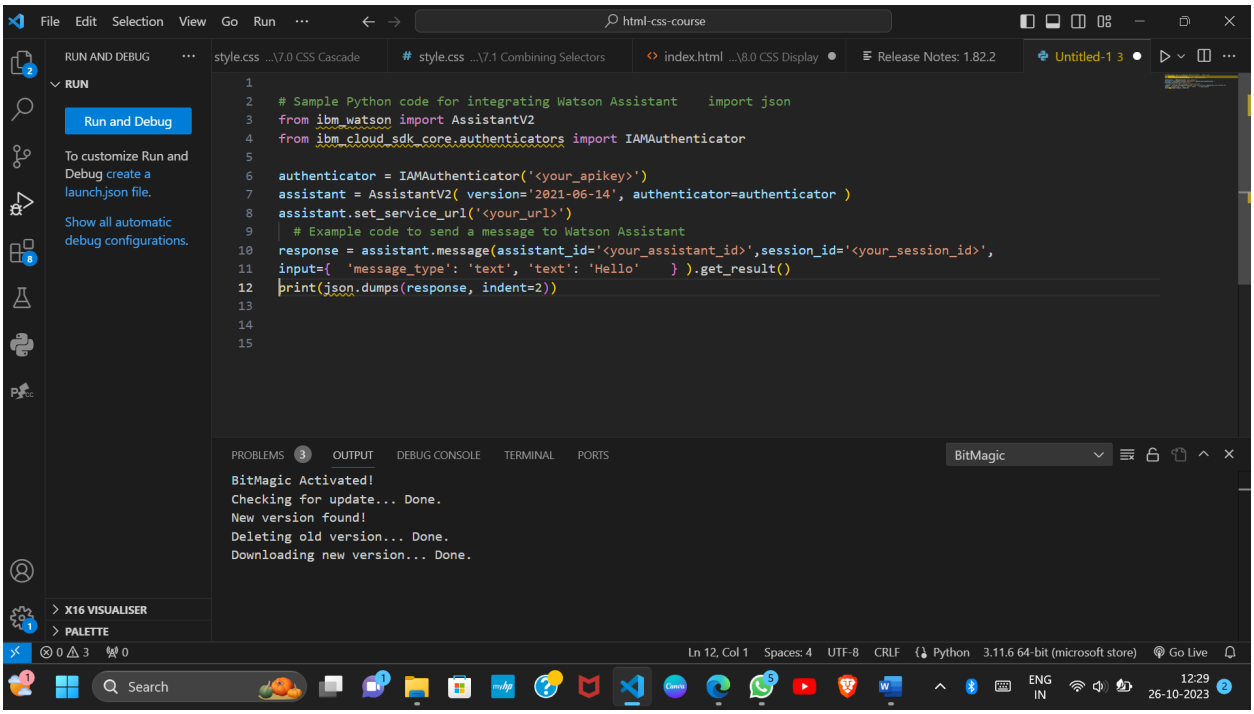
CAD101 Cloud Application Development -Group 1

Project 6: Chatbot Deployment with IBM Cloud Watson Assistant

Phase 4: Development Part 2

1. Integrate Watson Assistant with the application :

- Retrieve the necessary credentials from IBM Cloud for your Watson Assistant service.
- Update the application's code to use the credentials. You will need the API key and URL to authenticate and interact with the Watson Assistant service.



2. Test the integration :

- Run the application and test the chatbot functionality. Ensure that the application properly sends and receives messages from the Watson Assistant service.
- Test various conversation flows and make sure that the responses are as expected.

3. Deploy the application :

- Choose an appropriate deployment option based on the application's requirements. IBM Cloud provides various options for deploying applications, including Cloud Foundry, Kubernetes, and more.
- Deploy the application to the selected environment and ensure that the necessary resources are provisioned.

4. Monitor the application :

- Set up monitoring for the application to track its performance and usage.
- Monitor the chatbot's interactions to identify any issues or areas for improvement.
- Ensure that the application is functioning correctly and delivering a seamless experience to users.

5. Maintenance and updates :

- Regularly maintain and update the application to incorporate new features and improvements.
- Keep the Watson Assistant service updated with the latest information and conversation flows.
- Monitor user feedback and make necessary adjustments to enhance the chatbot's performance and user experience.

6. Create a Web Application :

- You can use any framework or technology of your choice, such as Node.js, Python, Java, or even simple HTML/CSS/JavaScript.
- For this example, let's assume you're using a basic HTML file with JavaScript to integrate the chatbot.

7. Get IBM Cloud Watson Assistant Credentials :

Log in to your IBM Cloud account.

- Navigate to the Watson Assistant service instance that you created earlier.
- Go to the "Service credentials" section and create new credentials if you haven't already.

8. Integrate Watson Assistant in your Web Application :

Add the Watson Assistant SDK to your HTML file. You can use the following script tag:

```
#html
<script src="https://webchat.global.assistant.watson.appdomain.cloud/LoadWatsonAssistantChat. js"></script>
    ```

  - Initialize the chatbot with your Watson Assistant credentials and options:

    ```javascript
    var chatbotIntegration = function() {        var options = {
        integrationID: 'YOUR_INTEGRATION_ID', // Replace with your integration ID
        region: 'YOUR_REGION', // Replace with your region, e.g., ussouth
      };

      window.loadWatsonAssistantChat(options).then(function(instance)
{
        instance.render();
      });
    };
    ```
```

## 9. Test the Integration :

- Open your web application in a browser.
- Ensure that the chatbot is loading correctly and that you can communicate with it.

## 10. Customize and Train the Chatbot :

- Access your Watson Assistant service instance.
- Create or import a skill to start building your chatbot's responses.
- Train the chatbot using appropriate dialogs, intents, and entities to handle user queries effectively.

## 11. Deploy the Web Application :
```

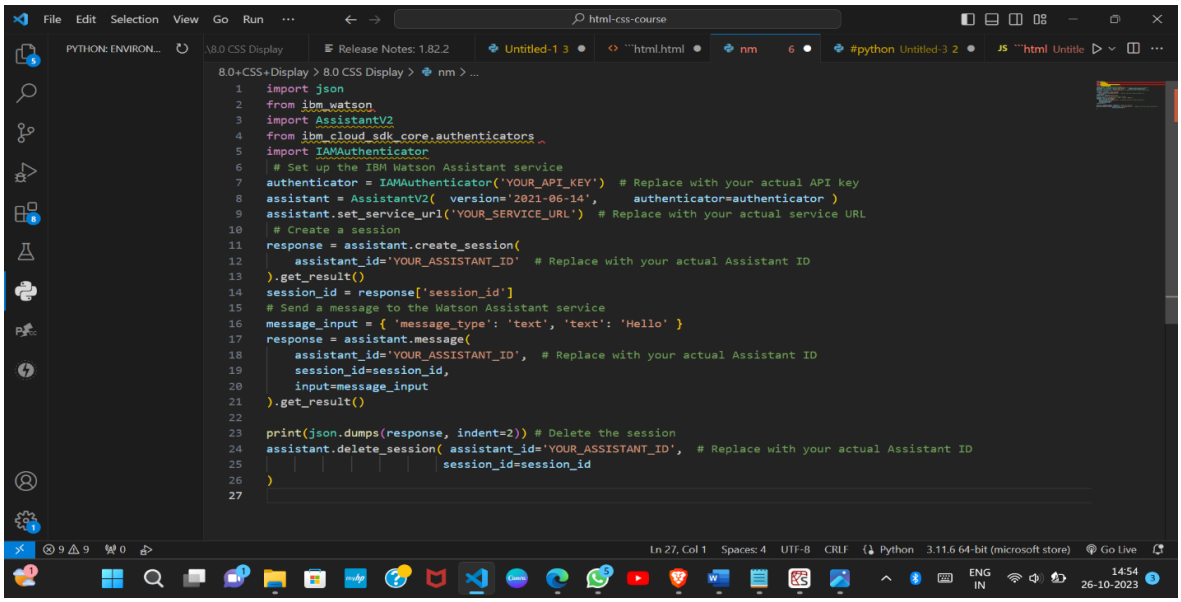
- Once you're satisfied with the integration and the functioning of the chatbot, deploy your web application to a hosting platform of your choice.
- Ensure that the necessary Watson Assistant credentials are securely integrated into your deployment process.

11. Monitor and Improve :

- Monitor user interactions with the chatbot to identify areas for improvement.
- Continuously update and enhance your Watson Assistant skill based on user feedback and real-time data.

11. Scale and Manage :

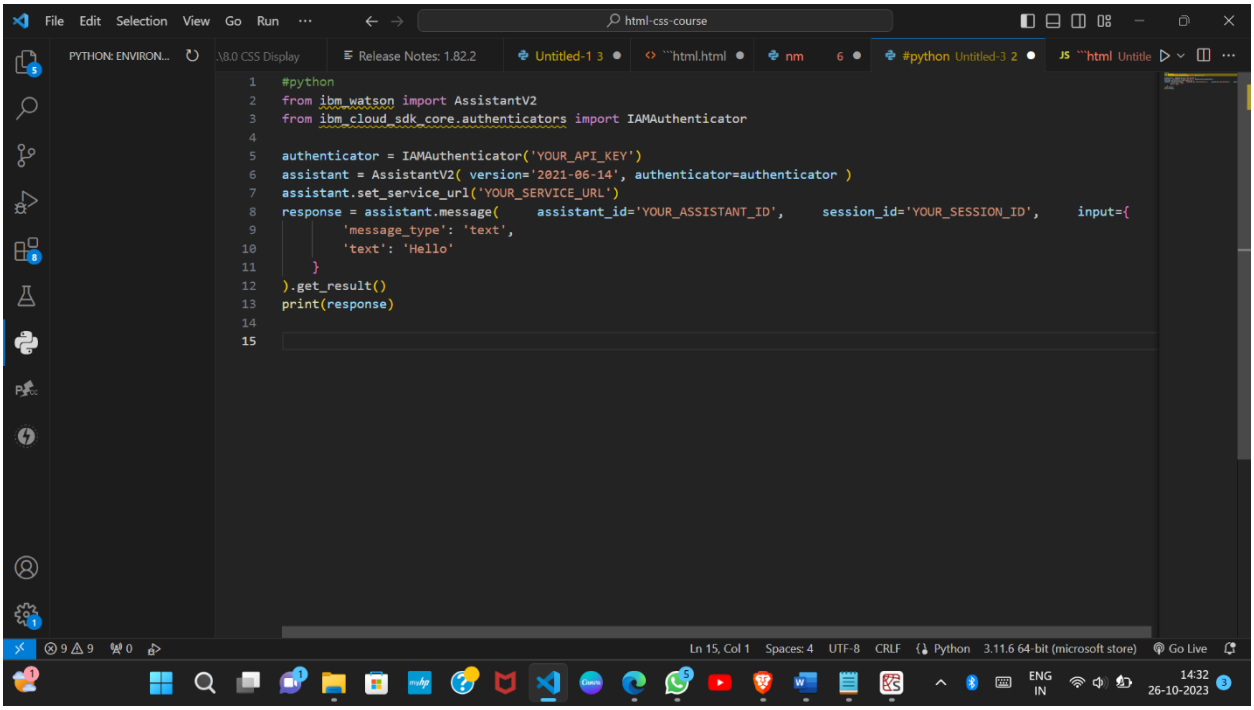
As your web application grows, make sure to scale your Watson Assistant instance accordingly to handle increased traffic and user interactions effectively.



Make sure you have the **ibm_watson** package installed.You can install it using pip.

12. Integrate the Chatbot :

- Use the provided SDKs and APIs to integrate the chatbot into your desired application or platform.
- Here's an example of how to create a basic chatbot using IBM Watson Assistant in Python:



Make sure to replace `'YOUR_API_KEY'`, `'YOUR_SERVICE_URL'`, `'YOUR_ASSISTANT_ID'`, and `'YOUR_SESSION_ID'` with your actual values.