

Project 4 Task 2 – Translation App

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Description:

My application takes a search string from the user, and uses it to search and display the translation from Youdao.

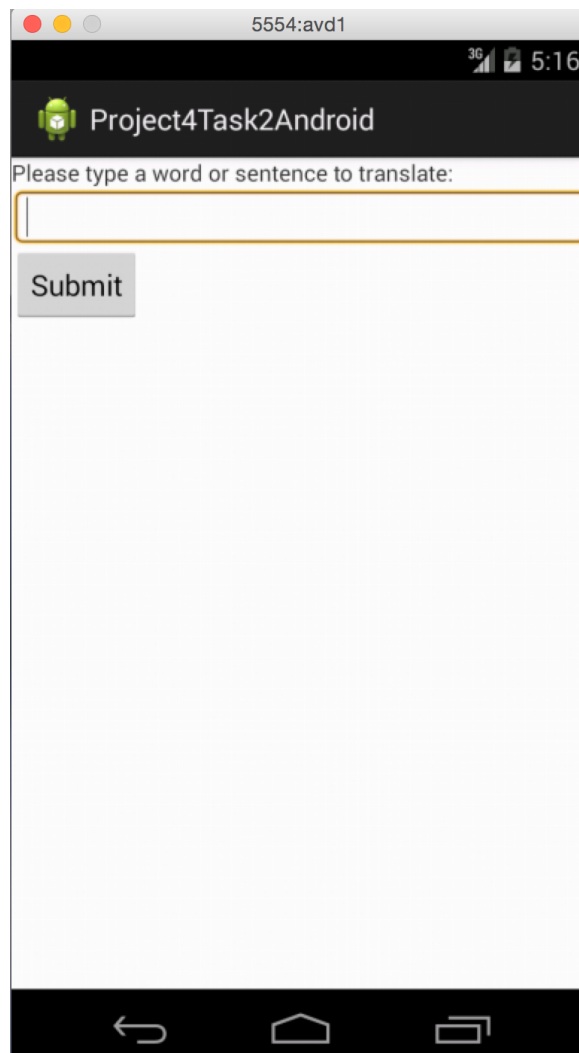
Here is how my application meets the task requirements

1. Implement a native Android application

The name of my native Android application project in Eclipse is: Project4Task2Android

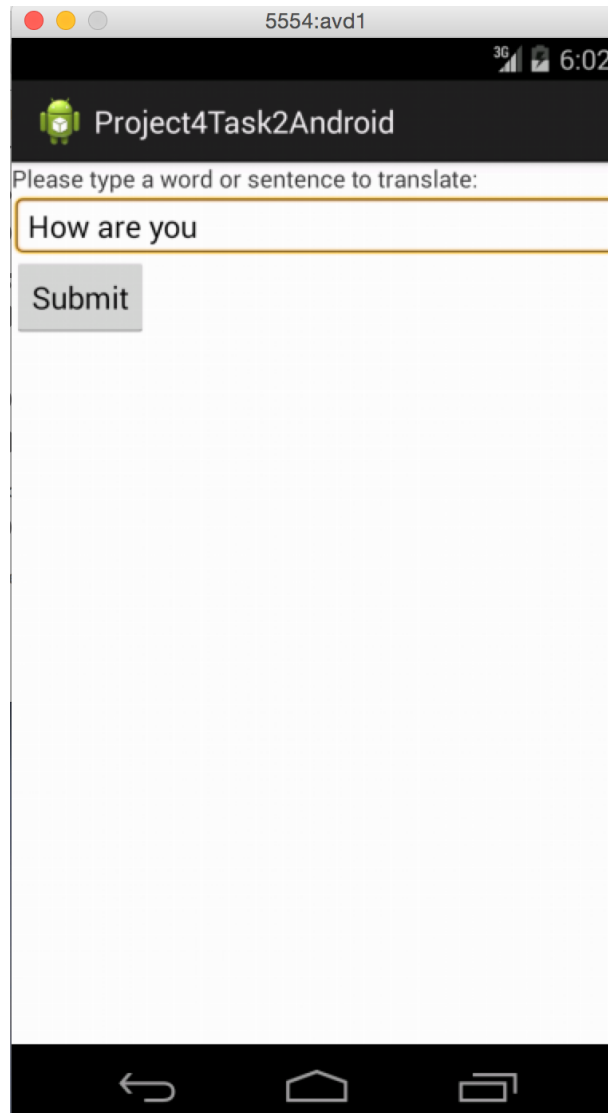
1.1. Has at least two different kinds of views in your Layout (TextView, EditText, ImageView, etc.)

My application uses TextView, EditText, Button, and. See main.xml for details of how they are incorporated into the LinearLayout.



1.2. Requires input from the user

Here is a screenshot of the user searching for translation of “How are you”.



1.3. Makes an HTTP request (using an appropriate HTTP method) to your web service

My application does an HTTP PUT request in GetTranslation.java. The HTTP request is: "http://1-dot-yigewangproject4.appspot.com/project4task2server".

The doPut method makes this request to the web service, and gets back the translation from the server.

1.4. Receives and parses an XML or JSON formatted reply from the web service

An example of the XML reply is:

```
<translation>你好</translation>
```

1.5. Displays new information to the user

Here is the screen shot after the translation has been returned.



1.6. Is repeatable (I.e. the user can repeatedly reuse the application without restarting it.)

The user can type in another search term and hit Submit. Here is an example of having typed in “Do you like Chinese food?”.



2. Implement a web application, deployed to Google App Engine

The name of the Google App Engine project in Eclipse is: Project2Task4Server

2.1. Using an HttpServlet to implement a simple (can be a single path) API

In my web app project, I used translate method in Project4Task2ServerServlet.java to implement the translation API from Youdao.

API: "[http://fanyi.youdao.com/openapi.do?
keyfrom=TranslateEnglish&key=478089570&type=data&doctype=xml&version=1.1&q=](http://fanyi.youdao.com/openapi.do?keyfrom=TranslateEnglish&key=478089570&type=data&doctype=xml&version=1.1&q=)
+ wordBeforeTranslate"

2.2. Receives an HTTP request from the native Android application

My Project4Task2ServerServlet.java receives the HTTP PUT request with the argument "content".

2.3. Executes business logic appropriate to your application

Project4Task2ServerServlet.java makes an HTTP request to: "[http://fanyi.youdao.com/
openapi.do?
keyfrom=TranslateEnglish&key=478089570&type=data&doctype=xml&version=1.1&q=](http://fanyi.youdao.com/openapi.do?keyfrom=TranslateEnglish&key=478089570&type=data&doctype=xml&version=1.1&q=)
+ wordBeforeTranslate"

It then parses the XML response and extracts the parts it needs to respond to the Android application.

2.4. Replies to the Android application with an XML or JSON formatted response.

translate method formats the response to the mobile application in a simple XML format of my own design:

```
<translation>{translated word/sentence}</translation>
```