

Appendix A

User's Manual

A.1 Prerequisite

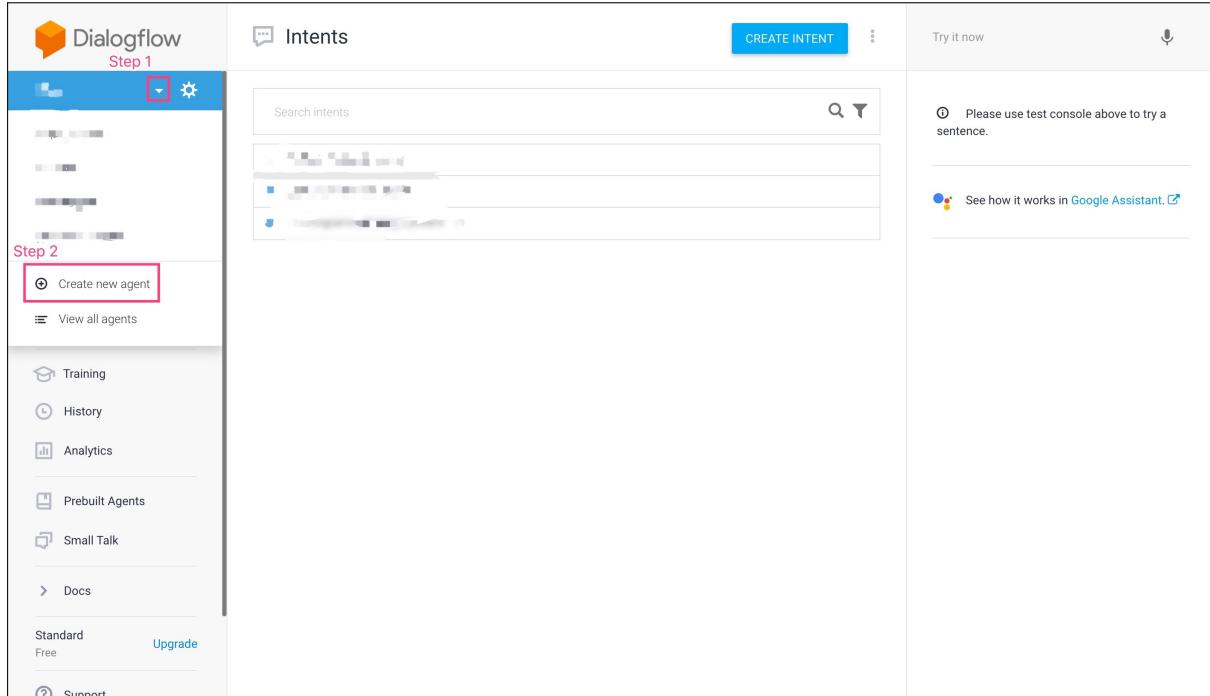
To use Dialogflow and Slack, the following account is required:

- Gmail Account
- Slack Account

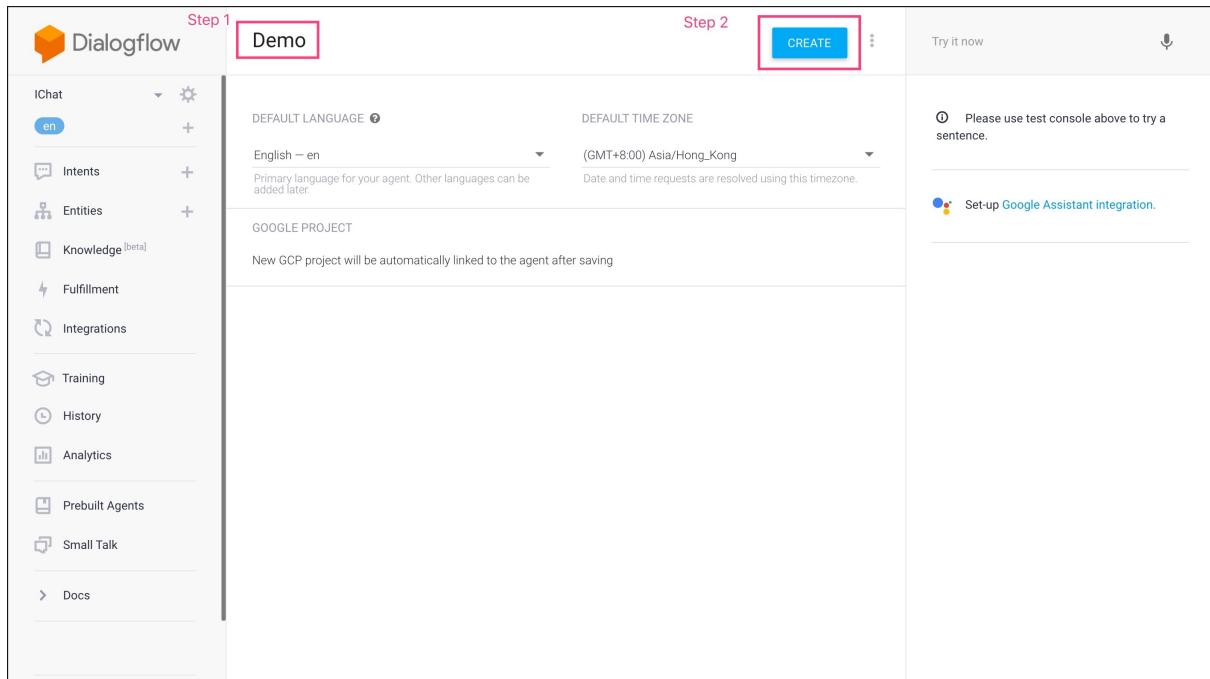
If you do not have these two accounts, please go to Slack (<https://slack.com/signin>) or Google (<https://accounts.google.com/sigNup>) to register.

A.2 Import Agent

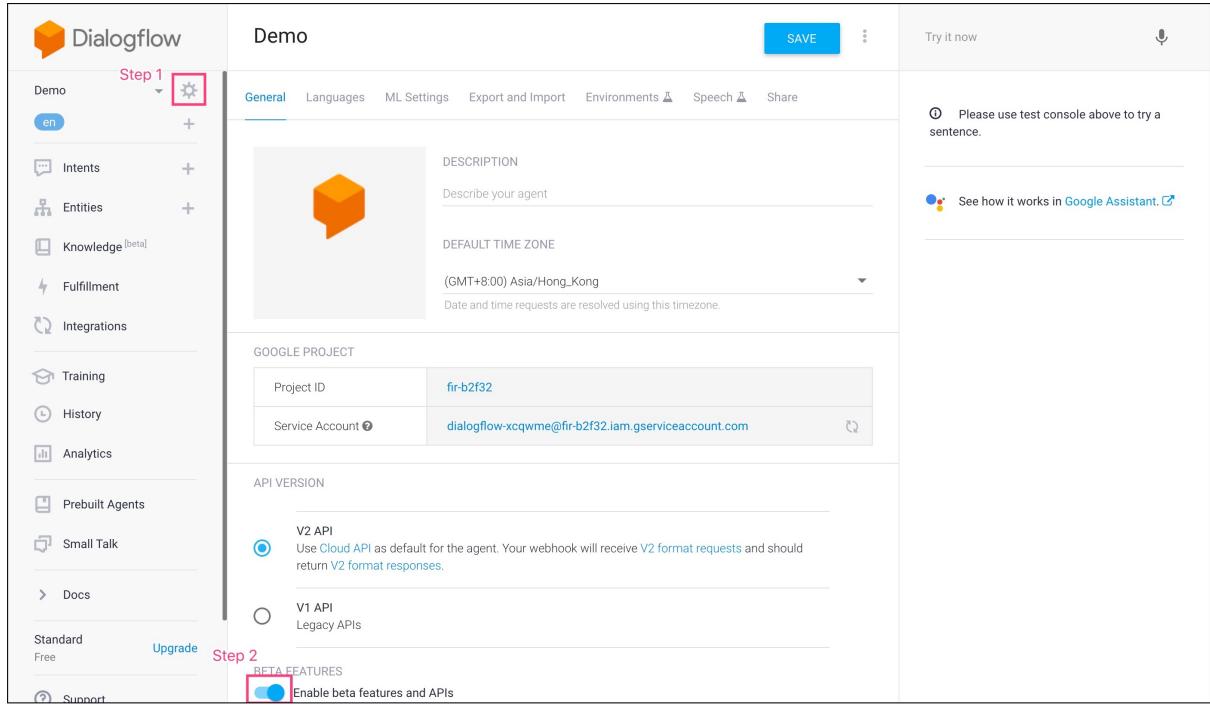
1. Go to Dialogflow Console (<https://console.dialogflow.com>), then click “Create new agent”



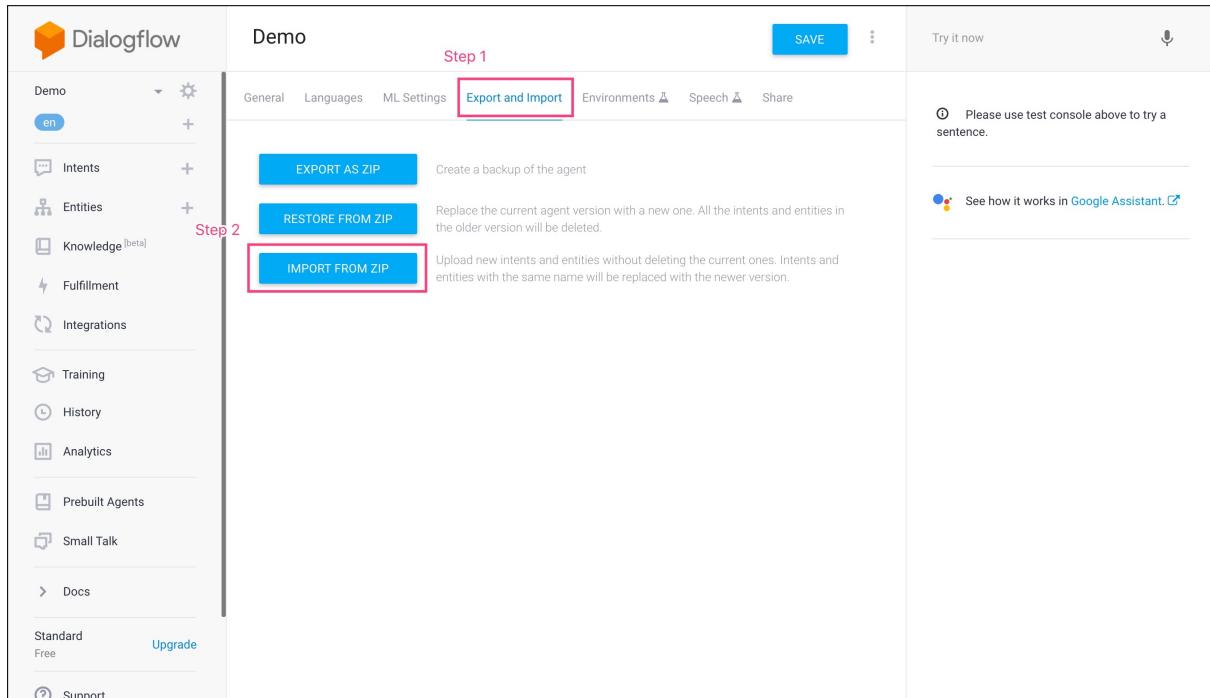
2. Put Agent name as you wish, then click “CREATE” button



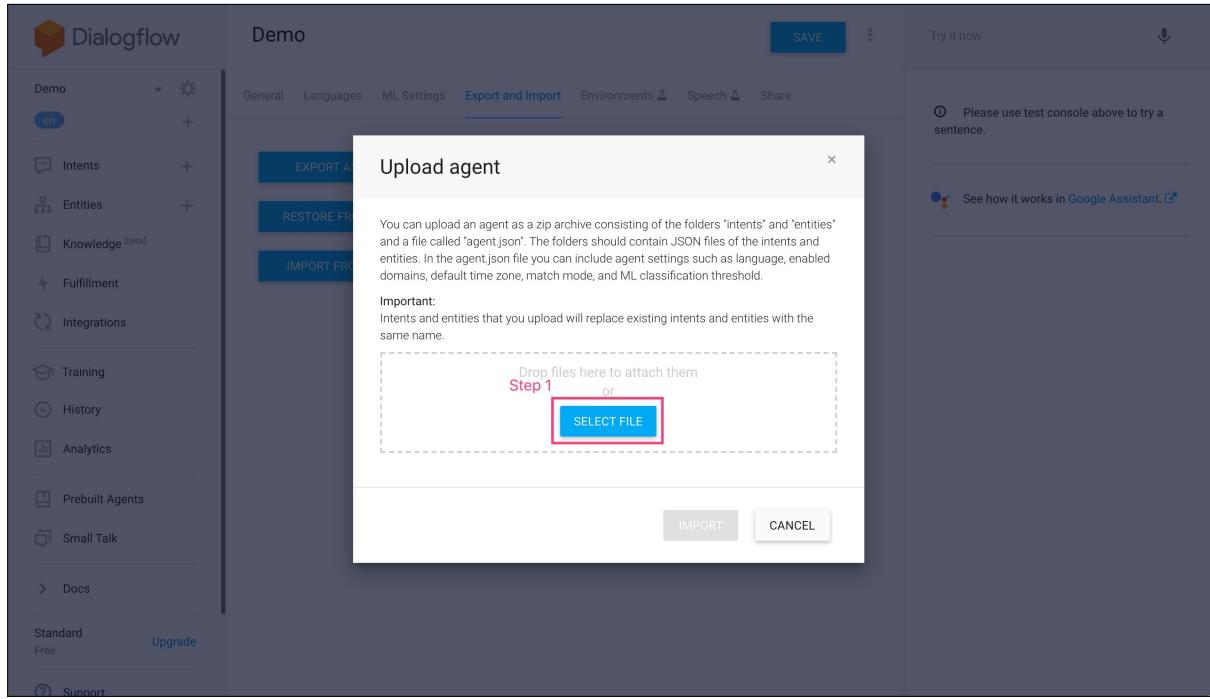
3. Go to Settings and enable beta features and APIs



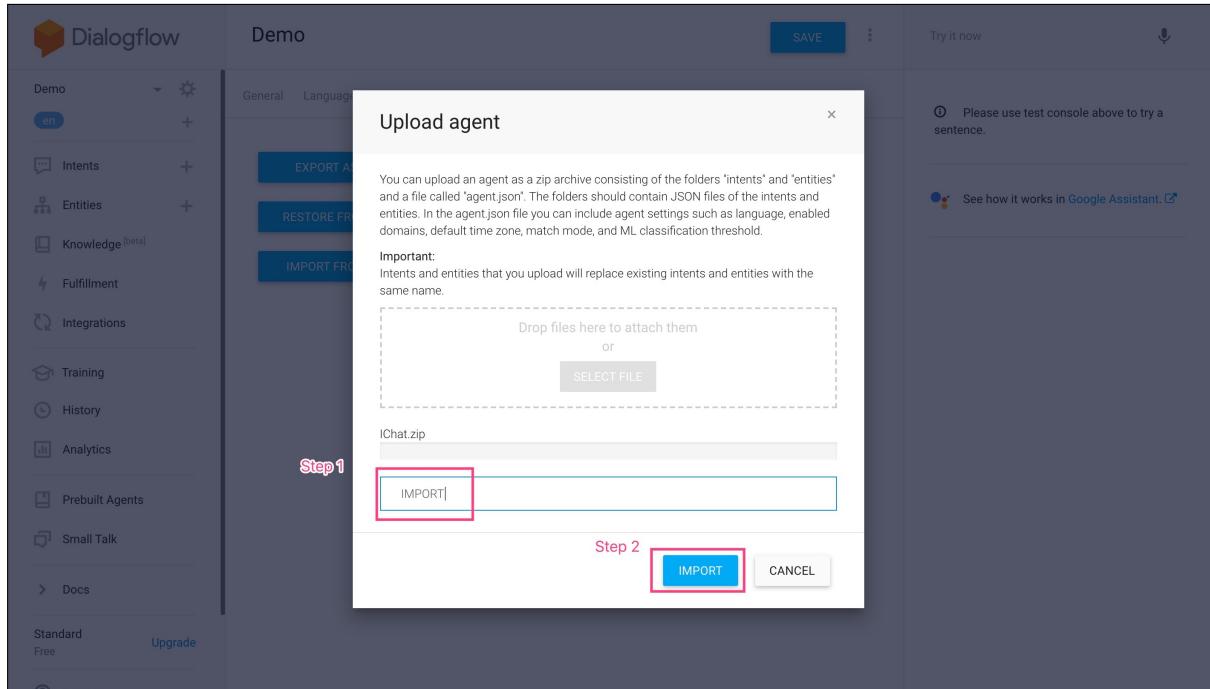
4. Go to “Export and Import” and click “IMPORT FROM ZIP”



5. Click “SELECT FILE”



6. Choose “IChat.zip”, type IMPORT and click “IMPORT” button. Click “Done” button once imported.



So far the “Intent” and “Entities” should be all imported into this agent. Let’s continue to import “knowledge”.

A.3 Create Knowledge

1. Click “Knowledge” and then “Create the first one”

The screenshot shows the Dialogflow interface with the sidebar open. The 'Knowledge [beta]' option is selected and highlighted with a red box. The main area is titled 'Knowledge Bases' with a 'CREATE KNOWLEDGE BASE' button. A red box highlights the 'Step 2' link 'Create the first one.' Below it, a text box explains the Knowledge Connector feature and provides a link to 'Read more here.' A slider labeled 'ADJUST KNOWLEDGE RESULTS PREFERENCE' allows users to specify how strongly they prefer knowledge results, ranging from 'Weaker' to 'Stronger'. On the right, there are links to 'Try it now' and 'See how it works in Google Assistant.'

2. Put Agent name as you wish, then click “SAVE” button

The screenshot shows the 'Courses' knowledge base being created. Step 1 shows the name 'Courses' entered. Step 2 shows the 'SAVE' button highlighted with a red box. The main area displays a message about adding knowledge documents. On the right, there are links to 'Try it now' and 'See how it works in Google Assistant.'

3. Click “Create the first one”

The screenshot shows the Dialogflow interface with the sidebar open. The 'Knowledge [beta]' tab is selected. The main area displays a 'Courses' card with a 'Responses' section containing an icon of a person speaking and the text 'Execute and respond to the user'. Below it is a 'Fulfillment' section. A red box highlights the 'Create the first one.' button under the heading 'Step 1'. A green bar at the bottom right says 'Agent training completed' and 'OK'.

4. Input the fields as follows and upload “part1.csv”, then click “CREATE” button

The screenshot shows the 'Create New Document' dialog box. It has fields for 'Document Name *' (Part 1), 'Knowledge Type *' (FAQ), 'Mime Type *' (text/csv), and a 'DATA SOURCE' section with three options: 'File on Cloud Storage' (gs://bucket-name/object-name), 'URL' (http://www.example.com/faq), and 'Upload file from your computer' (with a 'SELECT FILE' button and a file named 'part1.csv'). A red box highlights the 'CREATE' button at the bottom right of the dialog.

5. Click “+ New Document”

The screenshot shows the Dialogflow web interface. On the left, there's a sidebar with various navigation options like Demo, Intents, Entities, Knowledge (which is selected and highlighted in blue), Fulfillment, Integrations, Training, History, Analytics, Prebuilt Agents, Small Talk, Docs, Standard (Free), Upgrade, and Support. The main area is titled 'Courses' and shows a table of existing documents. One document, 'Part 1 (View Detail)', is listed with a 'FAQ' knowledge type, 'text/csv' mime type, and 'File uploaded' source/path. Below the table is a button labeled '+ New Document' which is also highlighted with a pink box. To the right of the table, there's a 'Responses' section with a sub-section for 'Execute and respond to the user' featuring an icon of a person speaking into a microphone, and an 'ADD RESPONSE' button. There's also a 'Fulfillment' section. At the top right, there are 'SAVE' and 'Try it now' buttons.

6. Input the fields as follows and upload “part2.csv”, then click “CREATE” button

This screenshot shows the 'Create New Document' dialog box from the previous step. It has a blue header bar with the title 'Create New Document'. The form contains several input fields: 'Document Name *' with the value 'Part 2' (highlighted by a red arrow), 'Knowledge Type *' with the value 'FAQ' (highlighted by a red arrow), 'Mime Type *' with the value 'text/csv' (highlighted by a red arrow), and a 'DATA SOURCE' section with two options: 'File on Cloud Storage' (with a gs://bucket-name/object-name input field) and 'URL' (with a http://www.example.com/faq input field). Below these is a 'Upload file from your computer' section with a 'SELECT FILE' button followed by the path 'part2.csv' and a delete 'x' button. In the bottom right corner of the dialog box is a large blue 'CREATE' button, which is also highlighted with a pink box.

7. Click “ADD RESPONSE”

The screenshot shows the Dialogflow interface with the 'Knowledge [beta]' tab selected. In the 'Responses' section, there is a 'Step 1' card with a 'Step 1' icon and a 'ADD RESPONSE' button highlighted with a red box.

8. Click “SAVE” button

The screenshot shows the Dialogflow interface with the 'Knowledge [beta]' tab selected. The 'Responses' section now contains a 'Text response' card with two variants: '1 SKnowledge Answer[1]' and '2 Enter a text response variant'. The 'SAVE' button at the top right of the 'Step 1' card is highlighted with a red box.

A.4 Create Fulfilment

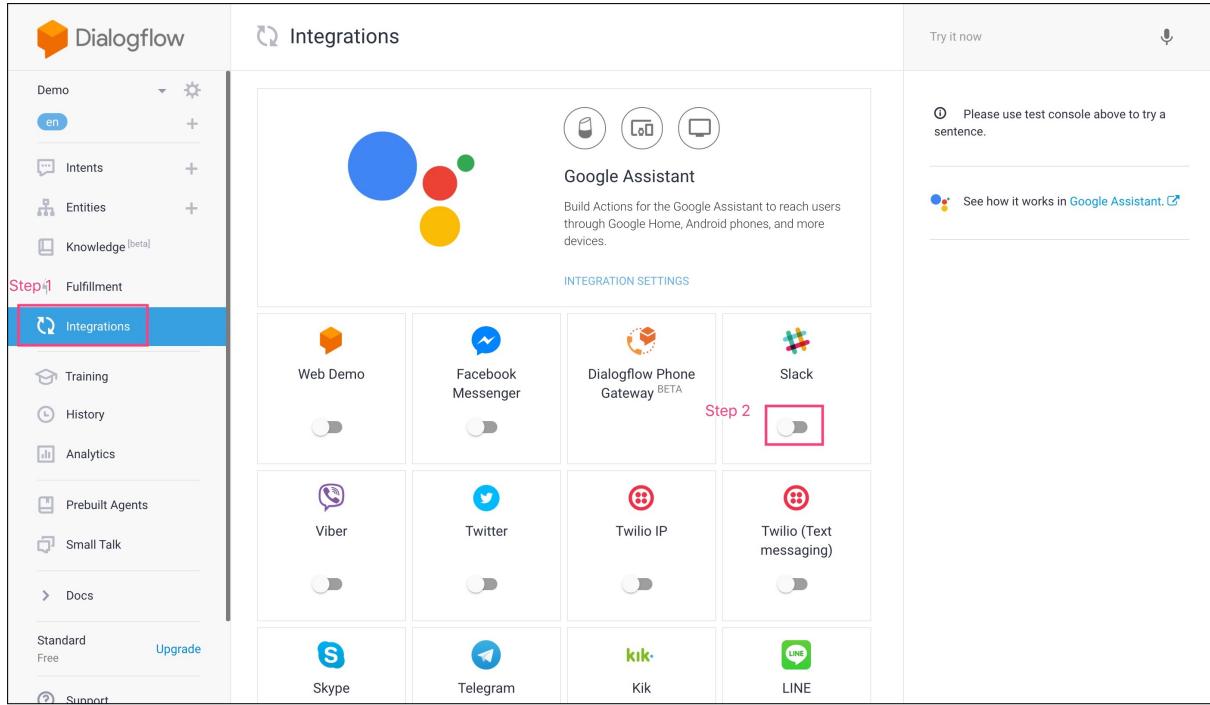
Click “Fulfillment” and enable “Inline Editor”, copy “IChat.js” and replace the content in “Index.js”. Then click “DEPLOY” button

The screenshot shows the Dialogflow Fulfillment interface. On the left, a sidebar lists various agent components: Demo, Intents, Entities, Knowledge [beta], Step 1 (highlighted), Fulfillment (highlighted with a red box), Integrations, Training, History, Analytics, Prebuilt Agents, Small Talk, Docs, Standard Free, and Upgrade. The main area is titled "Fulfillment" and "Webhook". It displays the "Inline Editor (Powered by Cloud Functions for Firebase)". A note says: "Your web service will receive a POST request from Dialogflow in the form of the response to a user query matched by intents with webhook enabled. Be sure that your web service meets all the [webhook requirements](#) specific to the API version enabled in this agent." The "Step 2" section shows the "ENABLED" toggle switch. The "Step 3" section contains the "index.js" and "package.json" files. The "Step 4" section contains a "DEPLOY" button. The code in index.js is as follows:

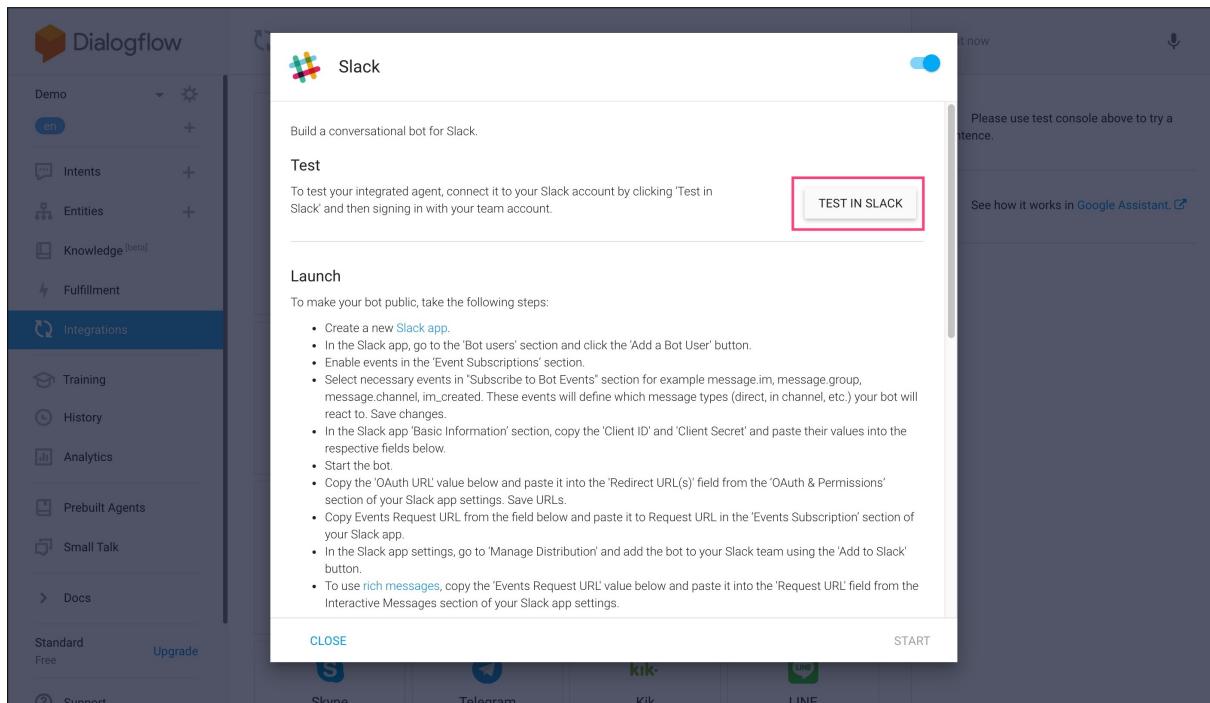
```
// Run the proper function handler based on the matched Dialogflow intent name
let intentMap = new Map();
intentMap.set('Default Welcome Intent', welcome);
intentMap.set('Default Fallback Intent', fallback);
intentMap.set('ISSProgrammeCategoryIntent', getISSProgrammeCategoryIntent);
intentMap.set('selectGraduateProgrammeIntent', selectGraduateProgrammeIntent);
intentMap.set('level1Intent', getLevel1Intent);
intentMap.set('level2Intent', getLevel2Intent);
intentMap.set('getCourseMoreDetails', getCourseMoreDetails);
// intentMap.set('your intent name here', yourFunctionHandler);
// intentMap.set('your intent name here', googleAssistantHandler);
agent.handleRequest(intentMap);
});
```

A.5 Integration

1. Click “Integrations” and then enable “Slack”

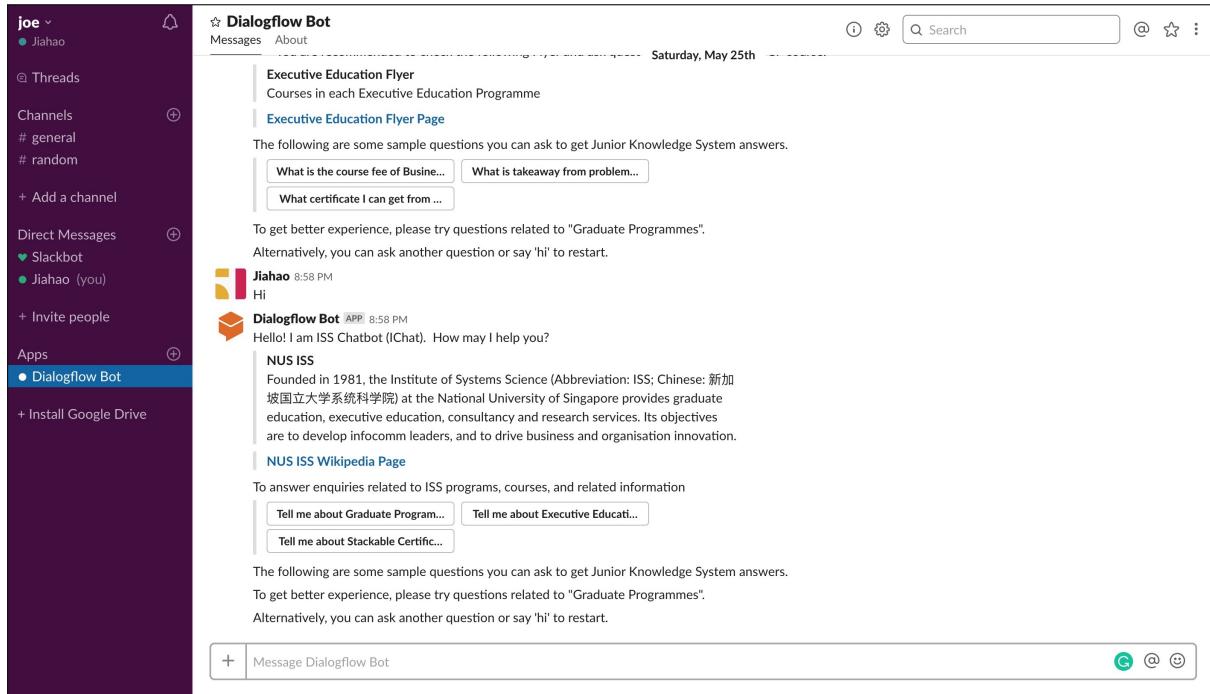


2. Follow the “Launch” to use, or click “TEST IN SLACK” with proper Slack set-up for testing



A.6 Test Demo

If Dialogflow is successfully integrated with Slack, you can say "hi" or other welcome words, and IChat will answer you enquiries.



To easier test, the invite link is created for one of my demo.

Here is the [link](#).