

Getting Started

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Setting up the project

If using Eclipse and Maven, just download the Project and import into your workspace.

If not, make sure the following dependencies are added to the project:

- [junit](#)
- [gson](#)
- [httpclient](#)
- [httpserver](#)

NOTE : The http library is only used to setup an HTTP server for the demo, if using another library to setup an HTTP server then the dependency is not needed.

IMPORTANT NOTE : Line Webhooks can only be received if the endpoint is using HTTPS and has an SSL certificate issued by an authorized certificate authority. *Heroku* is a good free option to use while testing.

Deploying to Heroku

Requirements

- [Heroku CLI](#)
- [Git](#)
- [Maven](#)

If building the code from scratch, initialize the git repository first

```
git init
```

Then make a commit for the current repository

```
git add -A  
git commit -m "Setup project"
```

If this is your first time using Heroku, you will need to login first. Create an account [here](#).

```
heroku login
```

Then create the Heroku app from the repository

```
heroku create
```

To deploy the server, just push the git repository to the heroku remote.

```
git add -A  
git commit -m "Commit/Deploy message"  
git push heroku master
```


The URL of the endpoint should show up in the console. If you need it again, you can either find it on your Heroku dashboard, or type type the following command in your repository.

```
heroku open
```

Setting up the Line Channel


First, you will need to setup a LINE bot channel. You can do so by following the instructions [here](#).


In order to have your line Channel send webhook events to your server, you must let it know where your to send its WebHook events. To do so, go to your [LINE console](#) and find your channel. In the Channel Settings page, there should be a *Messaging settings* section. You can change the WebHookURL by clicking the pencil icon next to the WebHook URL header.


Email address ?
ianw3214@gmail.com 

Messaging settings

Channel access token (long-lived) ?
B+R5DI03JENfxXW+ALdsS6yHIFvBIB1xlrMh1ReV7qwgxnKfIMyV+ludAmyhCq3oLt6XlzXQlv/vSUX
SUBFNRbc+HP2TYfLZv5oMCQHqGq+xsrZpDmRd+nj+KeJWrVtkYbD8r/uxDPXRUS21iE15iQgdB04
t89/1O/w1cDnyilFU= **Issue**


Use webhooks ?
Enabled 


Webhook URL Requires SSL ?
https://radiant-castle-18336.herokuapp.com/ **Verify** 

Allow bot to join group chats ?
Disabled 

Using LINE@ features

Message text for LINE@ features are set on the LINE@ Manager.

Auto-reply messages ?
Disabled 

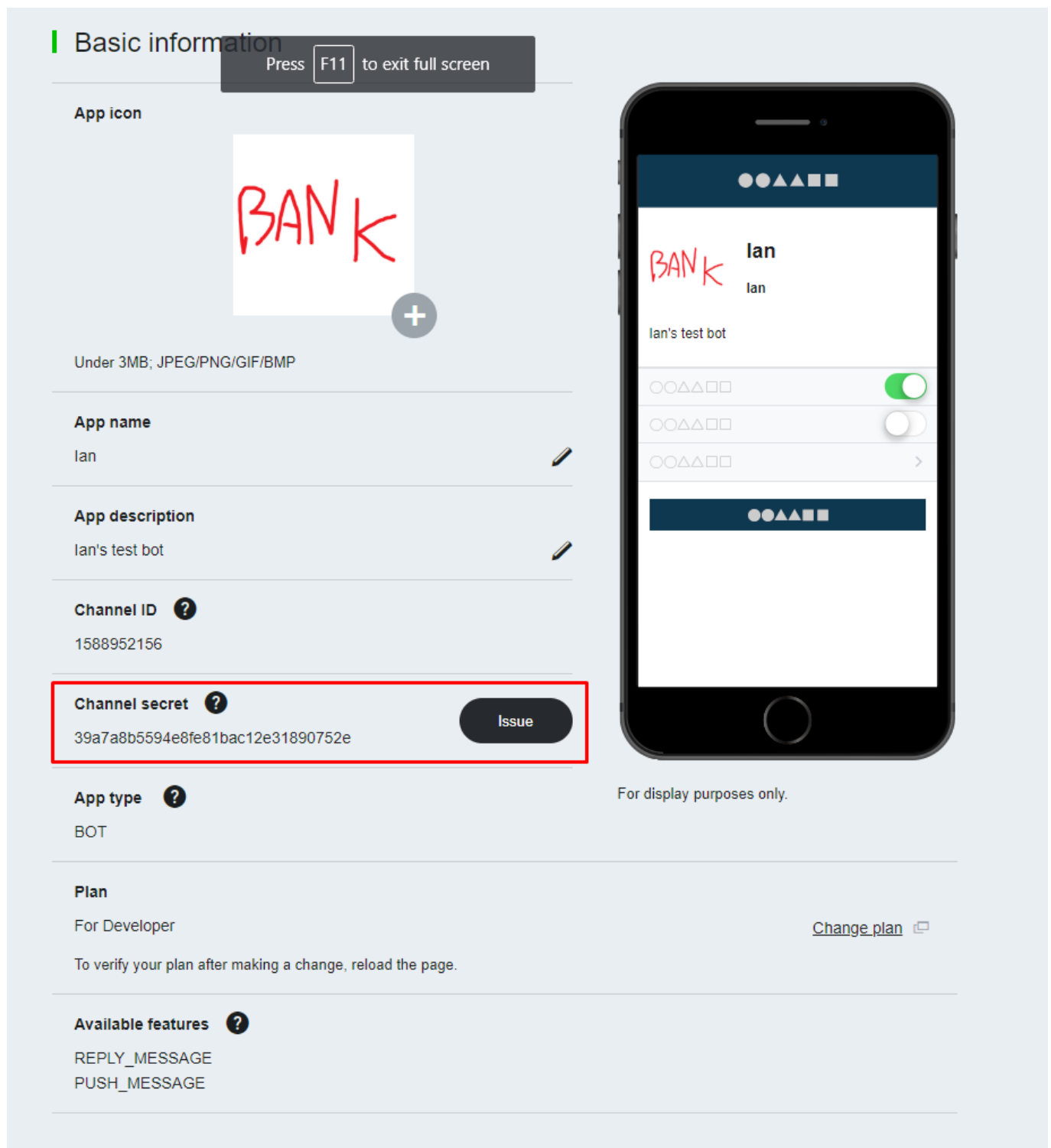
Greeting messages ?
Disabled 

LINE Messaging API basics

Two very important properties of the LINE Channel are the **Channel Secret** and the **Channel Access Token**.

The **Channel Secret** is used to validate incoming WebHook event HTTP requests and verify that the request is sent by LINE and not a third party.

The **Channel Access Token** is an access token for the messaging API, and is divided into *short-lived* and *long-lived* channel access tokens. It is sent with HTTP requests to LINE endpoints to determine and validate the channel that is sending the messages. Short lived channel access tokens can be issued from the **/v2/oauth/accessToken** endpoint.



The screenshot shows the 'Basic information' page of the LINE Developer Console. A dark overlay at the top says 'Press F11 to exit full screen'. The page lists various channel details:

- App icon:** A square icon with the word 'BANK' written in red. Below it, text reads 'Under 3MB; JPEG/PNG/GIF/BMP'.
- App name:** 'lan'.
- App description:** 'lan's test bot'.
- Channel ID:** 1588952156.
- Channel secret:** 39a7a8b5594e8fe81bac12e31890752e. This field is highlighted with a red rectangle, and an 'Issue' button is located to its right.
- App type:** BOT.
- Plan:** For Developer. A 'Change plan' link is visible.
- Available features:** A list containing 'REPLY_MESSAGE' and 'PUSH_MESSAGE'.

To the right of the form is a smartphone mockup displaying a chat interface with the bot 'lan'. The chat shows a message from 'lan' with the 'BANK' icon and a response from 'lan's test bot' with a series of status indicators (circles and triangles) and a toggle switch.

Messaging settings

Channel access token (long-lived) ?

B+R5DI03JENfxXW+ALdsS6yHIFvBIB1xlrMh1ReV7qwgxnKfIMyV+ludAmyhCq3oLt6XlZXXQlv/vSUX
SUBFNrbC+HP2TYfLZv5oMCQHgq+xsrZpDmRd+nj+KeJWrvtkYbD8r/uxDPXRUS21iE15iQgdB04
t89/1O/w1cDnyilFU=

Issue

Use webhooks ?

Enabled

Webhook URL Requires SSL ?

https://radiant-castle-18336.herokuapp.com/

Verify

Allow bot to join group chats ?

Disabled

Using LINE@ features

Message text for LINE@ features are set on the LINE@ Manager.

Auto-reply messages ?

Disabled

Greeting messages ?

Disabled

The LINE Messaging API is composed of two main parts, receiving and sending messages. The API aims to abstract away and simplify the interaction between the LINE Messaging API and your own code.

When an event, such as when a user adds your account or sends a message, is triggered, an HTTPS POST request is sent to the webhook URL that is configured for your channel on the console. Thus, your server needs to be configured to receive HTTPS requests that contain the event data.

Messages are sent by sending HTTPS POST requests to the Line Messaging API endpoints. There are two main ways to send messages, either by *reply* or *push*. Replies can be sent via a `replyToken` contained in incoming events, whereas push messages require the `userId` to be known beforehand. The demo contains an example of how to store `userIds` to be able to send push notifications without the need of a `replyToken`.

More Notes

If writing your own *pom.xml* file to deploy to Heroku, it is important to set two fields in addition to the dependencies. One is the compiler/target version:

```
<properties>
  <maven.compiler.source>1.8</maven.compiler.source>
  <maven.compiler.target>1.8</maven.compiler.target>
</properties>
```

Another is the build field:

```
<build>
  <plugins>
    <plugin>
      <!-- Build an executable JAR -->
      <groupId>org.apache.maven.plugins</groupId>
      <artifactId>maven-jar-plugin</artifactId>
      <version>2.4</version>
      <configuration>
        <archive>
          <manifest>
            <mainClass>com.ian.push.rest.App</mainClass>
          </manifest>
        </archive>
      </configuration>
    </plugin>
    <plugin>
      <groupId>org.codehaus.mojo</groupId>
      <artifactId>appassembler-maven-plugin</artifactId>
      <version>2.0.0</version>
      <configuration>
        <assembleDirectory>target</assembleDirectory>
        <programs>
          <program>
            <mainClass>com.ian.push.demo.App</mainClass>
            <name>line</name>
          </program>
        </programs>
      </configuration>
      <executions>
        <execution>
          <phase>package</phase>
          <goals>
            <goal>assemble</goal>
          </goals>
        </execution>
      </executions>
    </plugin>
  </plugins>
</build>
```

```
        </plugin>
    </plugins>
</build>
```

Also, when deploying to Heroku it is important to have a Procfile. This file describes the commands the server should run for different scenarios, in our case we want the server to run our java application for the **web** setting. The Procfile thus contains just one line:

```
web: sh target/bin/line
```

More References

- [Messaging API Documentation](#)
- [Deploying Java Apps on Heroku](#)
- [Getting started with Maven](#)
- [Heroku Procfile](#)