Microsoft

Developing and Deploying Intelligent Chat Bots

Application Insights Lab

Objectives

When your bot application is having issues, where do you start?

Application Insight Analytics is powerful to identify trends and identify root cause of problems that users maybe having. Application Insights is designed for developers to help continuously improve the availability, performance and usability of the app. The Agile way of developing bots is to iterate something fast and then use telemetry to track insights.

The aim of this lab is to demonstrate how to add Application Insights to your bot and monitor your bot application health in real time.

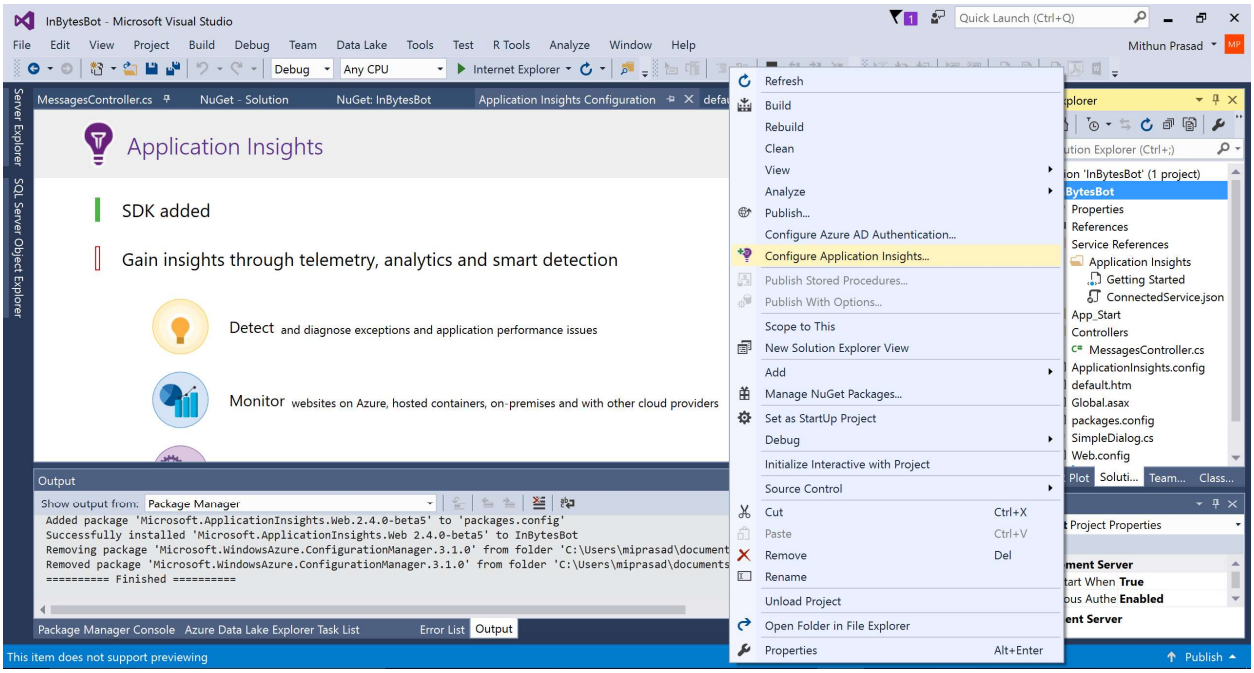
Prerequisites / Setup

For this lab, you will need

1. A working Bot Project in Visual Studio

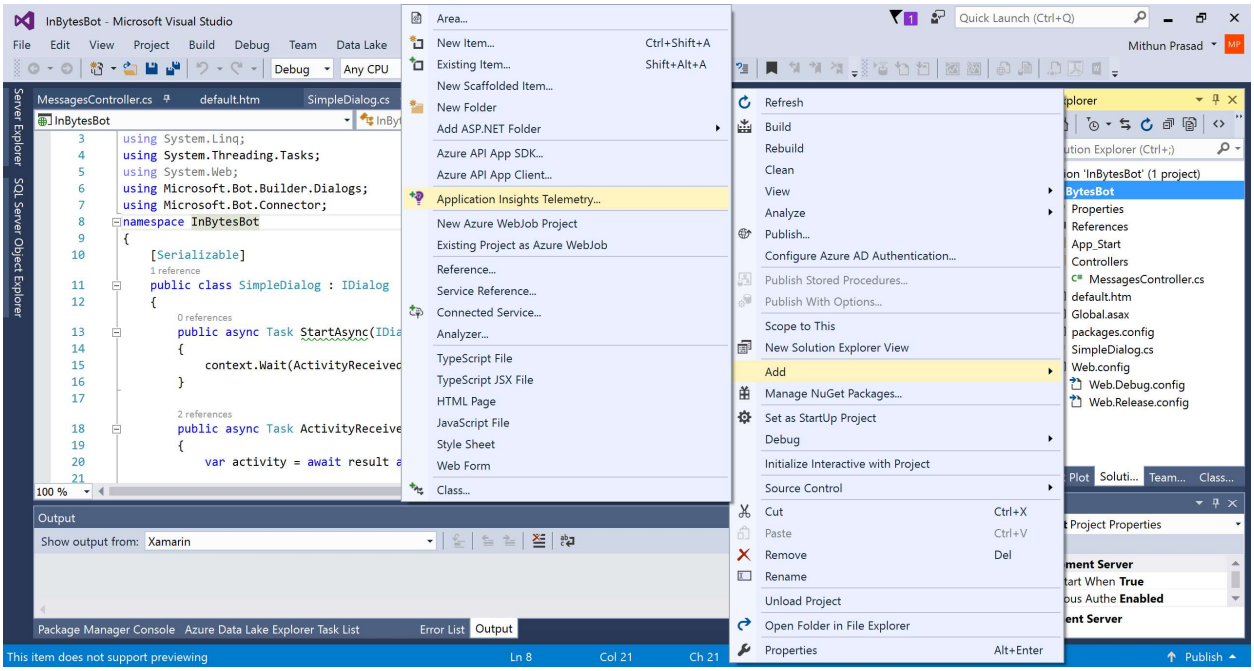
Add Application Insights

Check if "Application Insights Telemetry" is already added to your project by right clicking on the project in *Solution Explorer* as shown below. If you see *Configure Application Insights…*, Application Insights is already added to your project and you can skip to the next section (Configure Application Insights).

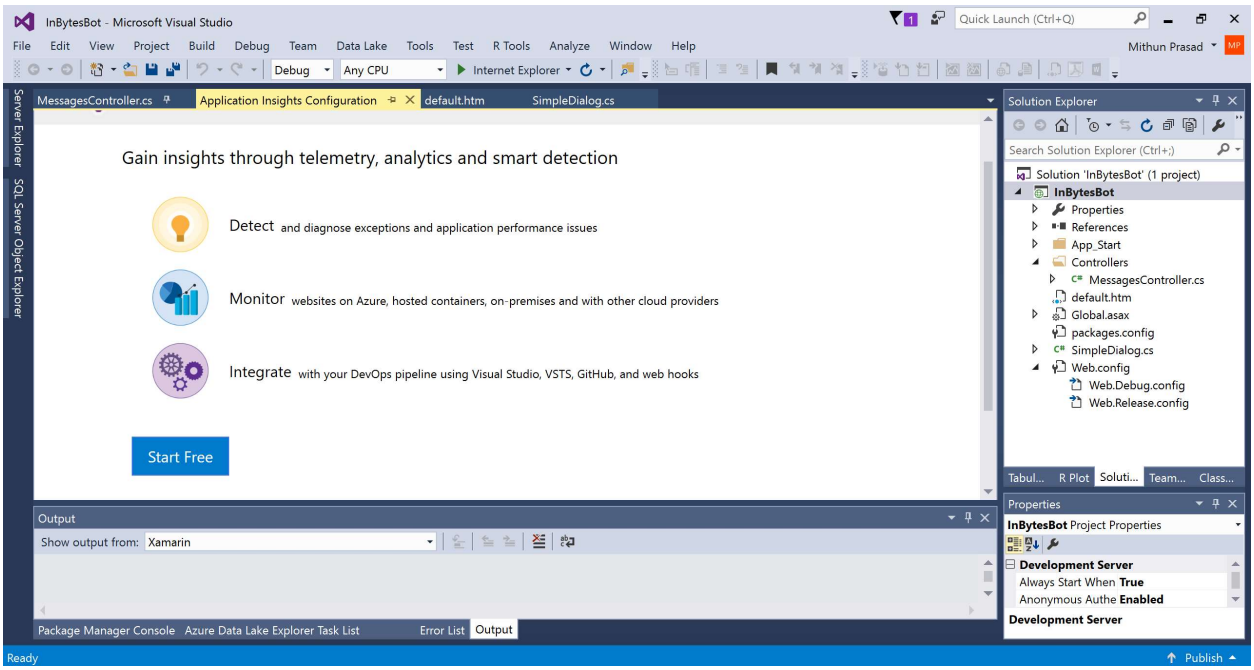


If *Configure Application Insights…* is not visible in your project, it needs to be added by following the below steps:

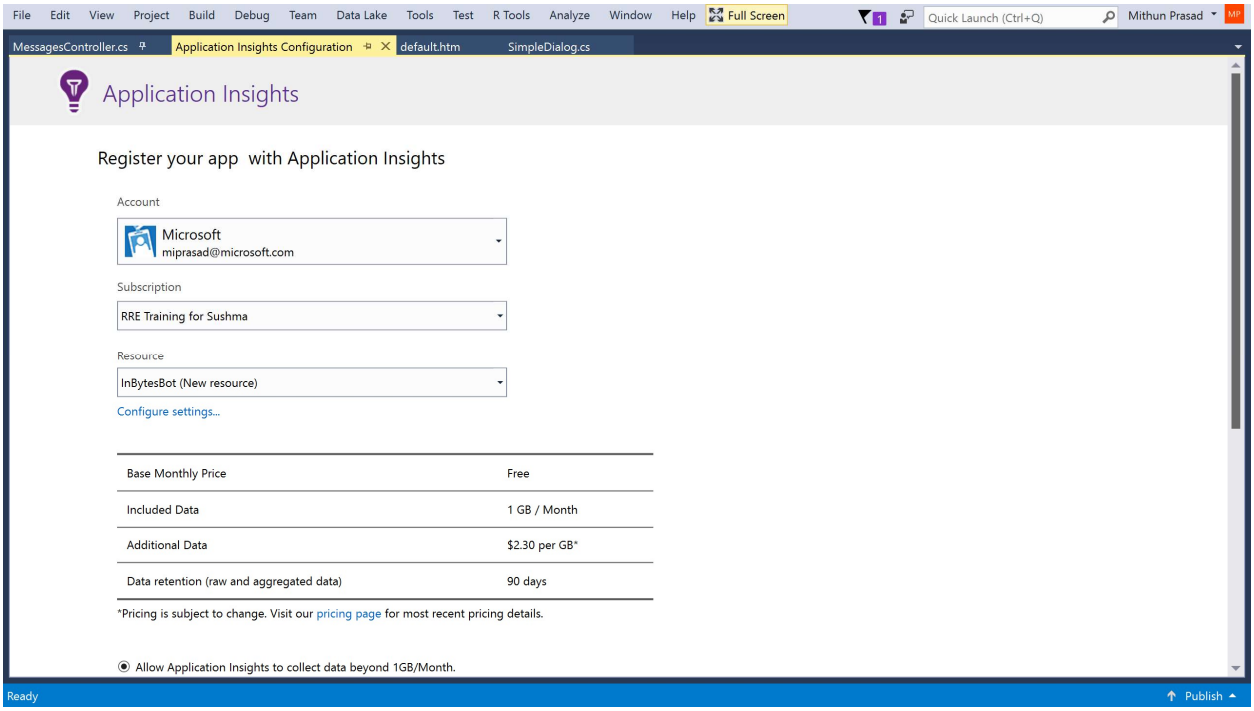
1. Right click on the project in *Solution Explorer* and select *Add->Application Insights Telemetry…*



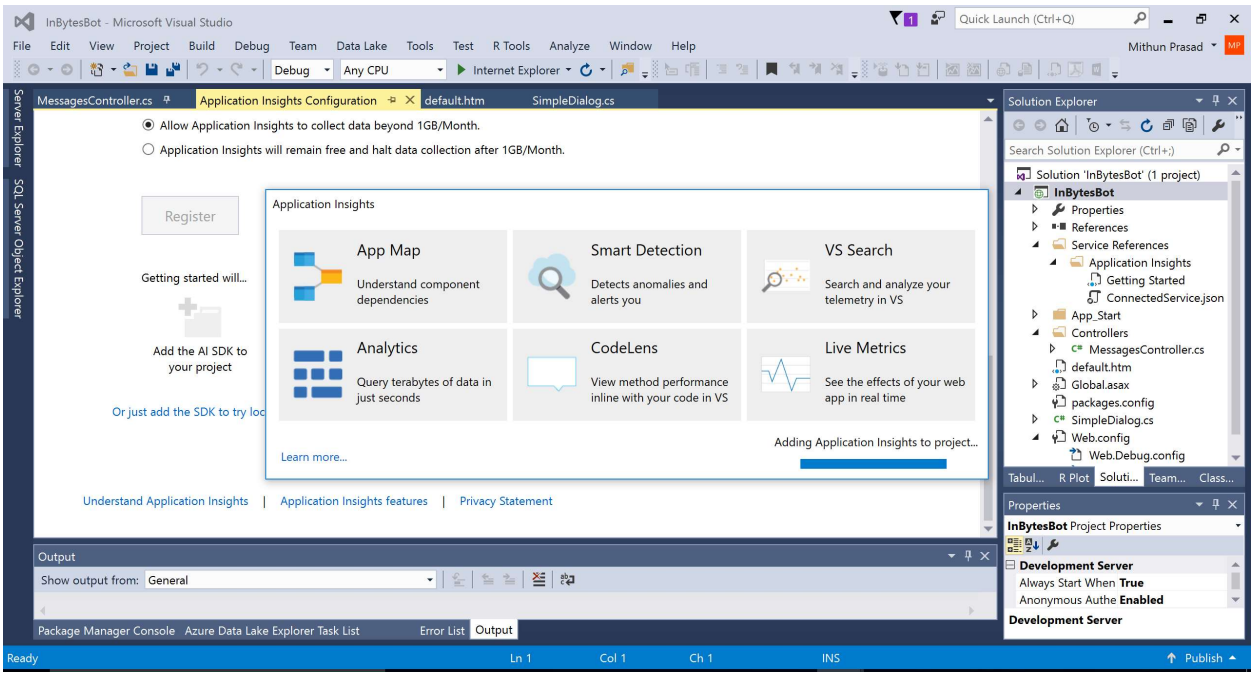
2. Select *Start Free*



3. In the next page, enter Subscription and Resource information. Leave all other selections default.

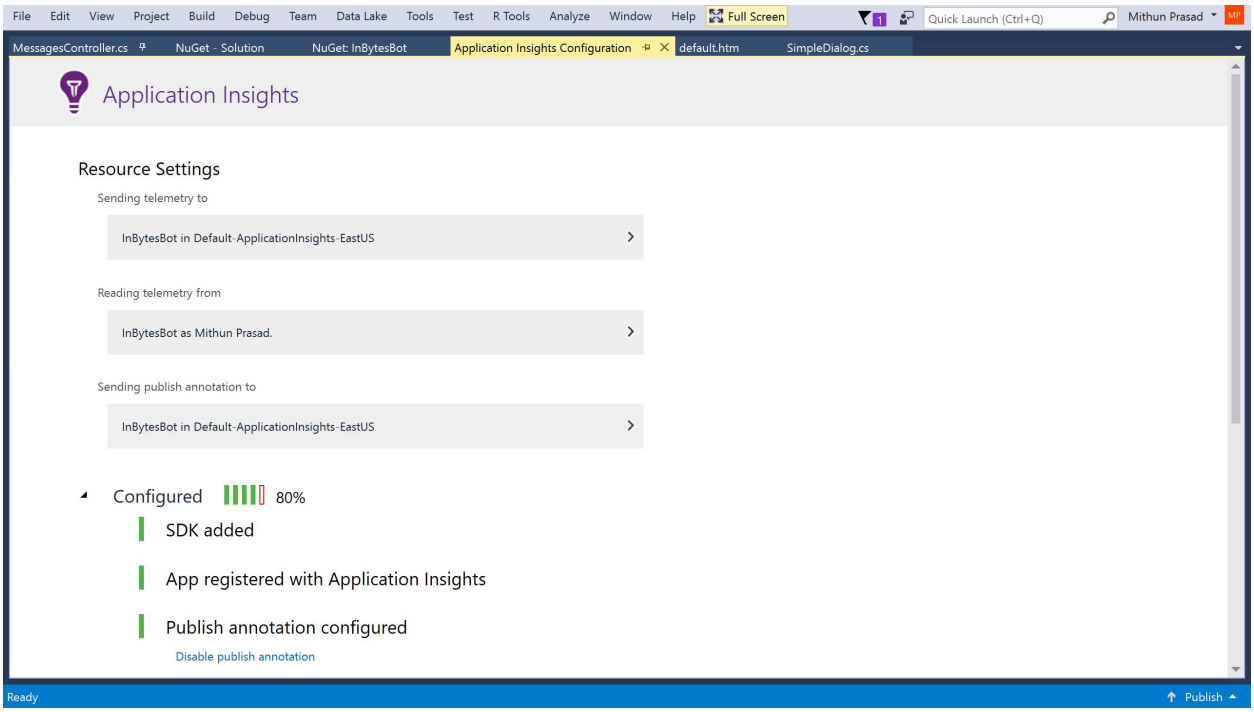


4. In the next tab, you will see progress of Application Insights added to the project.



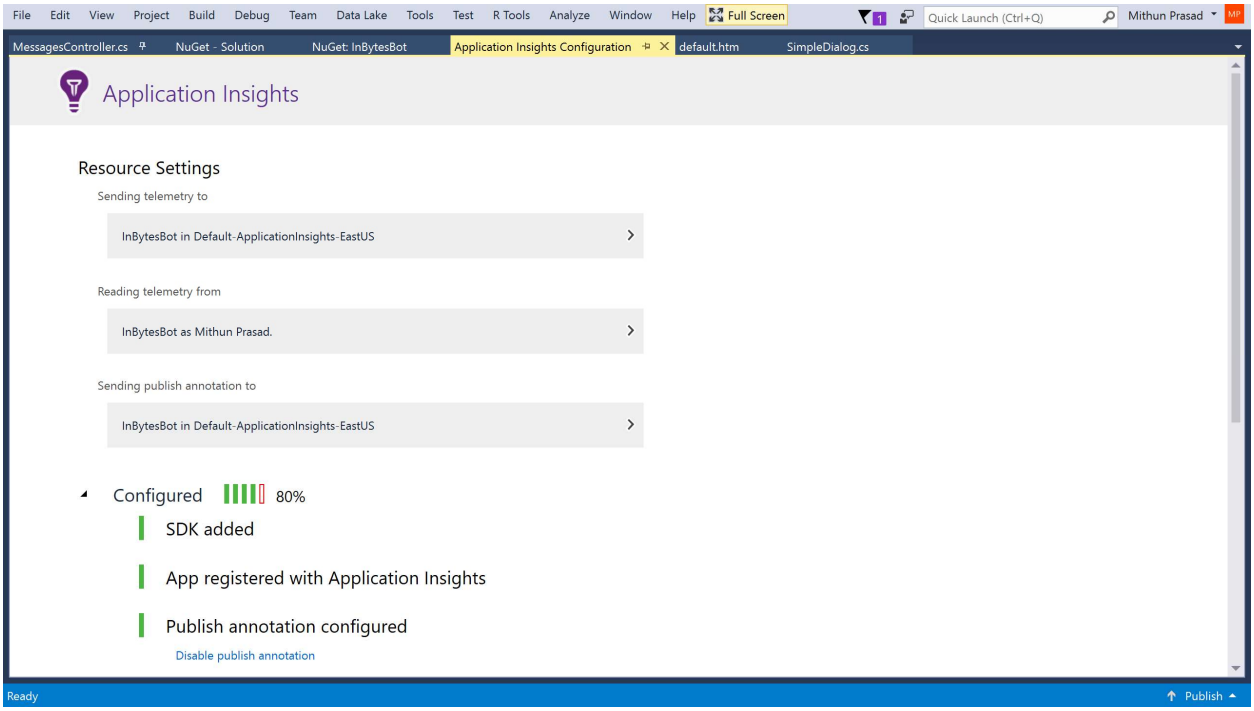
*** If you find errors with adding Application Insights to project, follow the instructions in Appendix A. It is quite likely that you have components that need to be updated.

5. The below image indicates that Application Insights have been configured successfully.

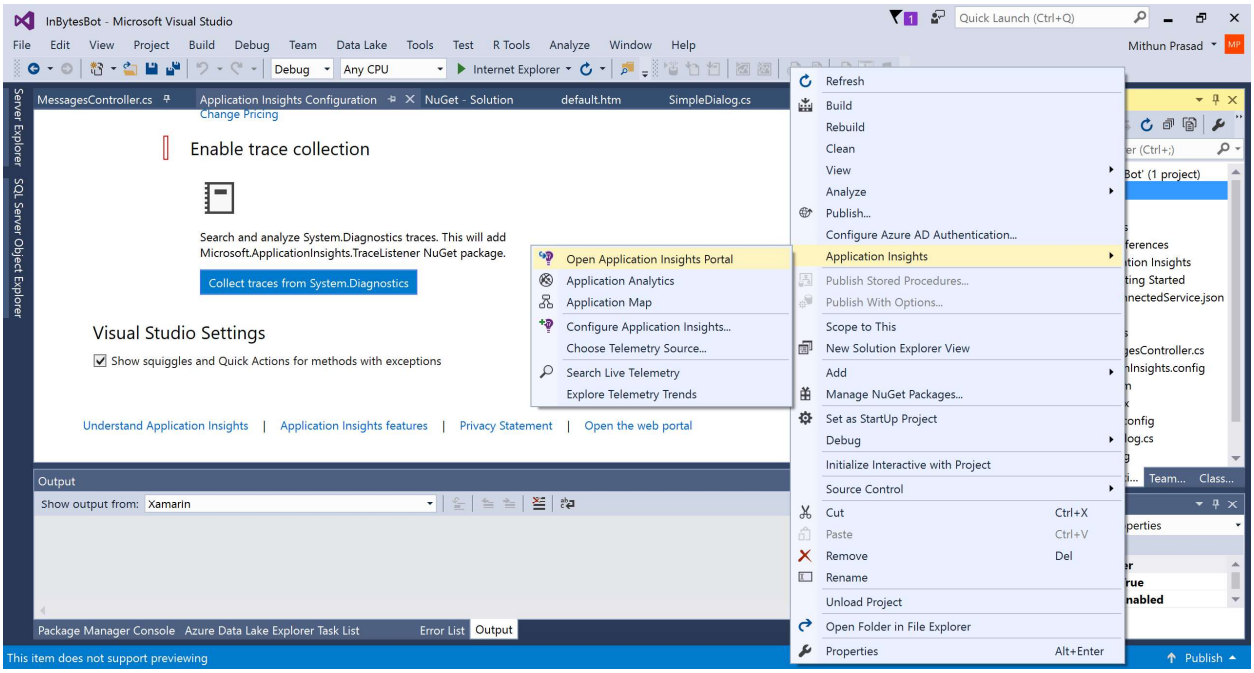


Configure Application Insights

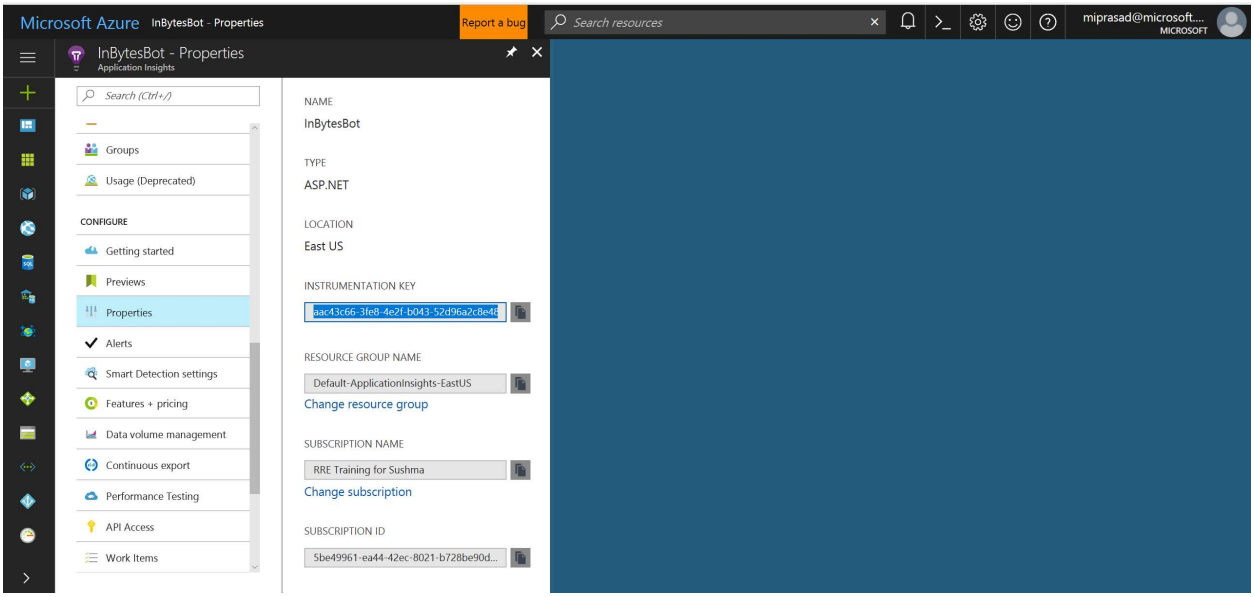
On right-clicking the project in Solution Explorer, if you see *Configure Application Insights…*, you will not need to perform the last section steps. Ensure you see the below Configuration page to confirm that the Application Insights are configured.



1. Right click on the project in Solution Explorer and select *Application Insights -> Open Application Insights Portal*. This will take you to the portal.

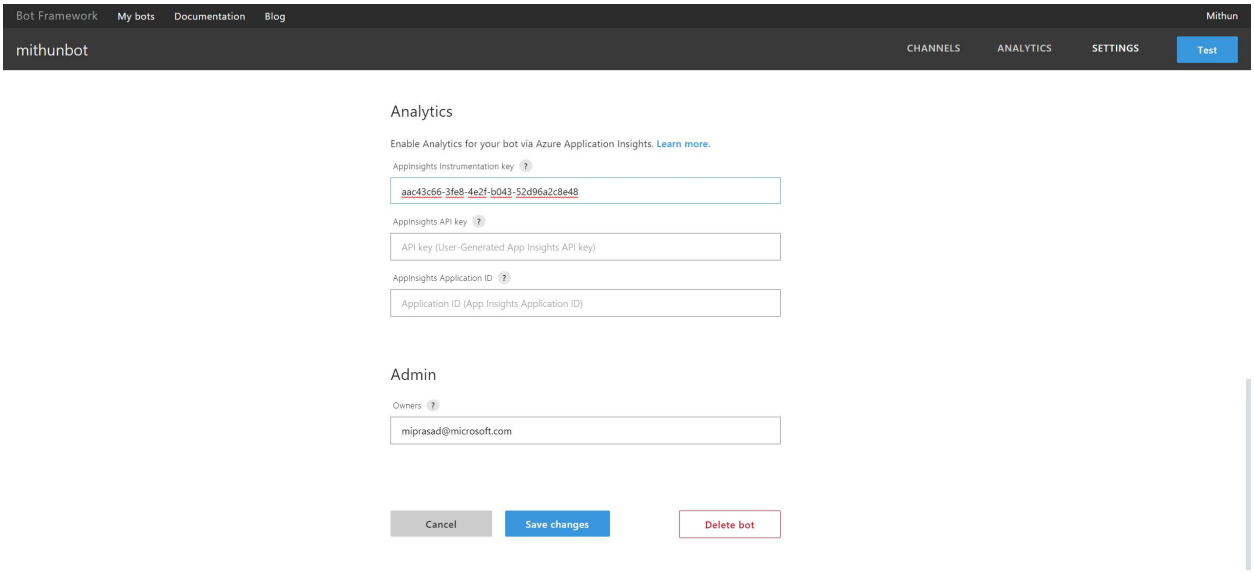


2. The Application Insights blade for the Bot application would look as follows. Select *Properties* and copy the *INSTRUMENTATION KEY*.



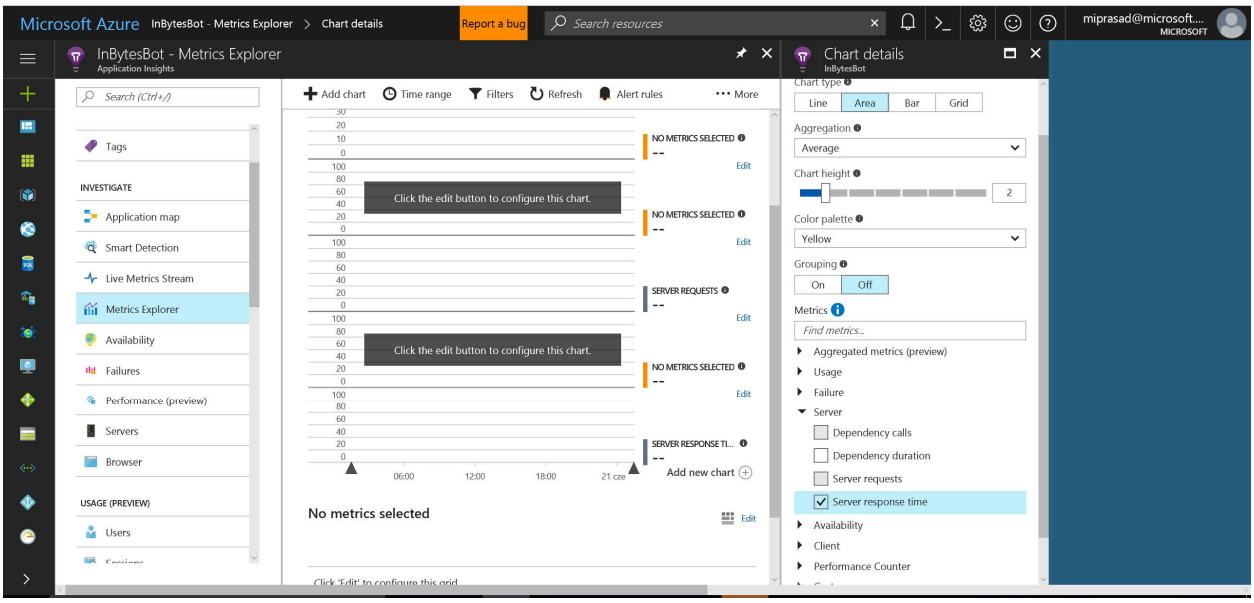
3. The key will need to be copied to your existing bot from My Bots section - https://dev.botframework.com/

Click Edit and scroll to the end as illustrated in the image below. You will find the Instrumentation Key text box. Update the key and save.


Bot Framework
My bots
Documentation
Blog
Mithun
mithunbot
CHANNELS
ANALYTICS
SETTINGS
Test
Analytics
Enable Analytics for your bot via Azure Application Insights. Learn more.
AppInsights Instrumentation key
aac43c66-3fe8-4e2f-b043-52d96a2c8e48
AppInsights API key
API key (User-Generated App Insights API key)
AppInsights Application ID
Application ID (App Insights Application ID)
Admin
Owners
miprasad@microsoft.com
Cancel
Save changes
Delete bot

Metrics

In the Application Insights blade for the Bot application, select *Metrics Explorer*. In the *Chart details*, select metrics to add for monitoring. For example, select *Server response time* to monitor this metric.

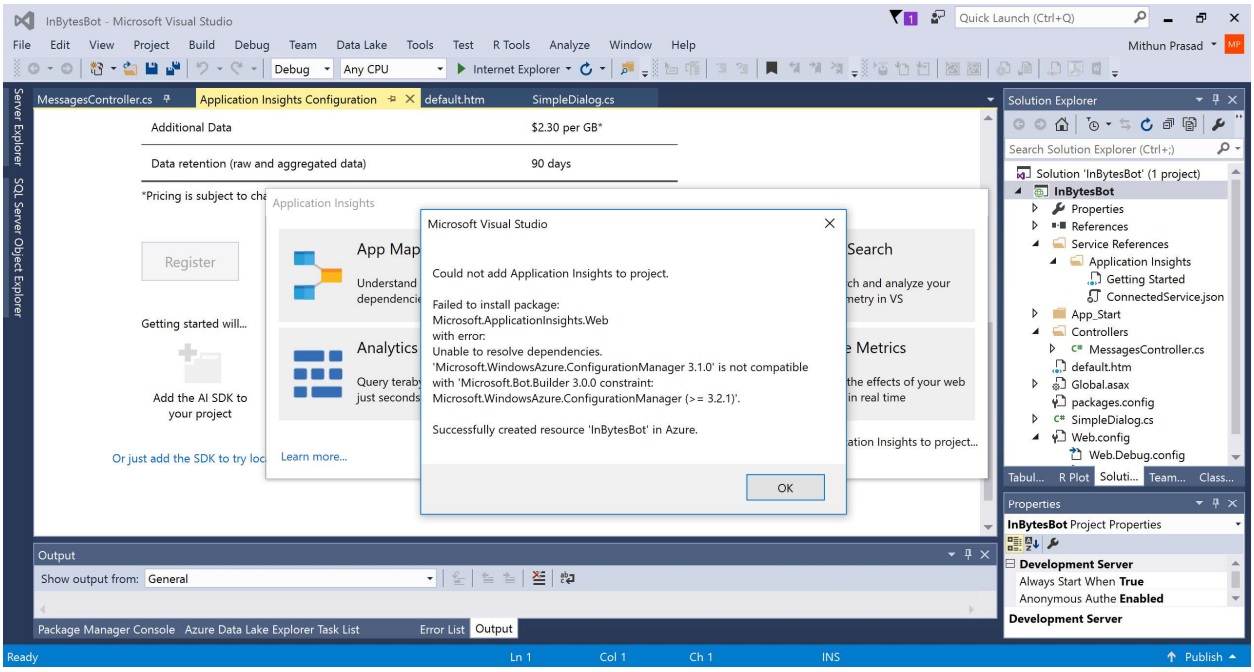


Over time, you should start receiving telemetry data in your Application Insights portal.

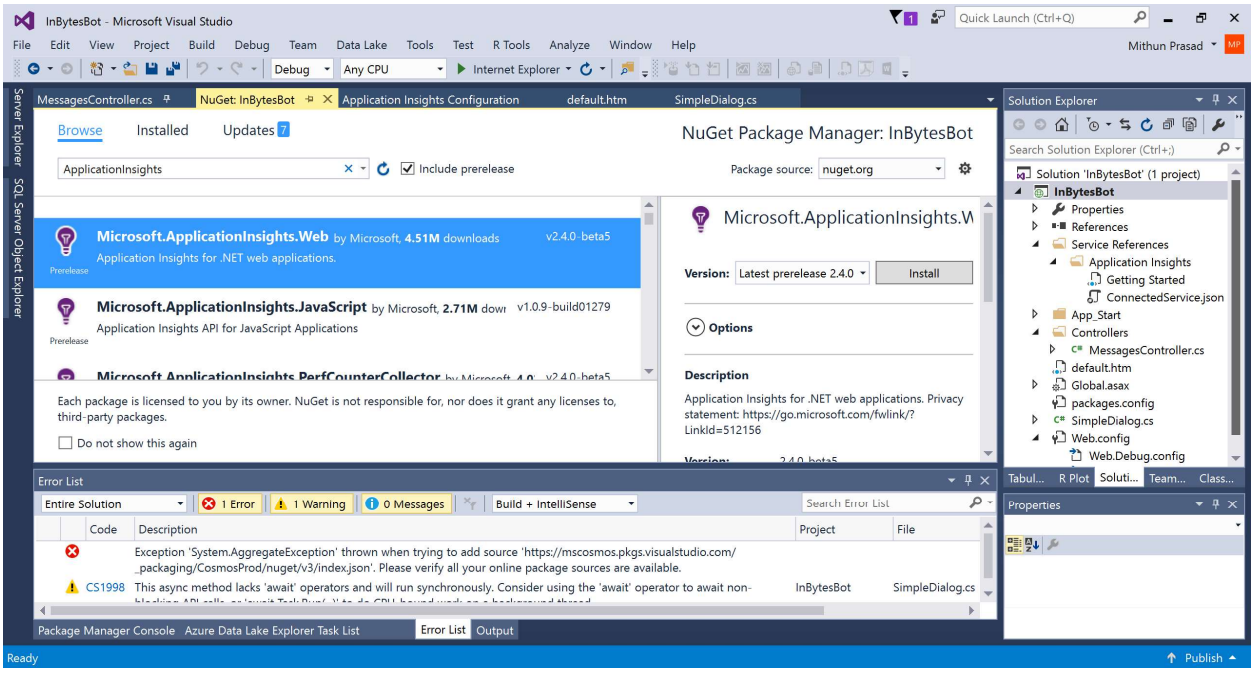
Appendix A

Add Application Insights

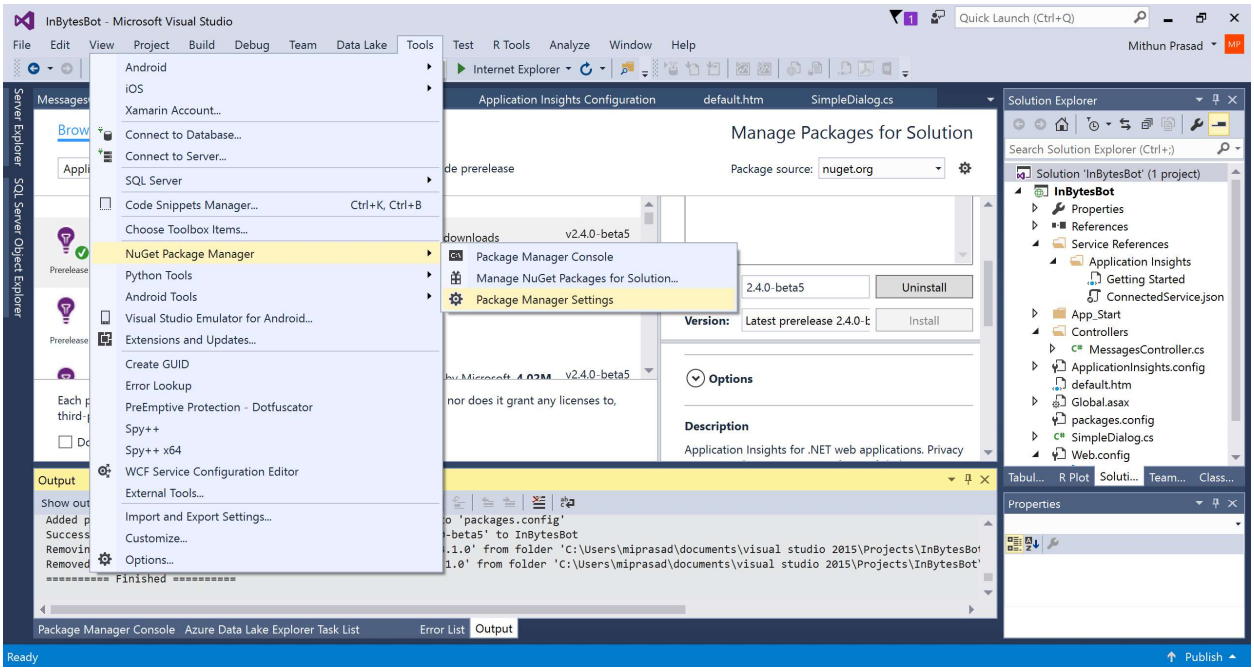
When adding Application Insights, if you see the below error, it's because the package Microsoft.ApplicationInsights.Web has not been installed.

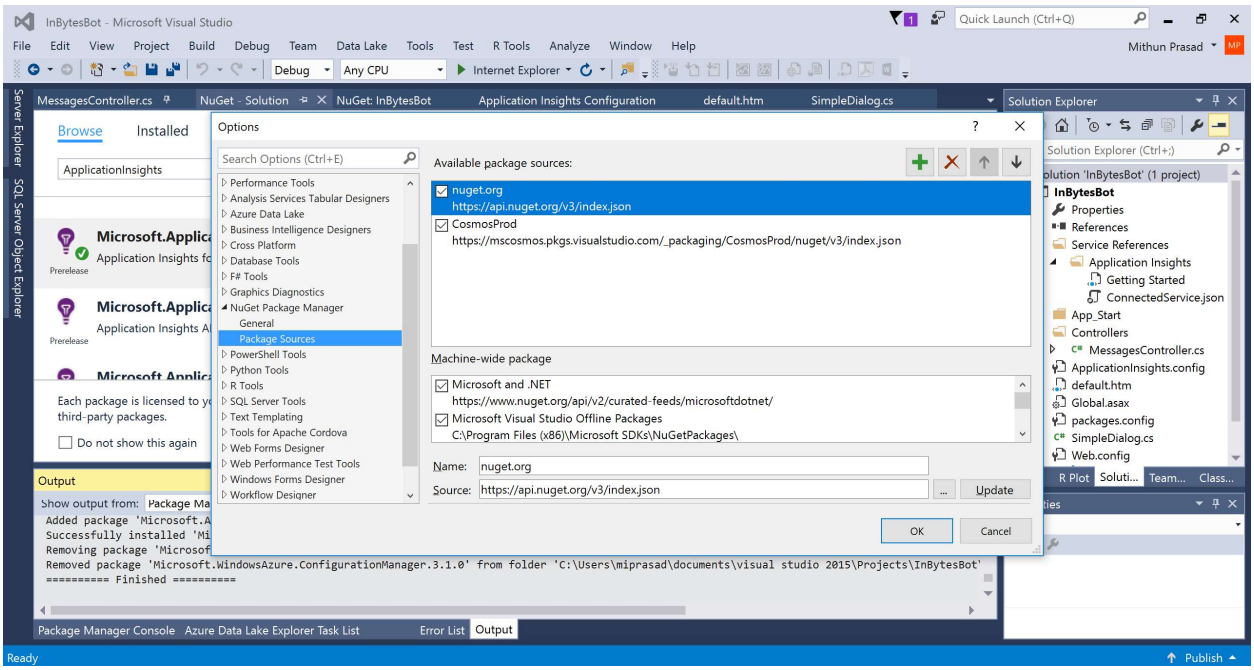


1. Right click on the Solution in the Solution Explorer and select *Manage NuGet Packages for Solution…*
2. Search for ApplicationInsights in the Browse window and Install Microsoft.ApplicationInsights.Web



3. If the above error occurs, change the *Package Manger Settings* as shown below.




InBytesBot - Microsoft Visual Studio
Quick Launch (Ctrl+Q)
File Edit View Project Build Debug Team Data Lake Tools Test R Tools Analyze Window Help
Mithun Prasad
Debug
Any CPU
Internet Explorer
MessagesController.cs
NuGet - Solution
NuGet: InBytesBot
Application Insights Configuration
default.htm
SimpleDialog.cs
Solution Explorer
Browse
Installed
ApplicationInsights
Microsoft.Applica
Application Insights fo
Prerelease
Microsoft.Applica
Application Insights A
Prerelease
Each package is licensed to y
third-party packages.
Do not show this again
Options
Search Options (Ctrl+E)
Performance Tools
Analysis Services Tabular Designers
Azure Data Lake
Business Intelligence Designers
Cross Platform
Database Tools
F# Tools
Graphics Diagnostics
NuGet Package Manager
General
Package Sources
PowerShell Tools
Python Tools
R Tools
SQL Server Tools
Text Templating
Tools for Apache Cordova
Web Forms Designer
Web Performance Test Tools
Windows Forms Designer
Workflow Designer
Available package sources:
nuget.org
https://api.nuget.org/v3/index.json
CosmosProd
https://mscosmos.pkgs.visualstudio.com/_packaging/CosmosProd/nuget/v3/index.json
Machine-wide package
Microsoft and .NET
https://www.nuget.org/api/v2/curated-feeds/microsoftdotnet/
Microsoft Visual Studio Offline Packages
C:\Program Files (x86)\Microsoft SDKs\NuGetPackages\
Name: nuget.org
Source: https://api.nuget.org/v3/index.json
Update
OK
Cancel
Output
Show output from: Package Ma
Added package 'Microsoft.A
Successfully installed 'Mi
Removing package 'Microsof
Removed package 'Microsoft.WindowsAzure.ConfigurationManager.3.1.0' from folder 'C:\Users\miprasad\documents\visual studio 2015\Projects\InBytesBot'
========== Finished ==========
Package Manager Console
Azure Data Lake Explorer Task List
Error List
Output
Solution 'InBytesBot' (1 project)
InBytesBot
Properties
References
Service References
Application Insights
Getting Started
ConnectedService.json
App_Start
Controllers
MessagesController.cs
ApplicationInsights.config
default.htm
Global.asax
packages.config
SimpleDialog.cs
Web.config
R Plot
Soluti...
Team...
Class...
Ready
Publish