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Android and IBM Watson

- This lab is about integrating cognitive aspects to an application using Watson's Natural language translator service.

Overview

The IBM Watson Language Translator service converts text input in one language into a destination language for the end user. Translation is available among **Arabic**, Chinese, **English**, French, Portuguese, German, and Spanish.

This lab shows how to build a mobile application that will translate a text from a source to a target language. The application is built in Java/Android and uses the IBM Watson Natural Language Translator (NLT) service to perform text translation.

To create the application in this lab, follow these main steps:

- Create the Bluemix Watson service and get the credentials to get access to the service.*
- Create a typical Android application in Java.*
- Install the Watson SDK for Java.*
- Add necessary code in the Android application to invoke the cognitive service.*

1. Create the Language Translator Service

- Creating the Language Translator service**
- Retrieving the service credentials**

2. Create a typical Android application

The application uses a simple button to submit text to translate. The translated text may be displayed in a TextView or any UI component for this purpose. When a user presses the button, the text to translate is to be sent to Watson (that would be implemented in the next steps), which returns the translated text to display on the screen.

3. Add the Watson SDK to the application project

4. Add code in the Android application to invoke the cognitive service.

Authentication

You authenticate to the Language Translator API by providing the username and password that are provided in the service credentials for the service instance that you want to use. The API uses Basic Authentication.

After creating an instance of the Language Translator service, select **Service Credentials** to see the username and password that are associated with that instance.

Bluemix provides service credentials in JSON format (see section1-part B). The JSON snippet lists credentials, such as the *username* and *password* that are associated with that instance of the service.

Note: Service credentials ("username" and "password") are different from your IBM Cloud account username and password.

Translation

To use the service, an instance of ***LanguageTranslator*** should be declared.

Then the *username* and *password* that are associated with that instance of the service should be set.

Finally, to request the translation service a call chain on the translationService instance of the LanguageTranslator class should be done as follows.