ST0249   
AI & Machine Learning

Practical 8  
Bots I



What you will learn / do in this lab

1. Explore Bots concepts and applications

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# 1. Overview

In this practical we will be exploring what are chatbots. We will also be setting up a simple chatbot using Facebook Messenger and DialogFlow.

## Introduction to Chatbots

Chatbot is a computer program designed to simulate conversations with human users, especially over the Internet.

It is a layer on top of, or a gateway to, a service. Sometimes it is powered by machine learning (the chatbot gets smarter the more you interact with it). Or, more commonly, it is driven using intelligent rules (i.e. if the person says this, respond with that).

The services a chatbot can deliver are diverse. Important life-saving health messages, to check the weather forecast or to purchase a new pair of shoes, and anything else in between.

The term chatbot is synonymous with text conversation but is growing quickly through voice communication… “Alexa, what time is it?” (other voice-chatbots are available!)

The chatbot can talk to you through different channels; such as Facebook Messenger, Siri, WeChat, Telegram, SMS, Slack, Skype and many others.

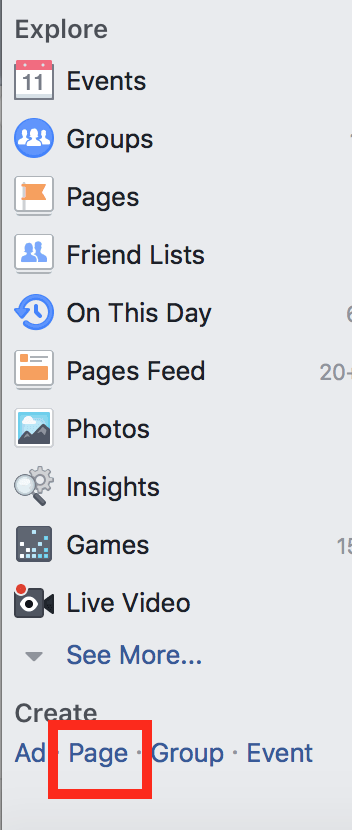
Consumers spend lots of time using messaging applications (more than they spend on social media). Therefore, messaging applications are currently the most popular way companies deliver chatbot experiences to consumers.

# 2. Chatbot service setup Part 1

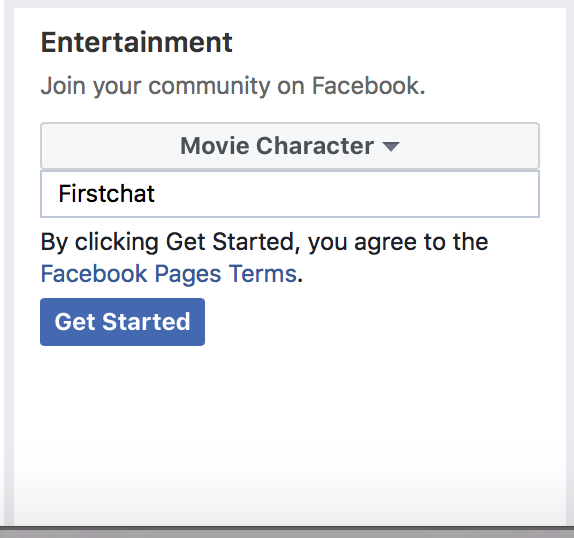
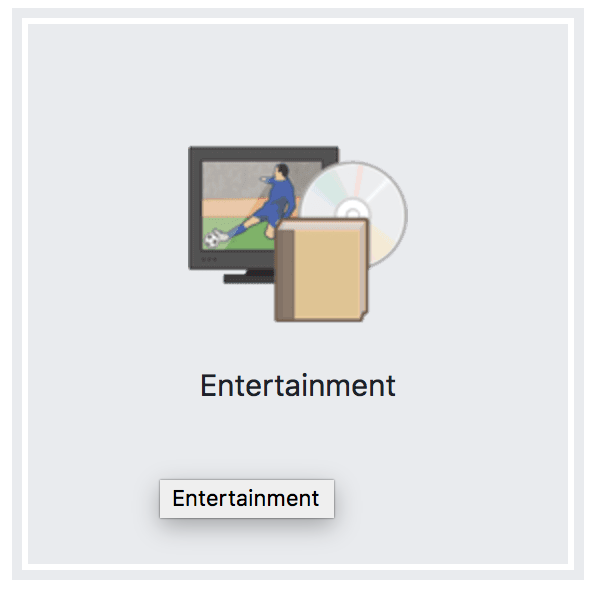
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| Objectives:  After completing this lab, you should be able to:   * Create a Facebook Developer Page * Create a Facebook Application |

**Exercise 1. Create a Facebook Page**

* Navigate to Facebook http://www.facebook.com
* On the left panel, Tap Page. Note:You have to be logged in to see the panel.

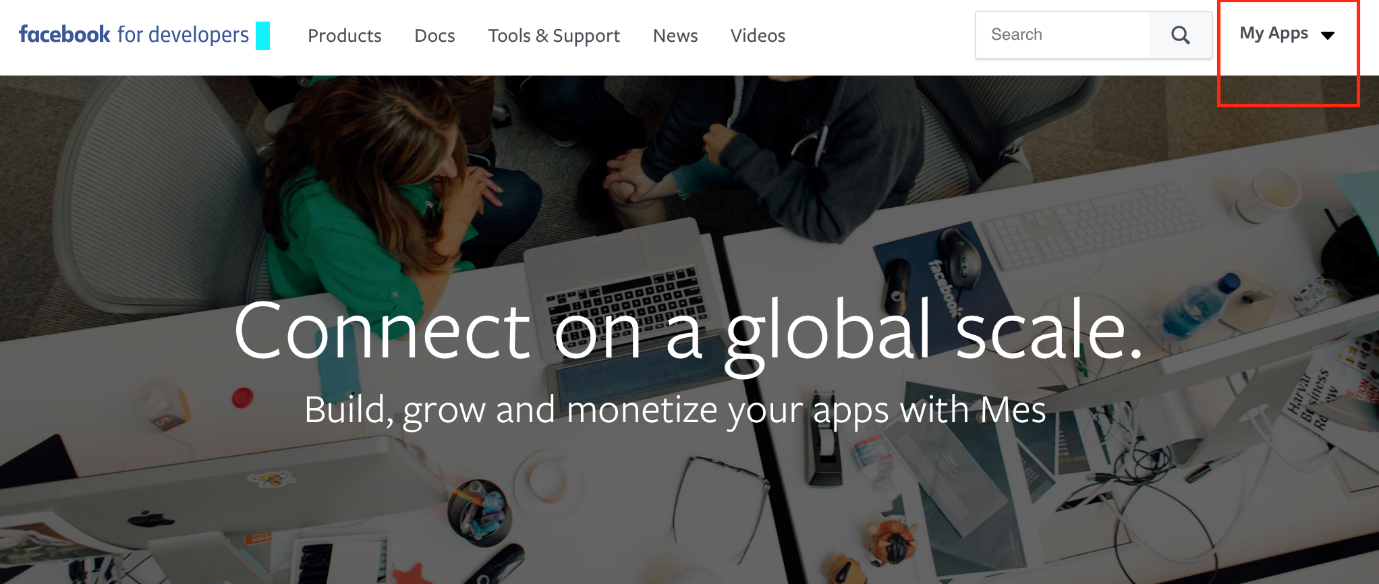


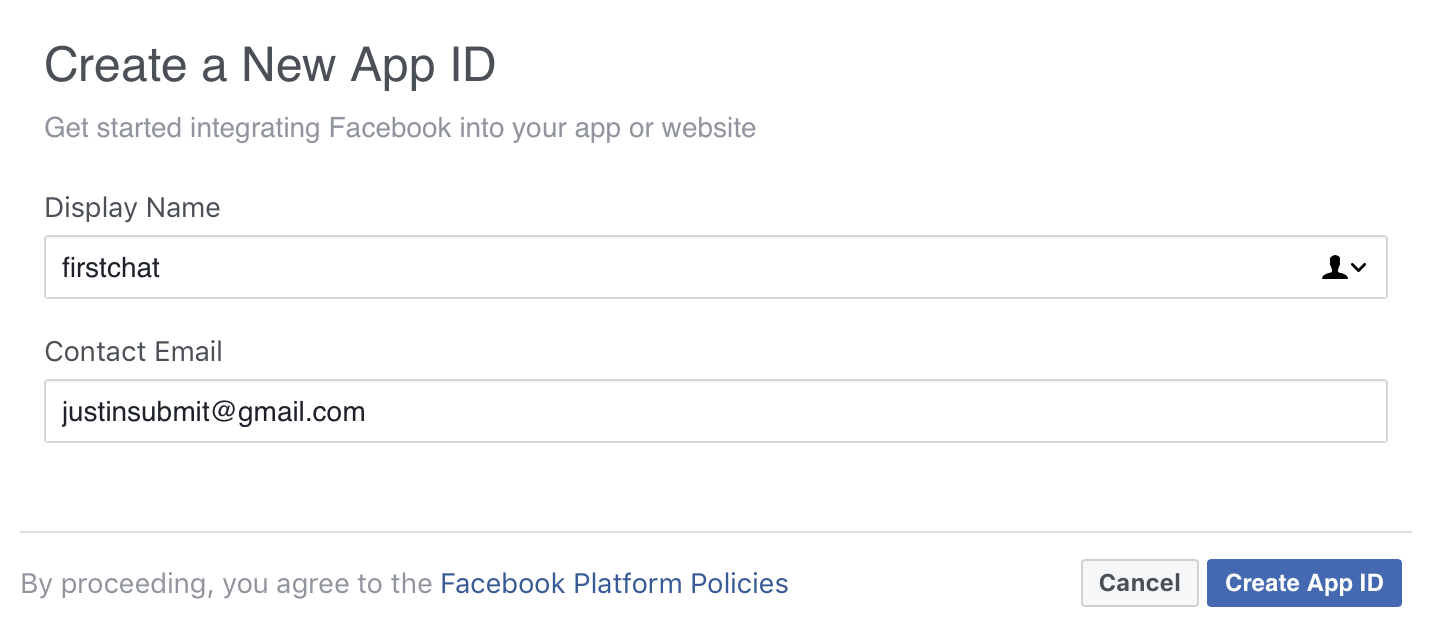
* Select a Page Type (i.e. Entertainment).
* Choose your preferred category from the drop down list.
* Type your application name in the textbox. Note: Name should contain only English alphabet letters.
* Click **Get Started**



Exercise 2: Create a Facebook Application

* Navigate to http://facebook.developers.com
* Click MyApps ->Click Add New Apps
* In the Create a New App Id Dialog, fill in the Display Name and Contact Email
* Click Create App Id
* The application is created

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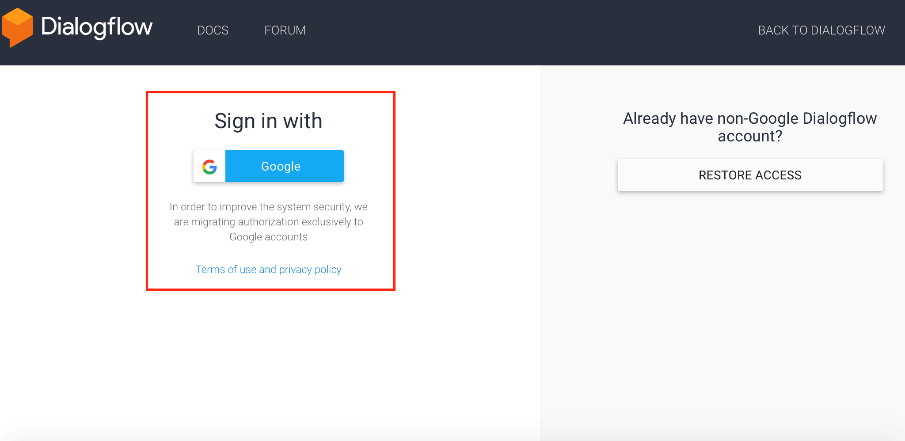
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# 3. Chatbot service setup Part 2

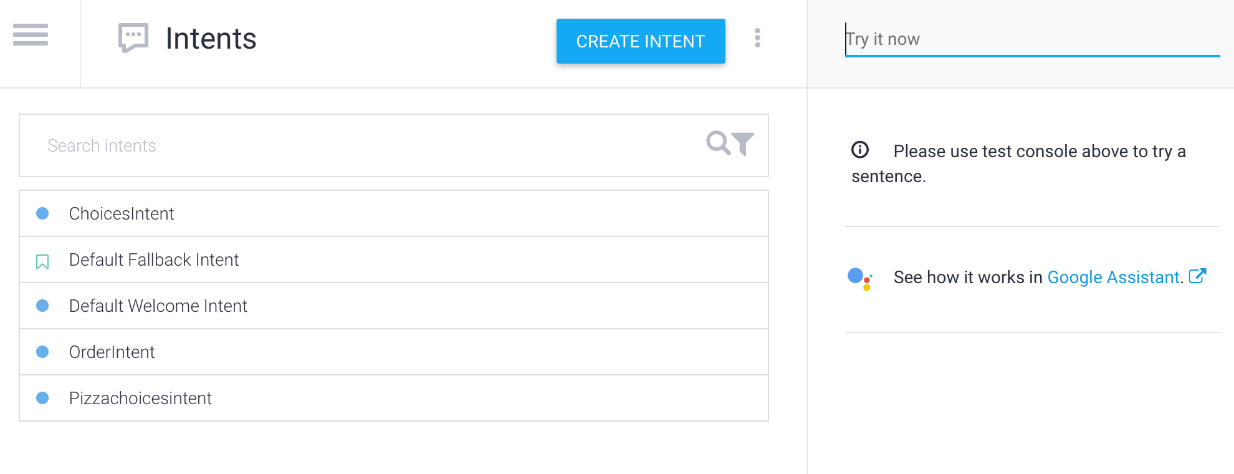
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| Objectives:  After completing this lab, you should be able to:   * Create a Chatbot Agent in DialogFlow * Connect the Chatbot Agent to the Facebook Application |

**Exercise 1: Create a DialogFlow Account**

* Navigate to http://www.dialogflow.com
* Tap Console
* Sign in with your Google Account

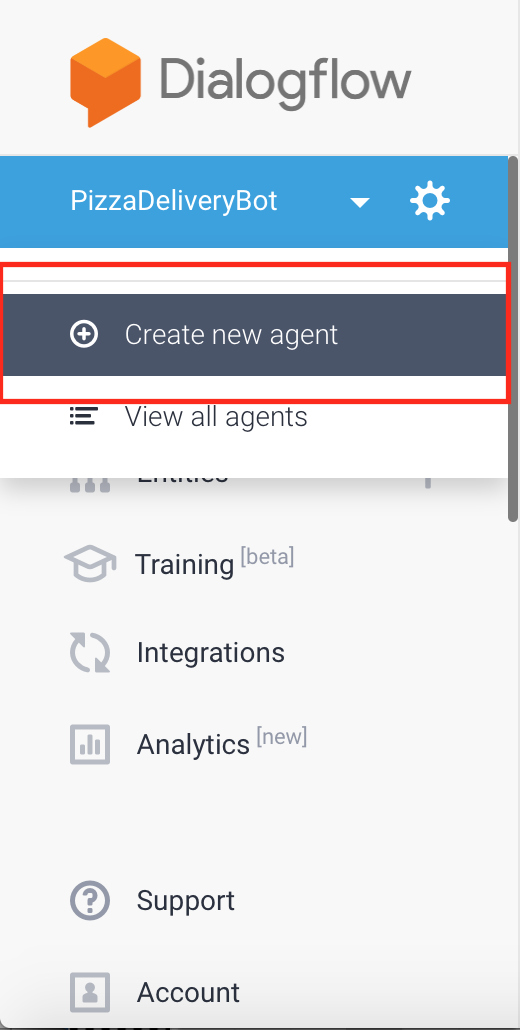


The Console Page should look similar to below



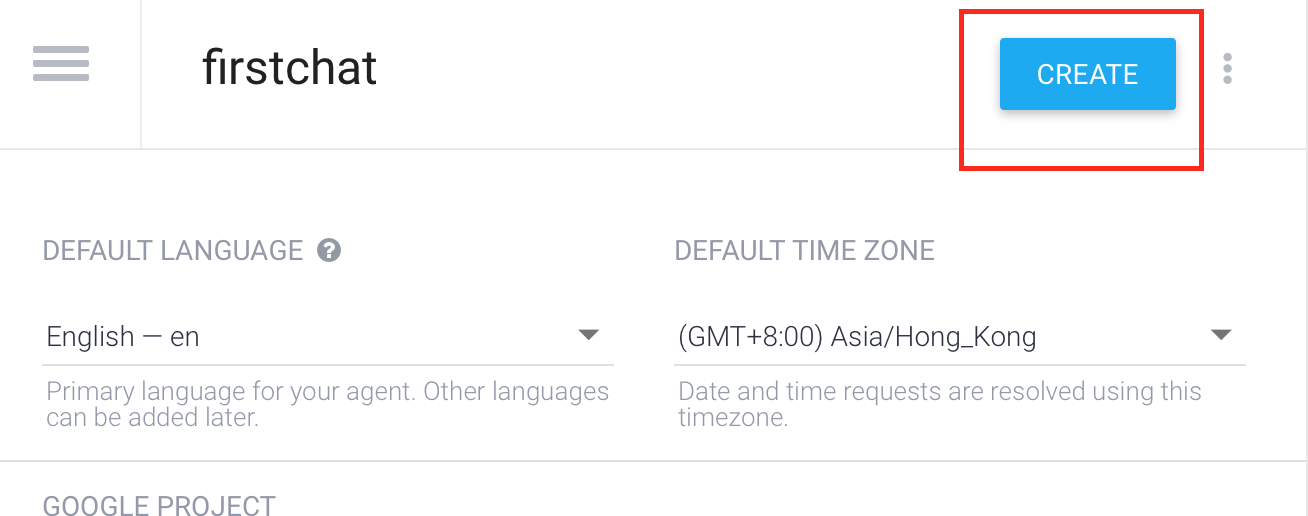
**Exercise 2. Create a New Agent**

Tap on the Create new agent item.



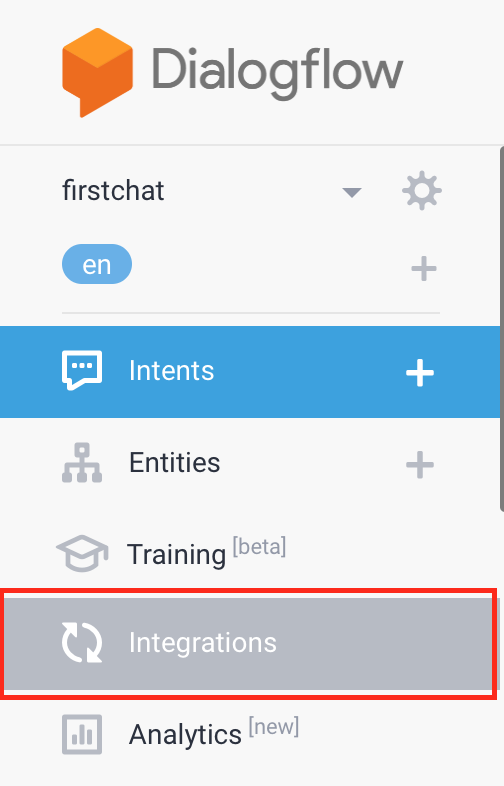
Type the name for your agent.

Click Create



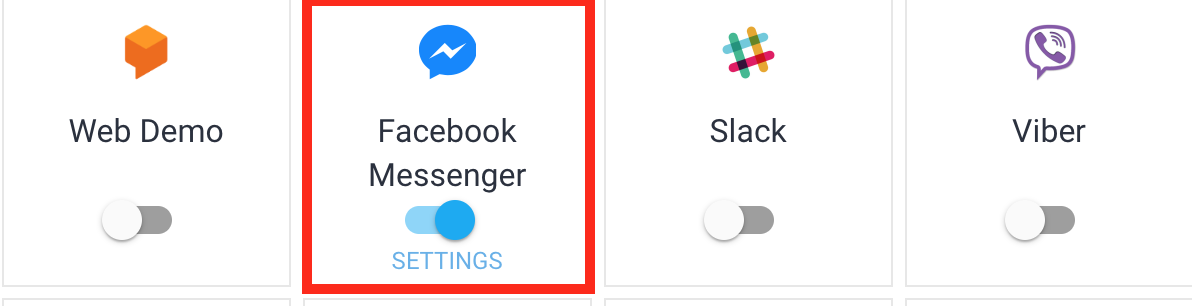
**Exercise 3. Integrate Agent With Facebook Application**

Click Integrations



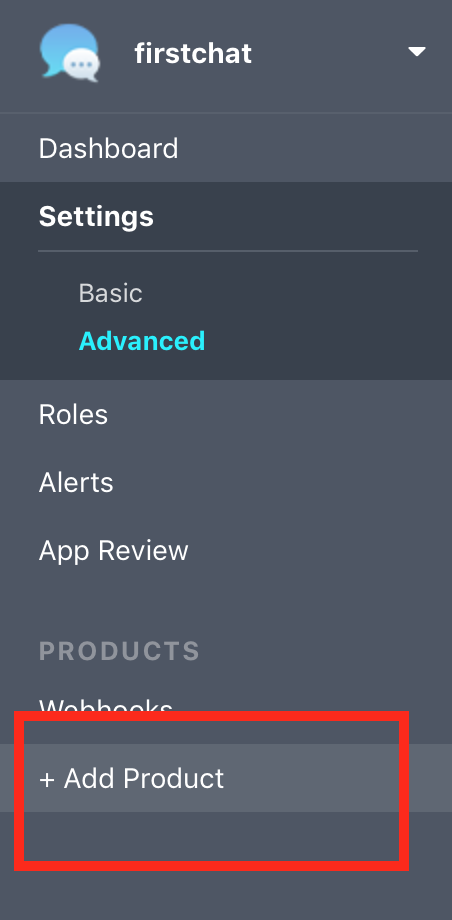
Enable Facebook Messenger

A dialog box will appear requiring token information from Facebook



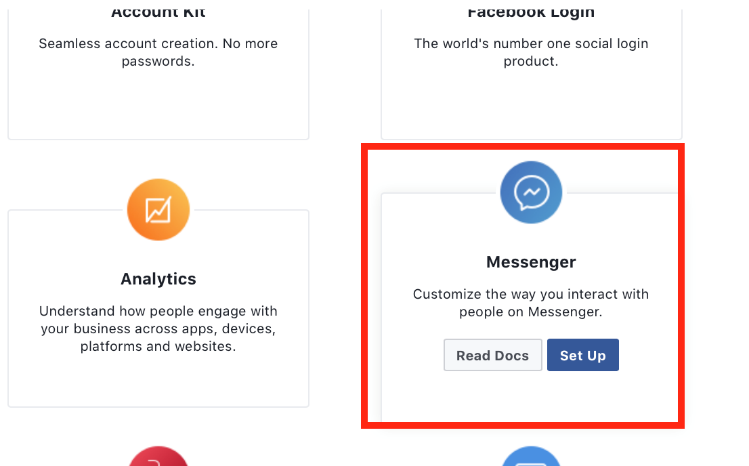
Navigate back to your Facebook Application Page to retrieve the Page Access Token

Click Add Product



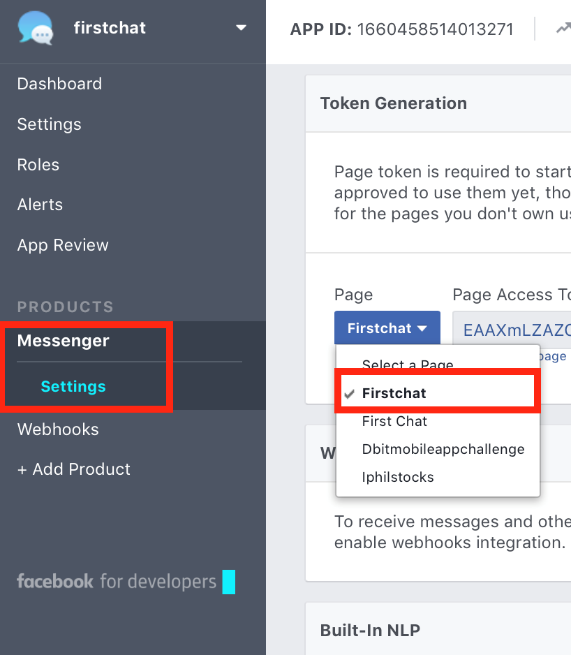
Search for Messenger among the various categories shown

Click Set Up

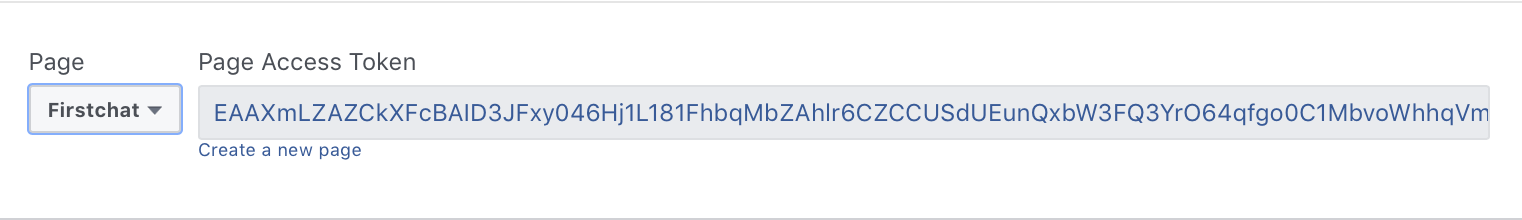


In the left menu, click Settings

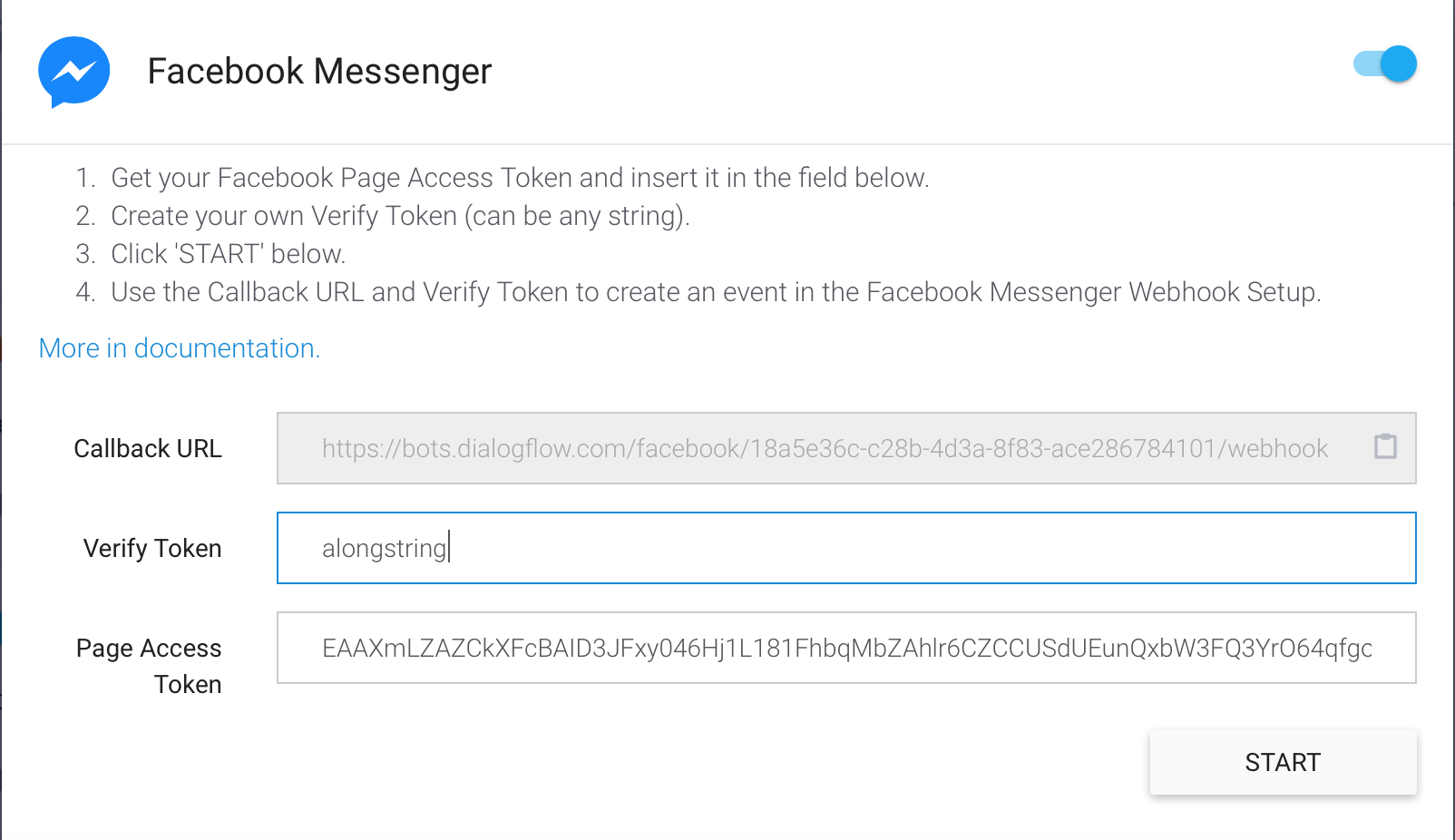
Select your Facebook page in the drop down



The Page Access Token is created and displayed



* Return to your Dialogflow page to complete the setup process
* Paste the Page Access Token in the corresponding text box
* Fill in your **own** verify token
* Note: It can be any long string
* Start the chatbot service by clicking **Start**

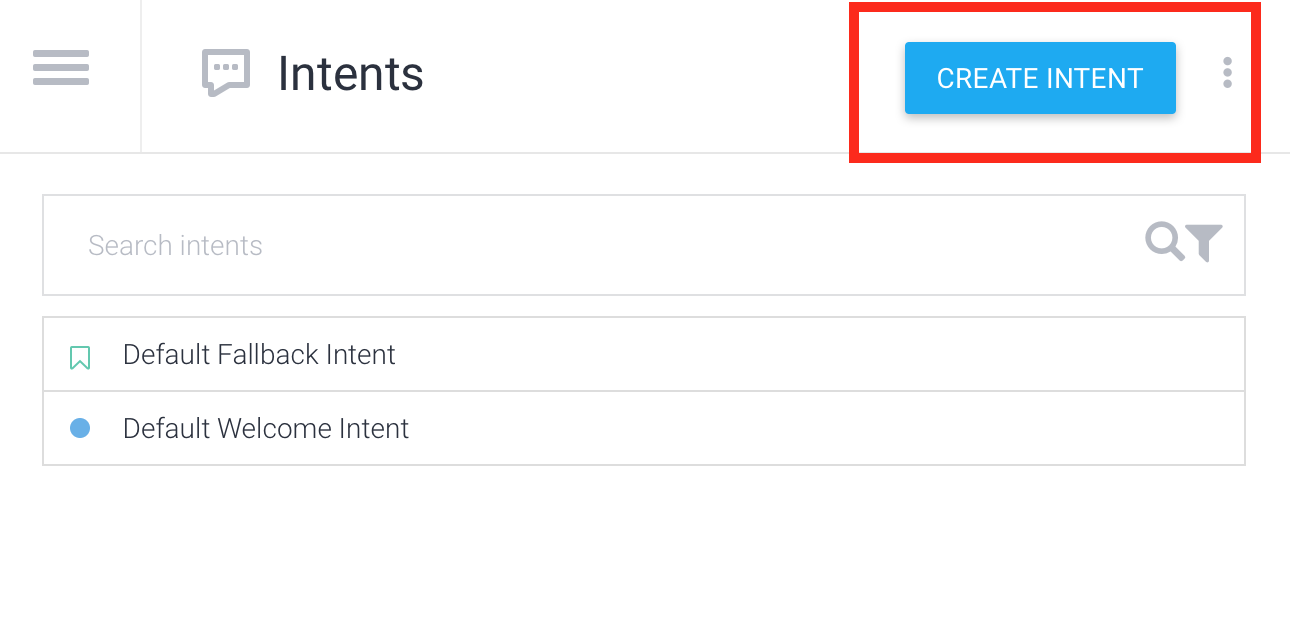


# 4. Bot Conversation

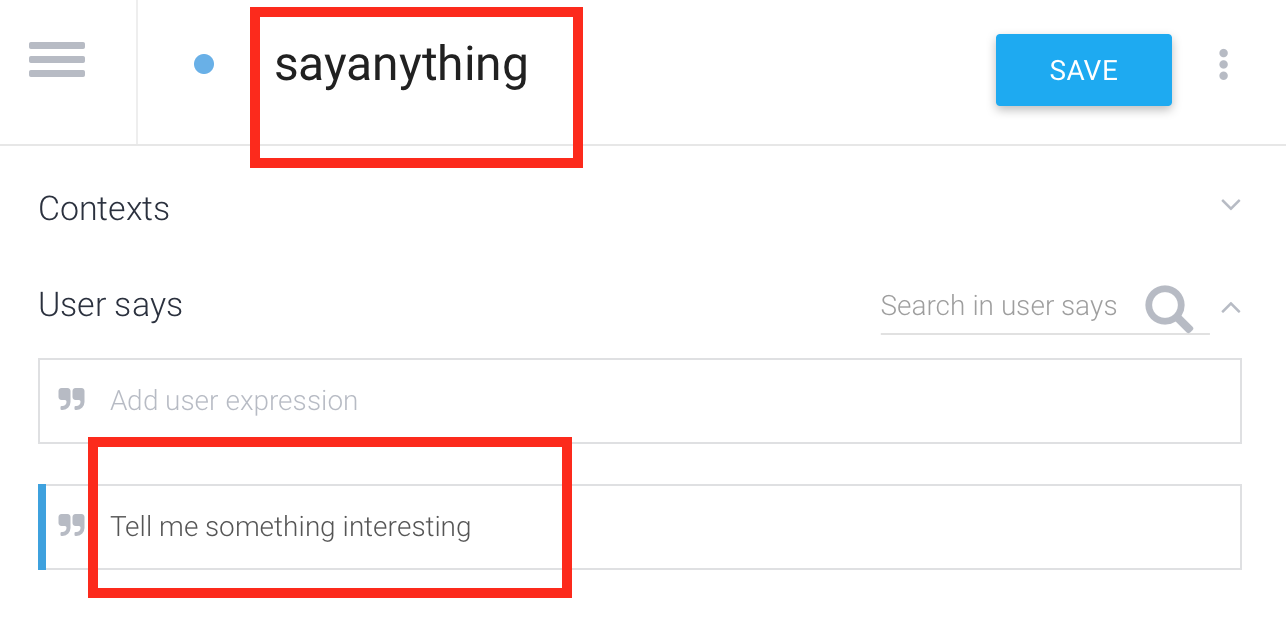
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| Objectives:  After completing this lab, you should be able to:   * Send a message and receive a response from the chatbot * Test the chatbot within the Dialogflow website * Use Facebook Messenger to send a message to the chatbot |

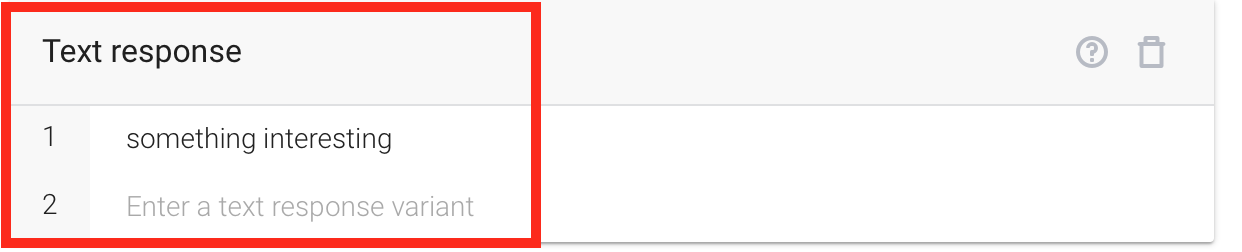
**Exercise 1: Create An Intent**

* Navigate to console.dialogflow.com
* Click Create Intent



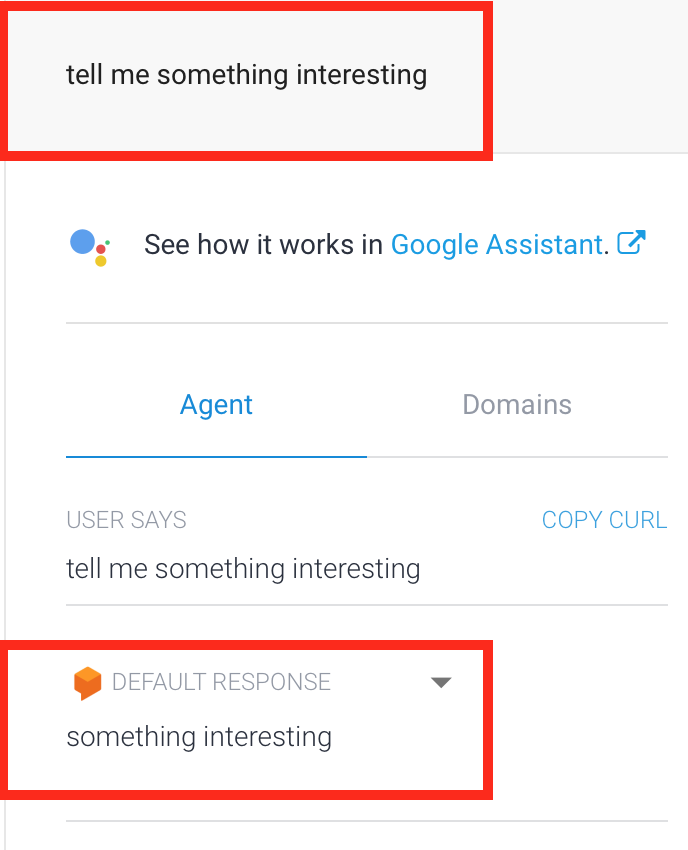
Fill in **Intent Name**, **User Says**, and **Speech Response** as shown below





**Exercise 2: Test the Chatbot Within Dialogflow**

* Test out the chatbot in the right hand panel
* Type **“tell me something interesting”** and press enter
* Notice the response is the same as what was specified in the Intent
* Type other similar phrases and observe the results



**Exercise 3: View JSON**

* In the right hand panel, click **Show JSON**
* The resulting dialog shows JSON code generated by the chatbot.
* Note: JSON information will be sent by Dialogflow, to the Facebook application.



**Exercise 4: Test the Chatbot in Facebook Messenger**

* Navigate to your Facebook Application.
* Tap the Send Message button to send a message.
* Notice that the response is the same as that specified in the Intent

