

## ARTICLE

READER LEVEL:



# Using Microsoft Cognitive Services With LUIS API

By **Abdul Rasheed Feroz Khan** on Sep 20, 2016

In this article, you will learn about using Microsoft Cognitive Services With LUIS API.

## Introduction

This article will help us build an application under Microsoft Cognitive Services using LUIS (Language Understanding Intelligent System) API. Here, by this application we will be developing an app which will be working with two intents like "FindNews" and "Sendto".

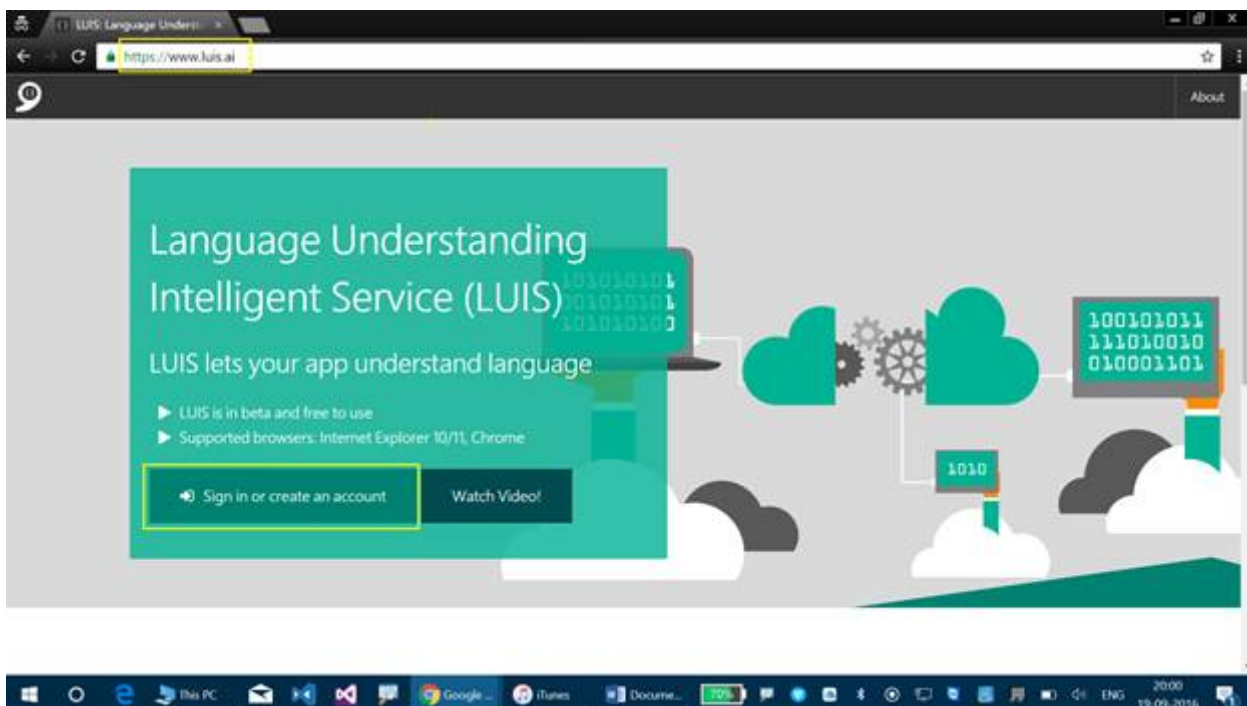
**Note** - Surf my previous article to understand what are Microsoft Cognitive Services and LUIS API in detail.

## Pre-requisites

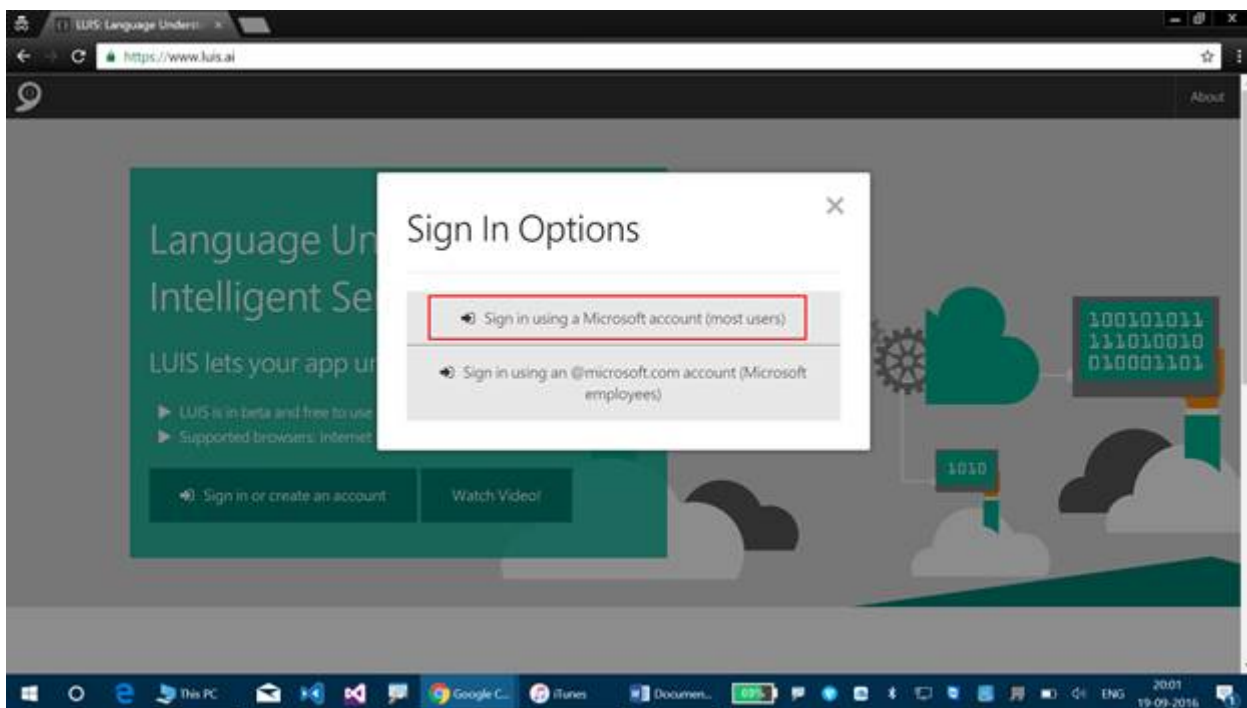
1. An updated web browser.
2. Microsoft Account (recommended).

Follow the below steps now to create an application on LUIS.

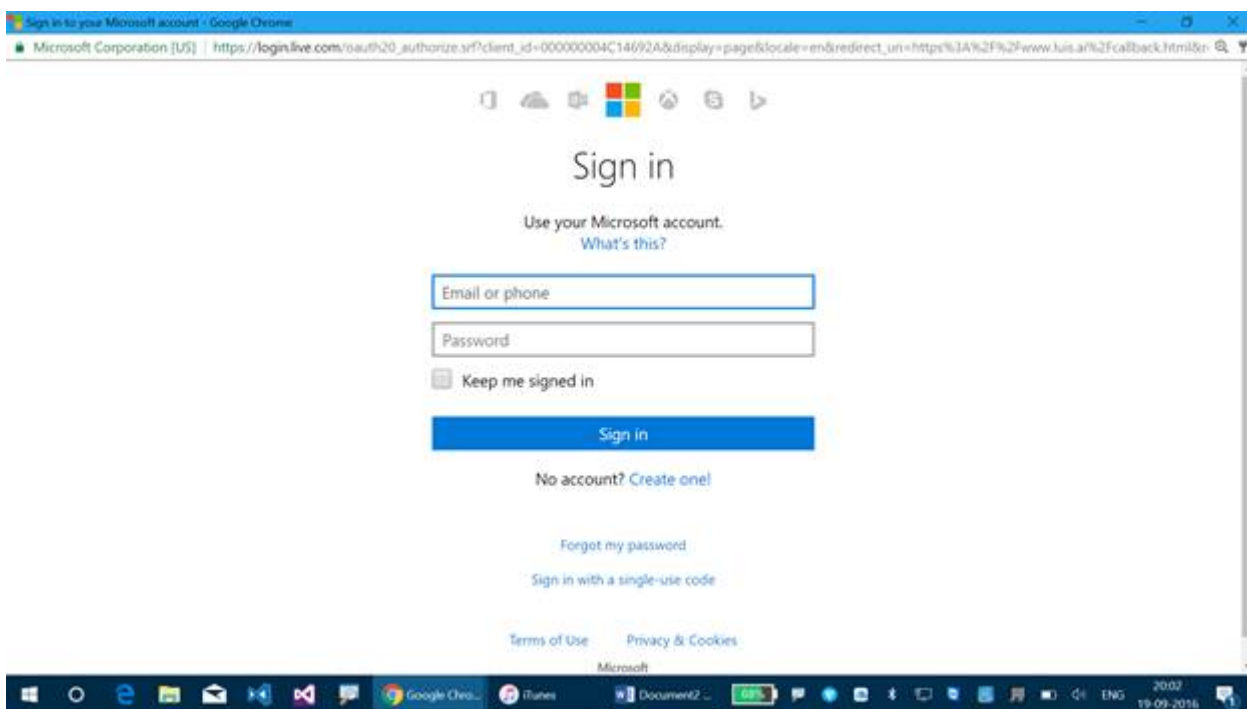
**Step 1** - Run your Web browser and sign in with your Microsoft account at [www.luis.ai](http://www.luis.ai).



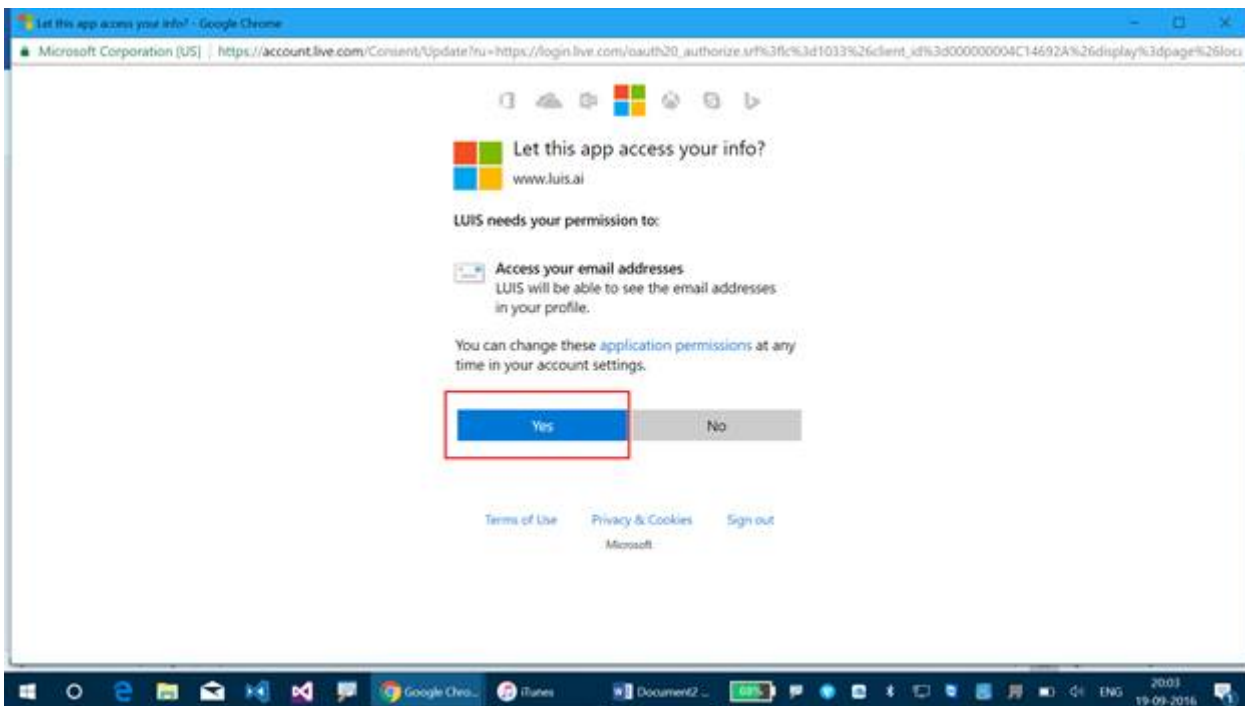
**Step 2** - Click on Sign in using a Microsoft account (most users).



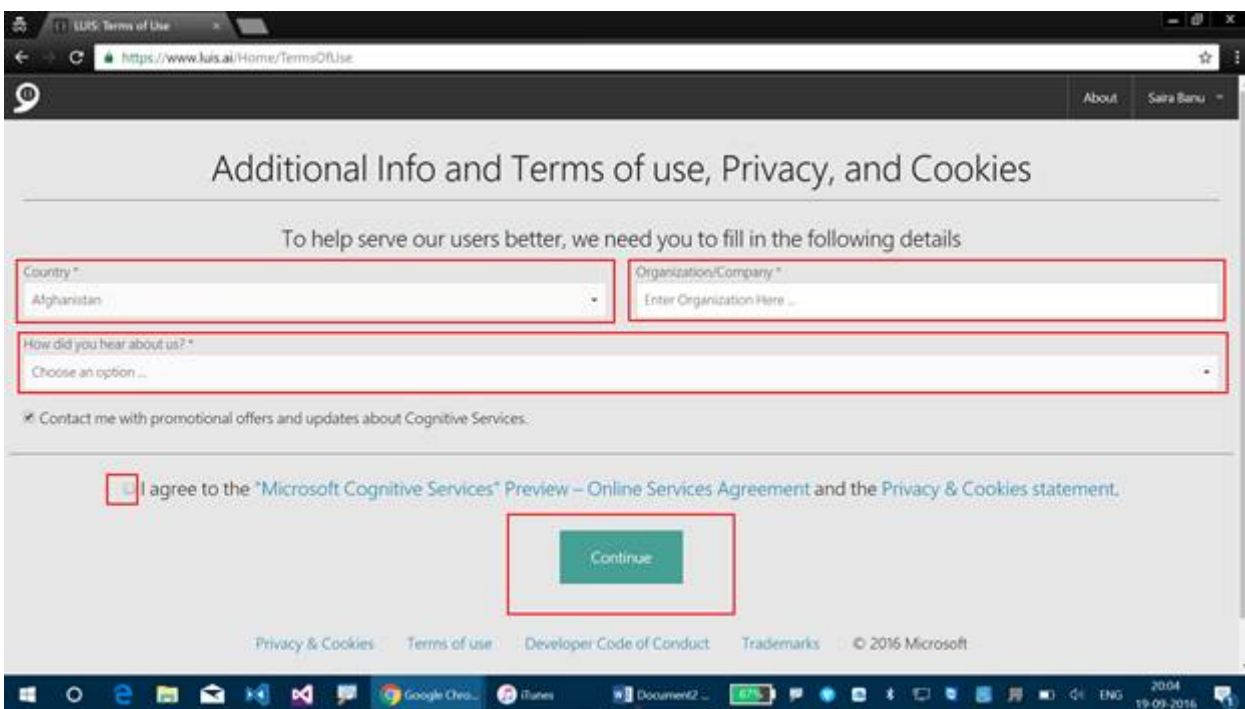
Here, sign in with your Microsoft account.



Click on "yes" to provide permission for LUIS to access your Microsoft account.

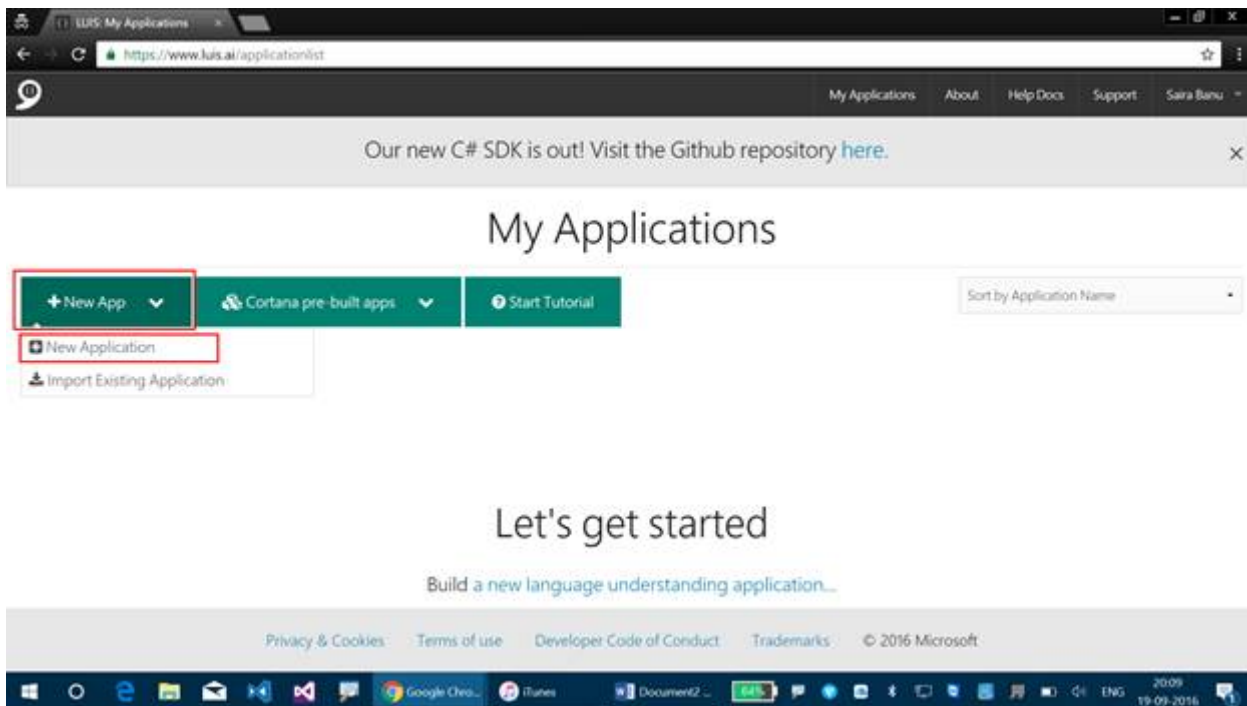


Fill in the below details of Country, Organization/Company and how did you hear about us, followed by the Continue button.

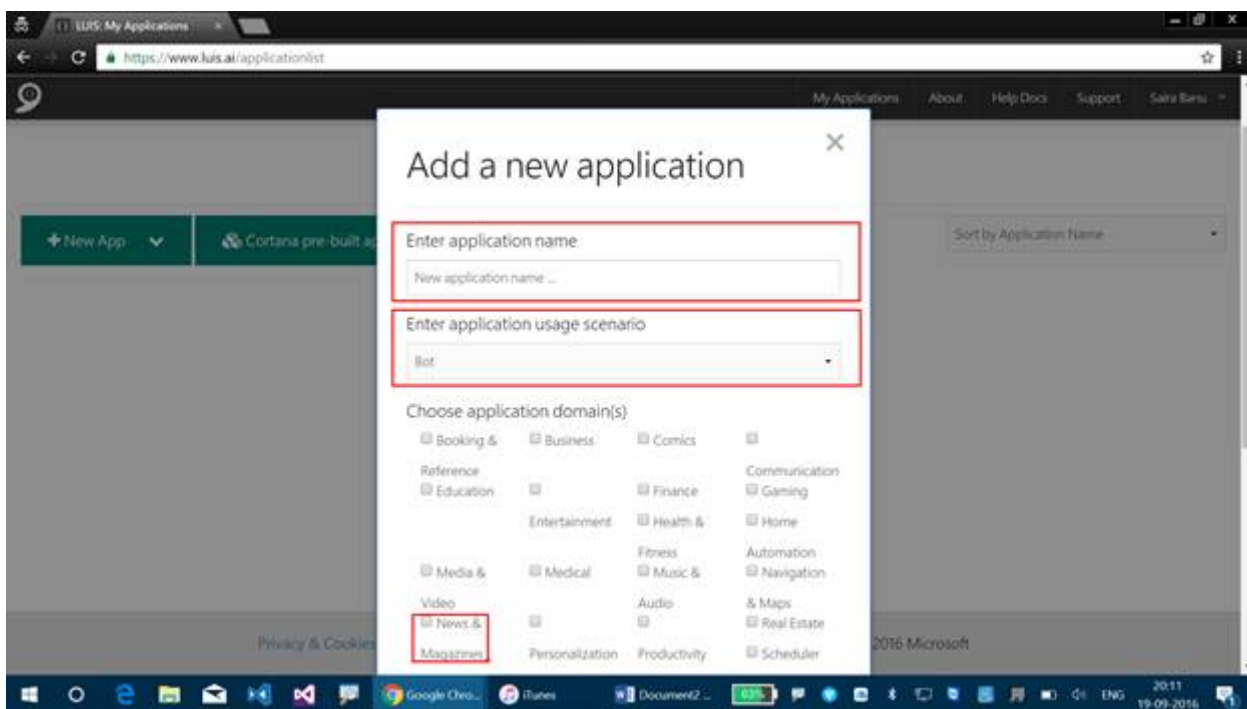


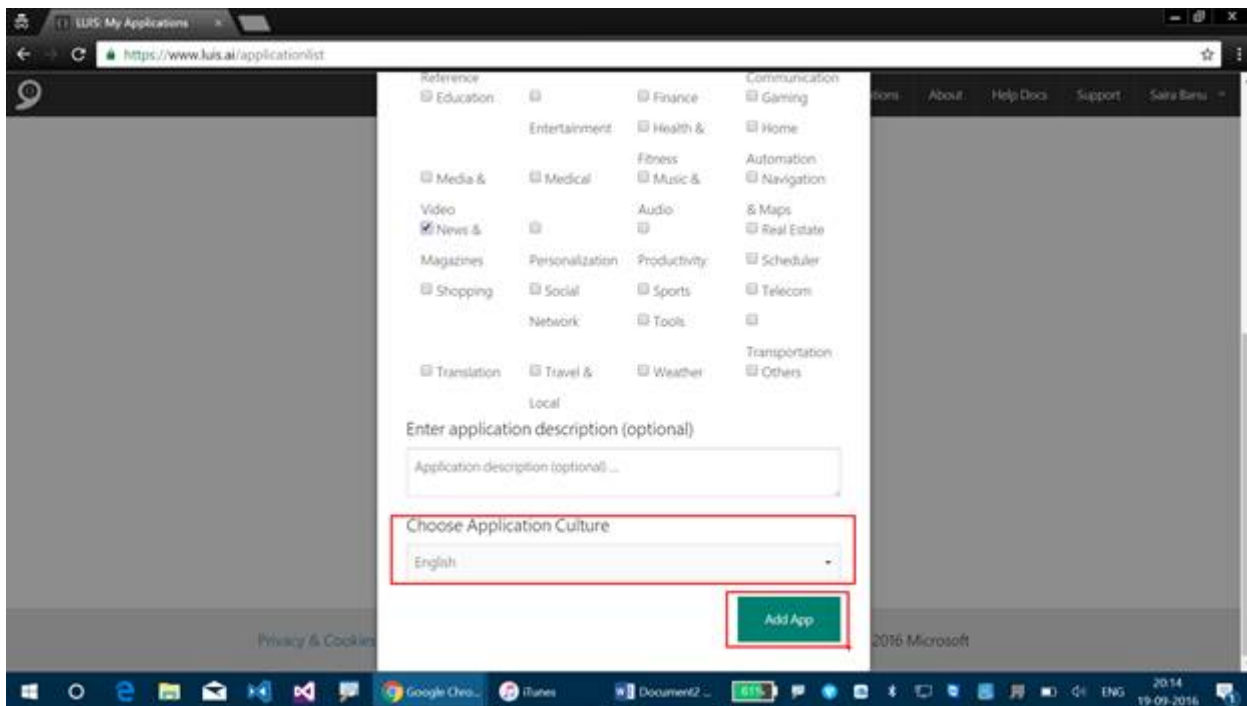
Go through the tutorials if needed or click on the Close button at the pop-up.

**Step 3** - Click on “New App” - “New Application”.



Enter application name, usage scenario, application domain, application culture as English, and click on “Add App”.



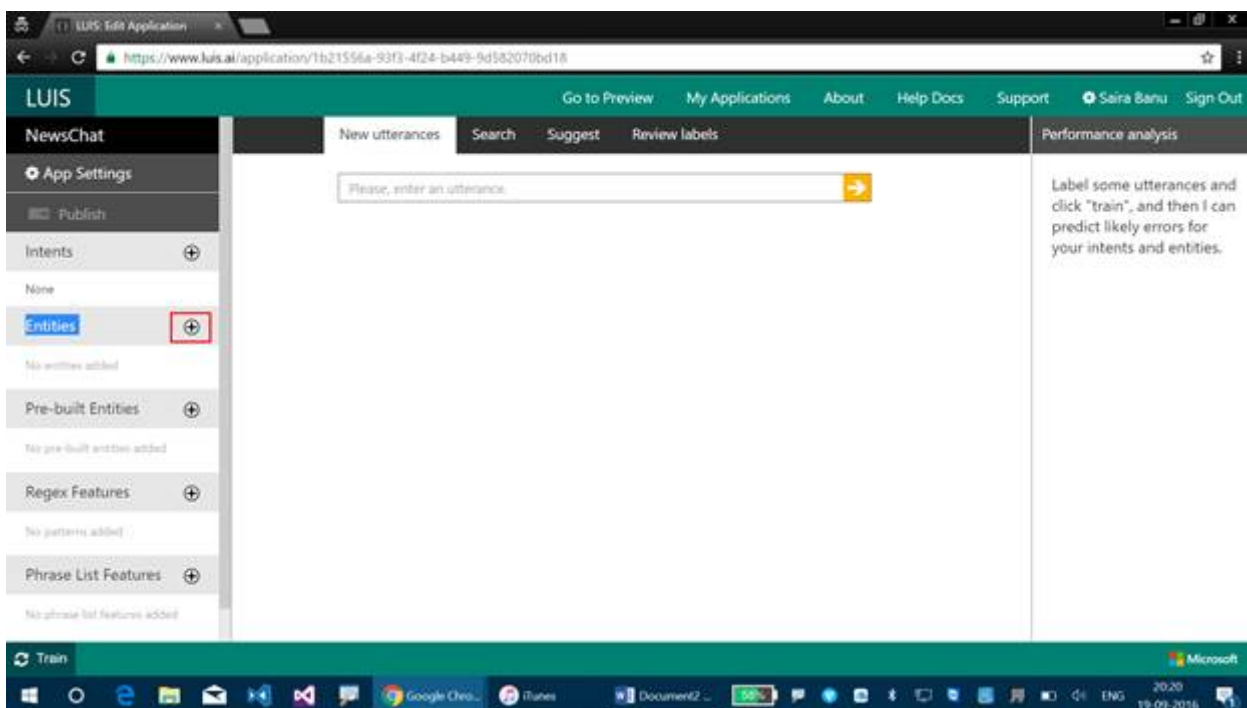


**Step 4** - Let's start working with adding entities, intents, and labels.

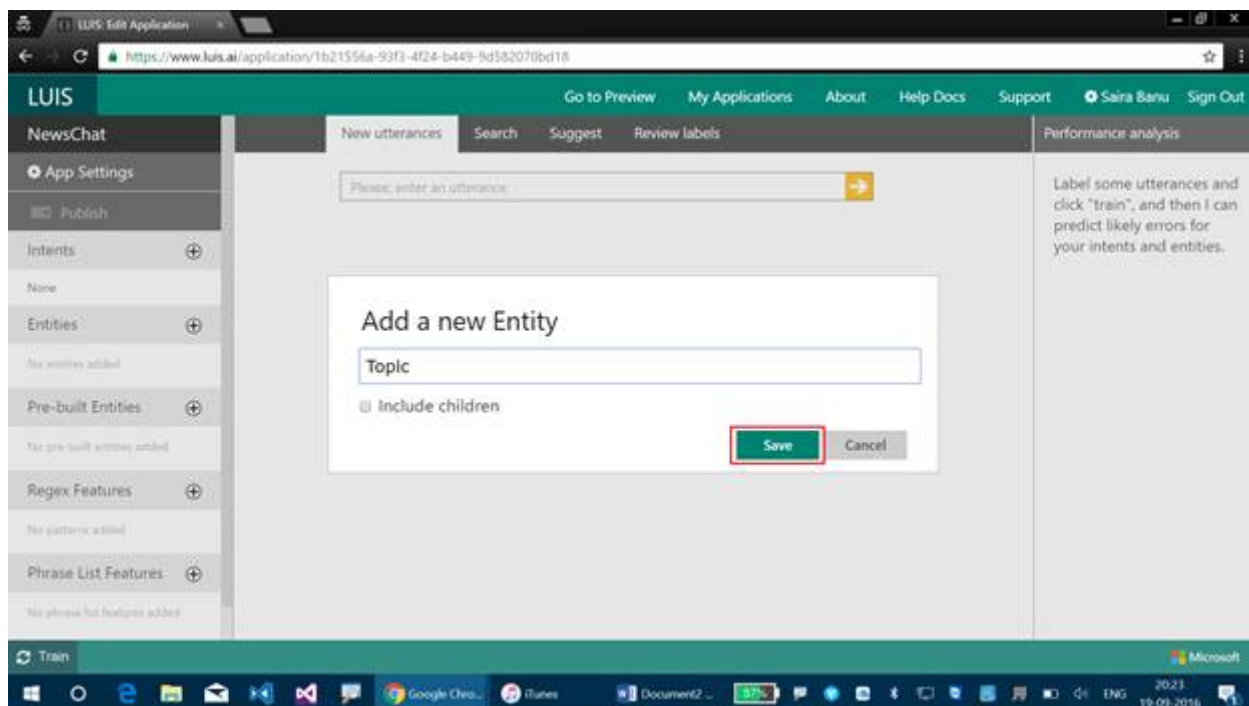
## Entities

Entities allow us to add the entity of what kind of action we are going to do. Here we will be performing two entities of getting the news and sharing it to someone. So let's create two entities over here as "topic" and "recipient".

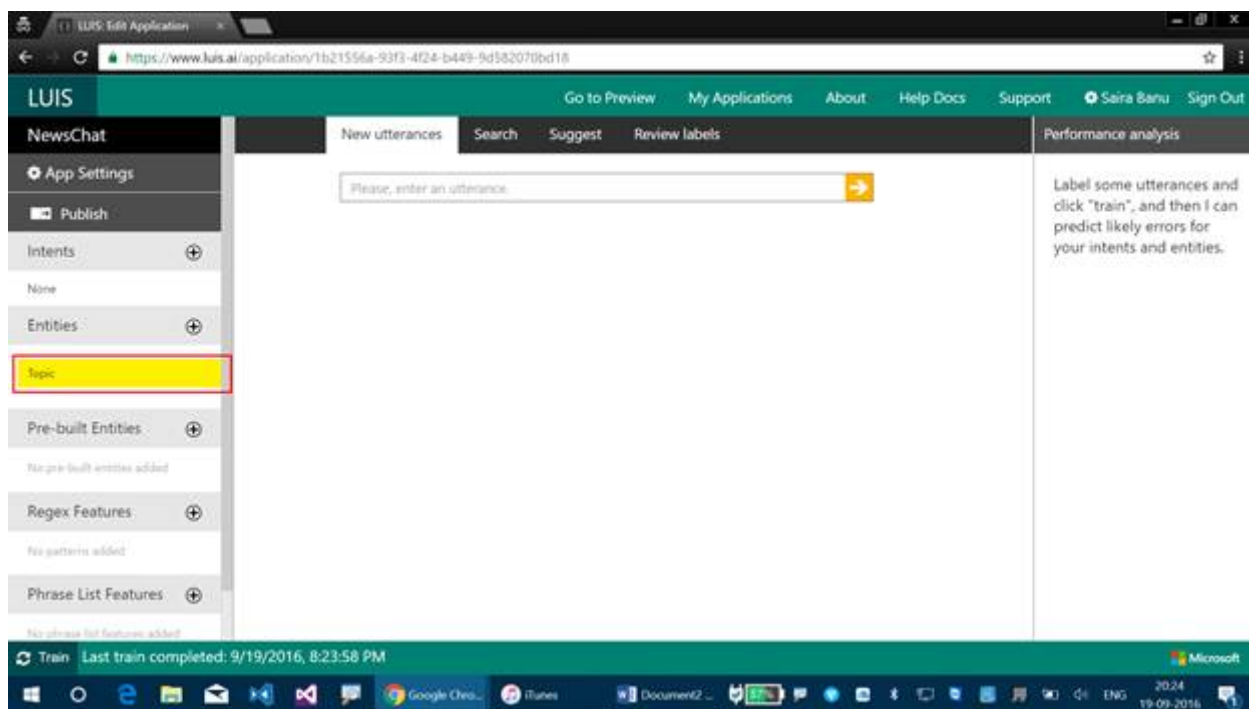
Click on "+" button at Entities at left pane.



Enter the Entity name as "Topic" and click on "Save" button.

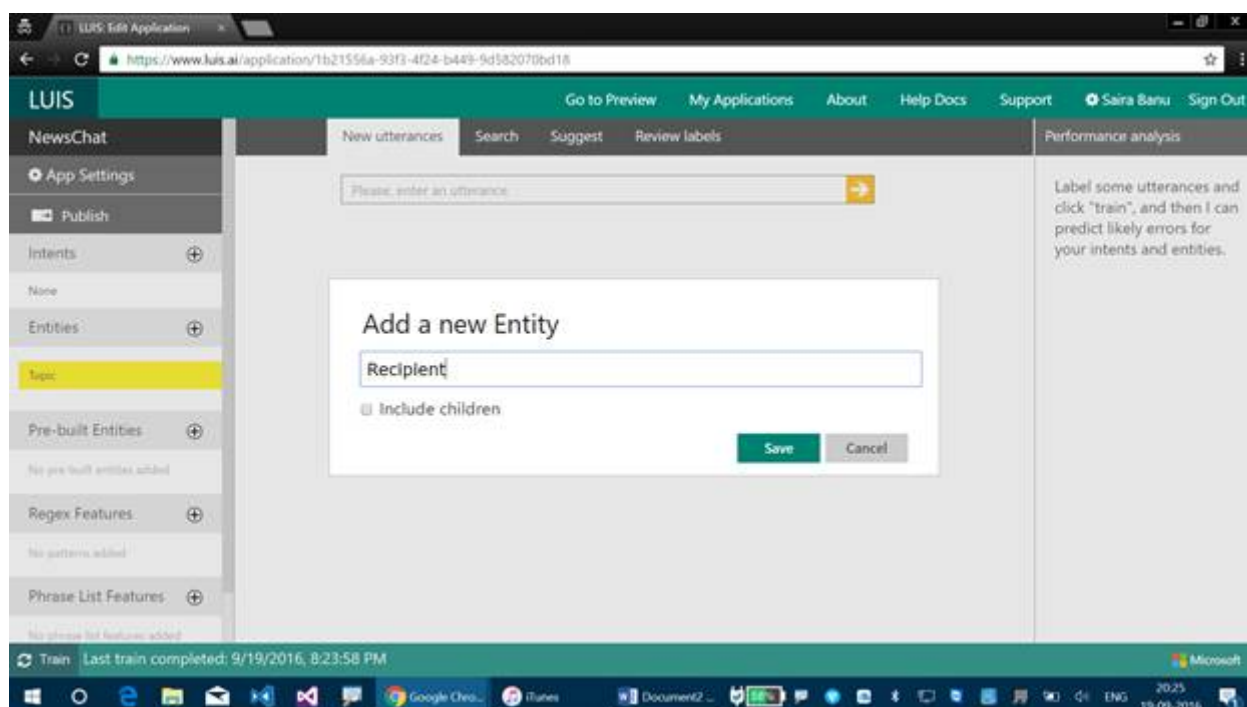


Now, you can find that Topic entity has been added.

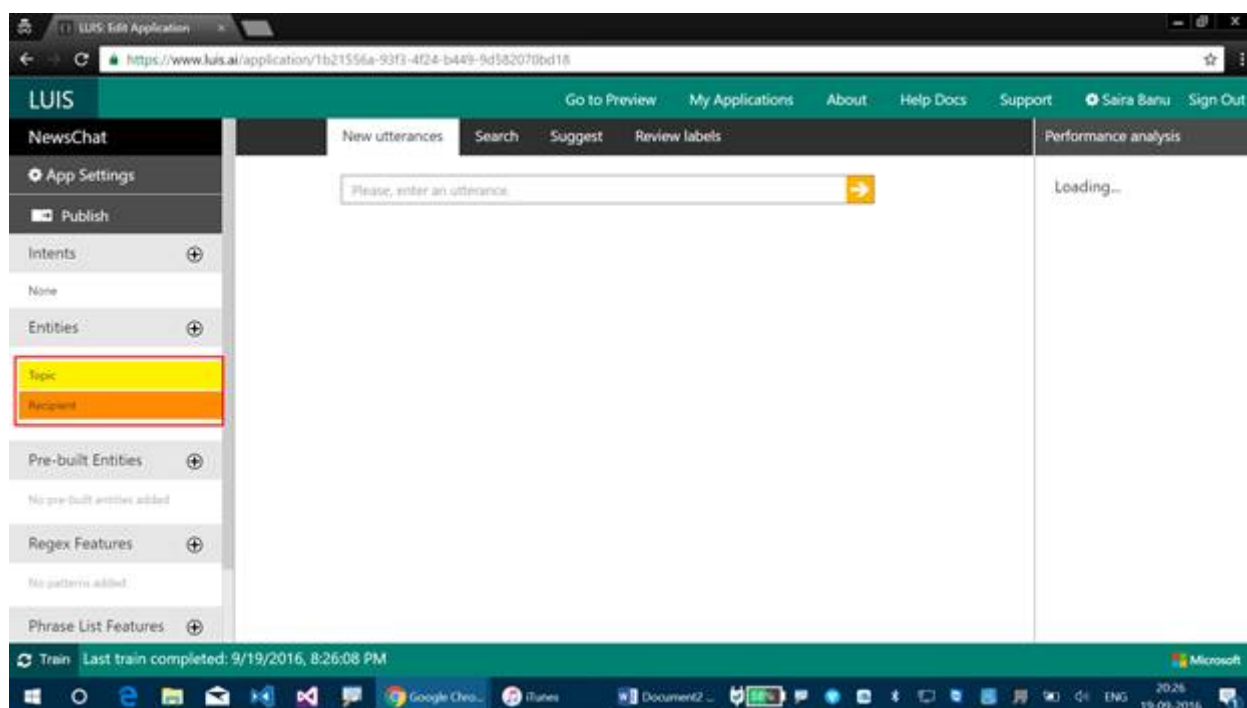


Repeat the same previous step for adding another Entity as "Recipient".





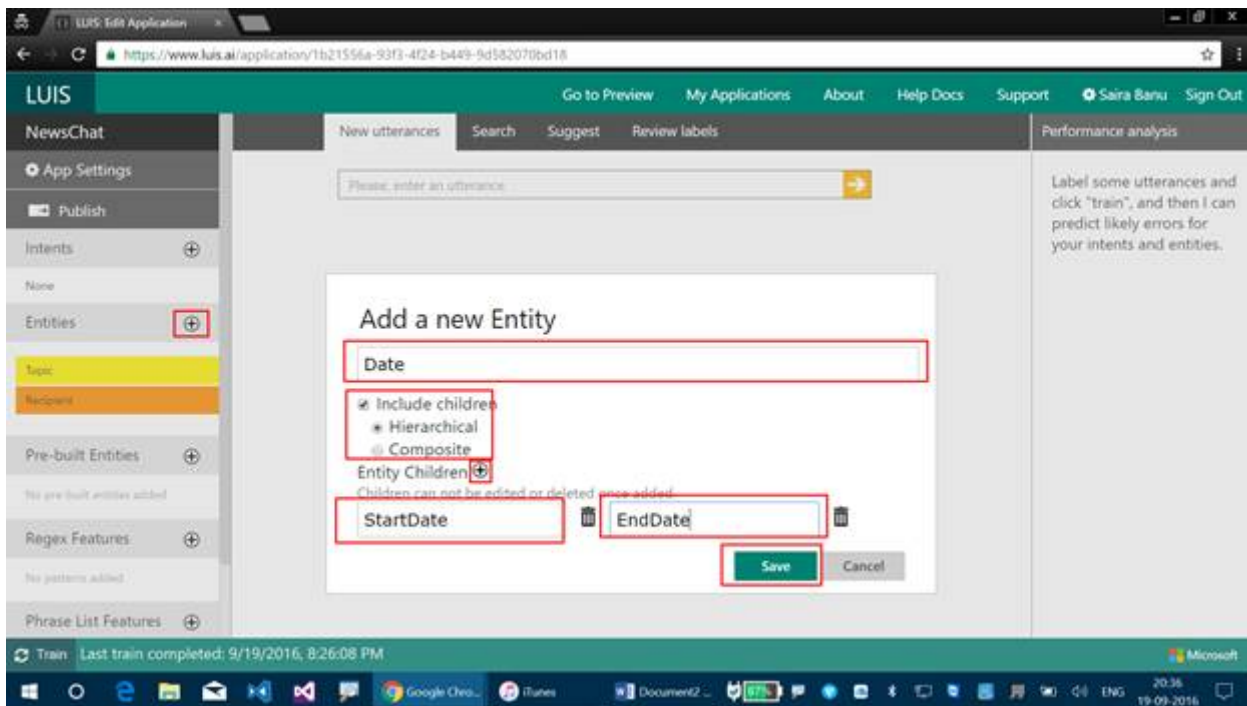
Now, you can find two entities.



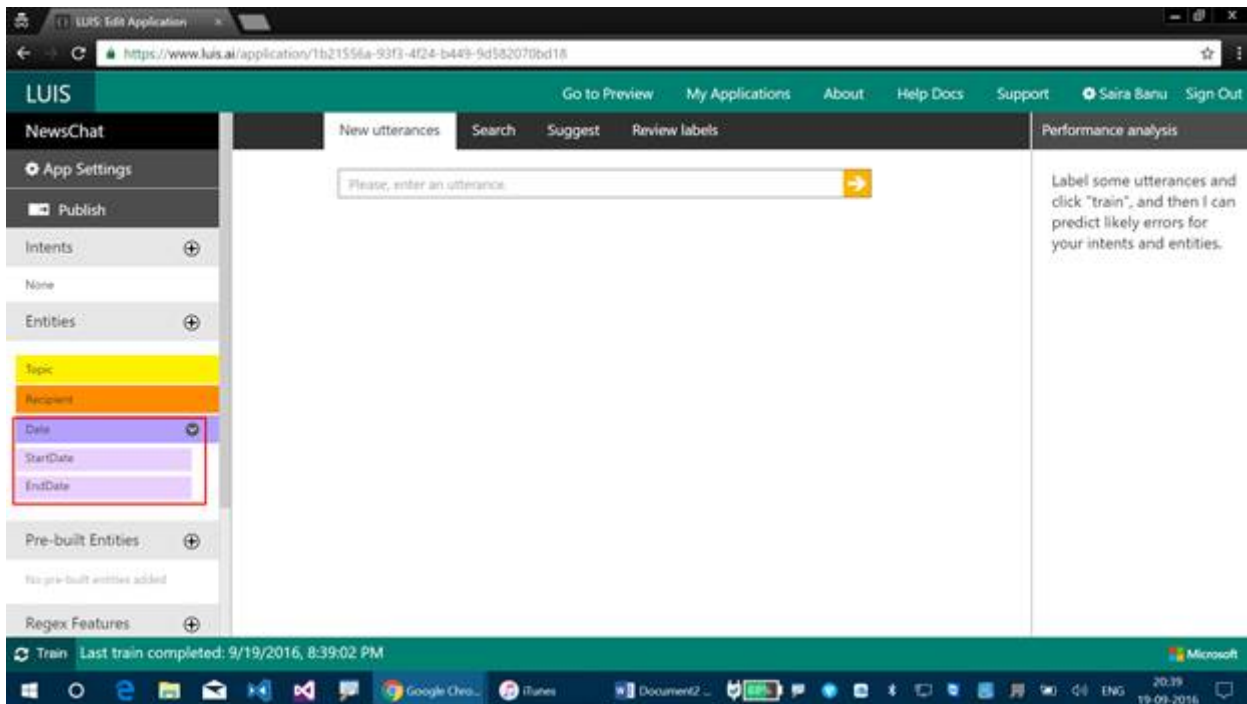
**Step 5** - Let's add Hierarchical Entities over here.

**Hierarchical Entities** - This Hierarchical Entity is a step forward from the Entity which we created before. This Hierarchical Entity will be working as a child entity for the parent entity which we have created. For example, Date is an entity and Start Date and End Date are hierarchical entities.

- Click on “+” at Entities and add an Entity named Date now.
- Check in with “Include Children” and “Hierarchical”
- Click on “+” sign at Entity Children
- Mention both the Entities over here as StartDate and EndDate.
- Click on Save now.



Here, you can find the Entities has been added.



**Step 6** - Now, we will be working with labeling children.

Let's type some utterance like "Find news about Modi published from 18 September 2016 till 19 September 2016", identify the entity "18 September 2016" with the arrow nearby to display its children, select the child entity, and click on Submit.

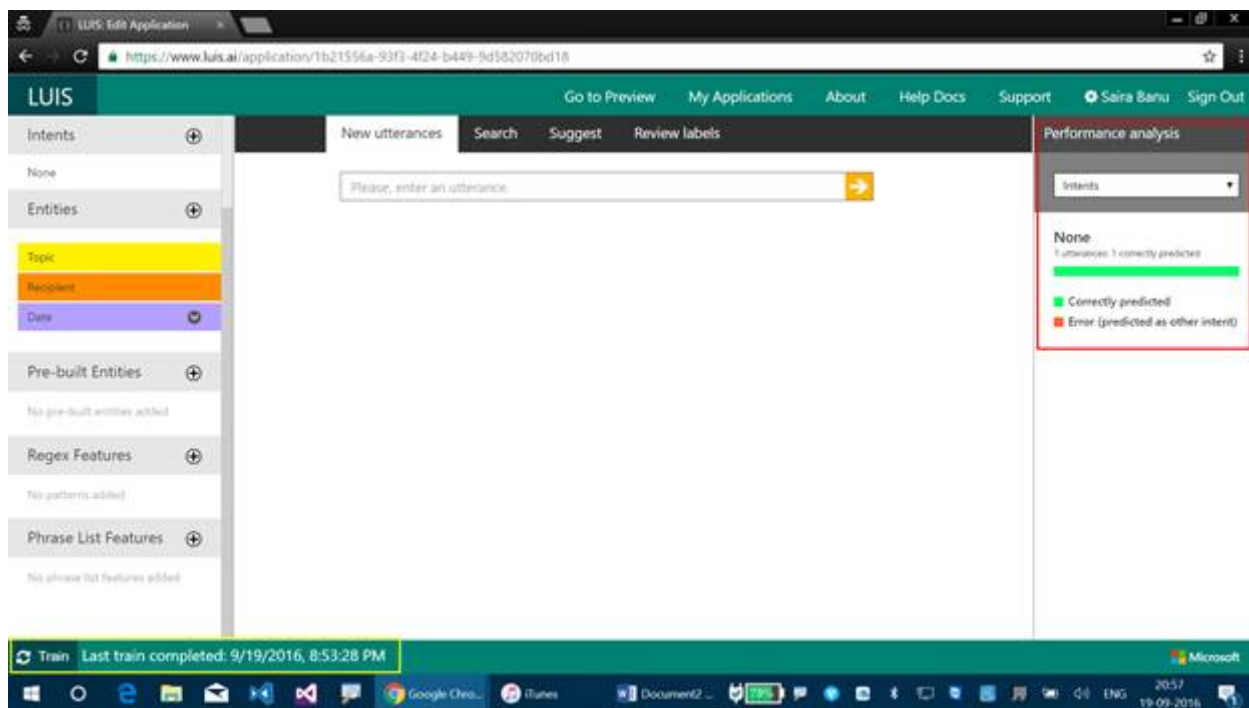


The screenshot shows the LUIS application interface in a web browser. The URL is <https://www.luis.ai/application/1b21556a-93f3-4f24-b449-9d582070bd18>. The interface has a top navigation bar with links: Go to Preview, My Applications, About, Help Docs, Support, Saira Banu, and Sign Out. On the left, there's a sidebar with 'NewsChat' and 'App Settings'. The main area is titled 'New utterances' and contains a text input field with the utterance: 'Find news about Modi publish from 18 September 2016 till 19 September 2016'. Below the input field, there's a dropdown menu showing 'None(0.84)'. A modal dialog is open, asking 'Which entity is this?' with options: Topic, Recipient, Date (selected), StartDate, and EndDate. A 'Submit' button is visible. On the right, there's a 'Performance analysis' section with a note: 'Label some utterances and click "train", and then I can predict likely errors for your intents and entities.'

The screenshot shows the LUIS application interface after the utterance has been added. The URL is the same. The main area now shows a text input field with the placeholder 'Please, enter an utterance.' and a 'Train' button. Below the input field, it says 'Utterance added successfully'. The 'Performance analysis' section on the right remains the same.

## Step 7 -Get Performance Analysis.

After entering the Utterance, click on Train at the lower left corner pane. This will help you check the performance analysis for the one we generated.



Follow my next article to work on Composite Entities and JSON response at LUIS.

Thank you for using C# Corner