

myNextBus

Objective

Build a simple iOS app that tells you when *exactly* the next transit bus or streetcar would arrive.

Background

NextBus is an online service that provides real-time information on the arrival of public transit vehicles. For example if you tried the below link in your browser, you will know when the next “*West - 506 Carlton towards High Park*” streetcar will reach Carleton and St. George TTC stop.

<http://webservices.nextbus.com/service/publicXMLFeed?command=predictions&a=ttc&stopId=00845>

You should get results similar to below, but not exact values since information change in real-time:

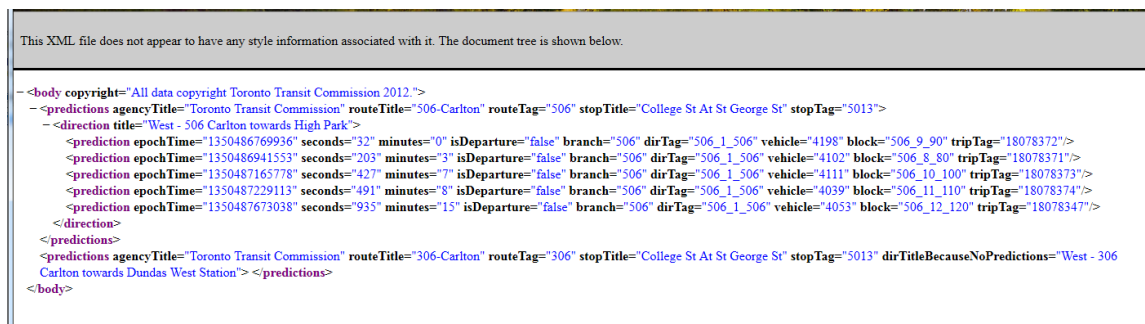


Figure 1 NextBus example response

Get started:

It will be helpful to check the API documentation for the NextBus service:

<http://www.nextbus.com/xmlFeedDocs/NextBusXMLFeed.pdf>

By completing this app you would learn how to do the following:

1. Invoke remote service via HTTP
2. Read data stream
3. Parse XML data
4. Display information
5. Basic UI building (e.g. refresh button)

Figure 2 shows a simple schematic UI for the app just as example. You can build any UI you like as long as it achieves the app objective.

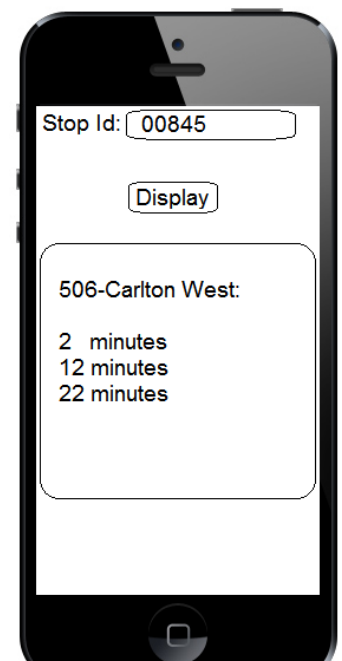


Figure 2 example of a possible simple UI

Advanced feature (optional):

If you feel like to enhance the app to be more practical, you can read the user location and then determine the nearest stop automatically then display the bus arrivals without any input from the user.

A quick tip to know the stopId manually

If you want to test your app with different TTC stop, you can easily get the *stopId* by using Google maps direction service and select your location A to be near your target stop. The below figure demonstrate how you can get the *stopId* for the St. George and College stop.

Note: The proper way to get the stop id is to use the NextBus APIs, but it requires a bit of more work so this tip to keep the task simple.

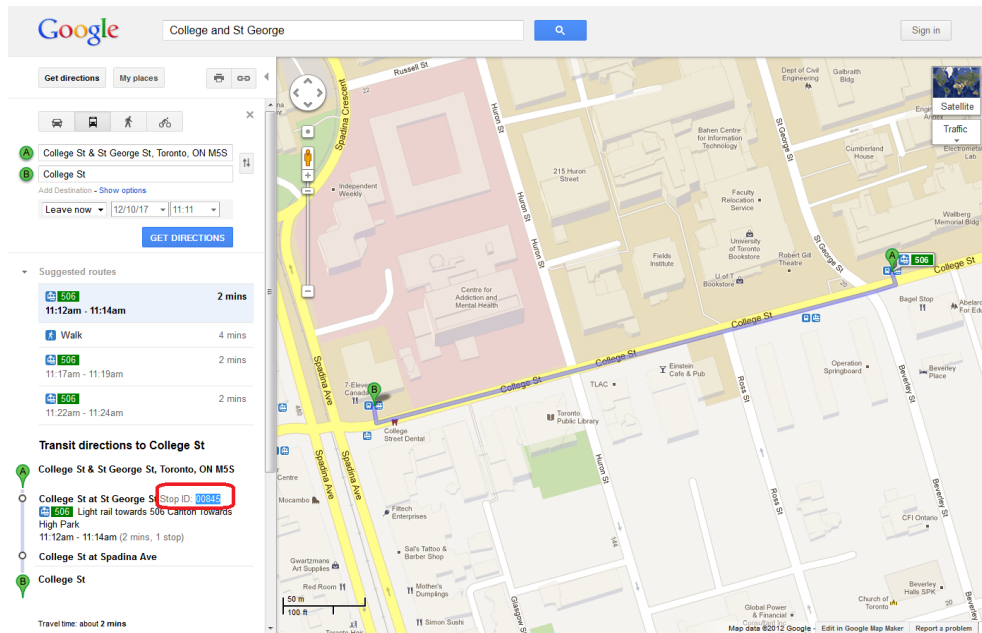


Figure 3 using Google map to get transit stopId