

# Activate Azure with Application Insights

## ***POC Deployment Guide***

October 13, 2020

Version 1.0

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# Revision and Signoff Sheet

## Change Record

Date	Author	Version	Change Reference
March 2019	Ahmed Raboudi	0.0	Initial Draft
April 2019	Ahmed Raboudi	1.0	First version
February 2020	Ahmed Raboudi	1.1	DotNet Core 3 update

## Reviewers

Name	Version Approved	Position	Date
Simon Gurevich			

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# 1 Introduction

In this lab you will integrate Azure Application Insights into the existing application.

## 1.1 Objectives

After completing this lab, you will be able to:

- Deploy Azure Application Insights into the existing ASP.NET Core application
- Implement application Usage Analysis in Azure Application Insights

## 1.2 Prerequisites

- Microsoft Azure Subscription
- Internet Connectivity
- Visual Studio 2019
- Access to Azure Portal
- Hands-on experience developing ASP.NET Core applications
- Basic understanding of Azure and its application development model

## 1.3 Estimated Time to Complete

This lab should take up to two hours depending on prior Azure knowledge and familiarity with Azure Portal and Visual Studio.

## 1.4 Scenario

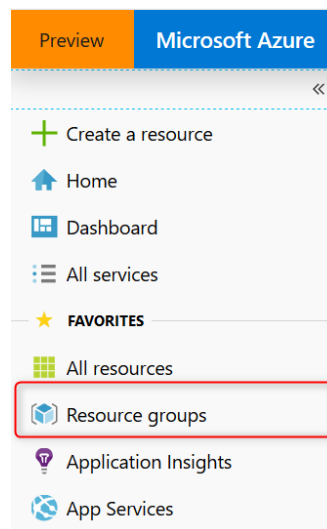
To demonstrate the capabilities of the Azure Application Insights, we will be deploying a number of features that will touch on Azure application monitoring capabilities. This will include integrating sample application with Azure Application Insights. We will then explore application usage analysis features of Azure Application Insights.

## 2 Exercise 1: Download and run sample application

For the first exercise in this lab, we will be reusing an existing application to use as a baseline for Application Insights integration

### 2.1 Basic Configuration

1. Log on to the Azure Portal: <https://portal.azure.com>
2. Click on Resource Groups



3. Click **Add** and then name your group **PartsUnlimited\_RG** and create it in **East US**. When you're done, click **Create**.

Basics Tags Review + Create

**Resource group** - A container that holds related resources for an Azure solution. The resource group can include all the resources for the solution, or only those resources that you want to manage as a group. You decide how you want to allocate resources to resource groups based on what makes the most sense for your organization. [Learn more](#)

**PROJECT DETAILS**

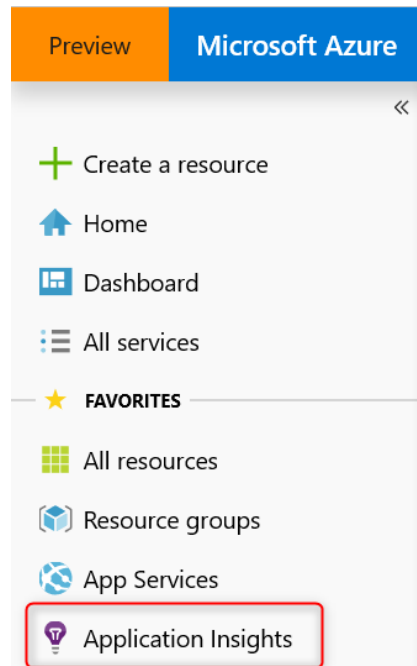
\* Subscription ⓘ Consumption interne Microsoft Azure

\* Resource group ⓘ PartsUnlimited\_RG ✓

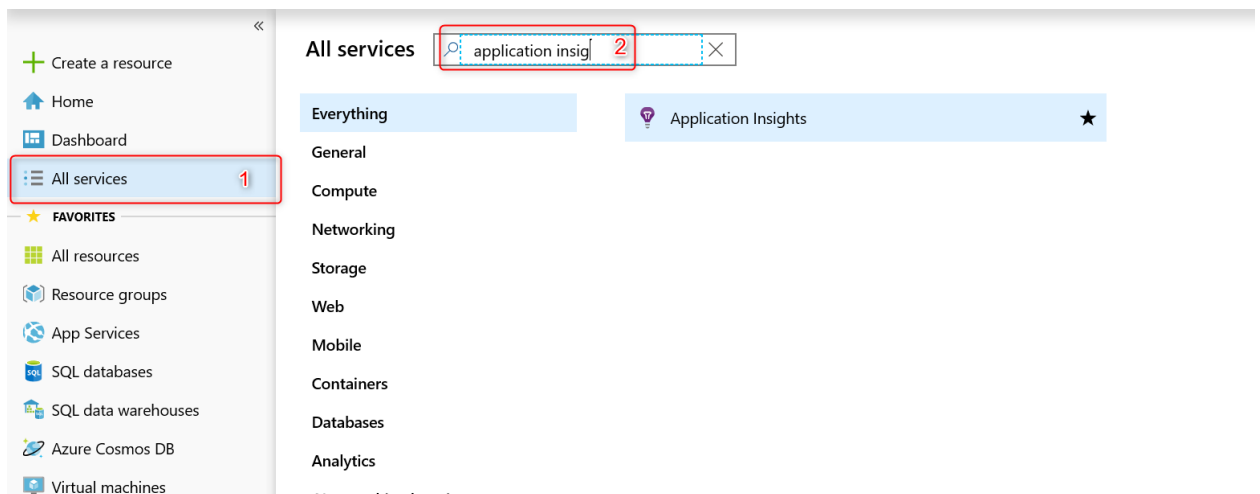
**RESOURCE DETAILS**

\* Region ⓘ East US

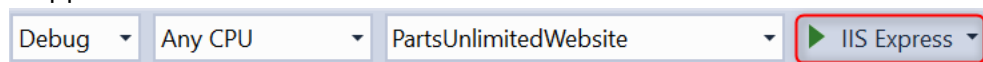
4. Now that your resource group has been created, we can now create your Application Insights instance. Begin by clicking on **Application Insights** in your favorite's menu.



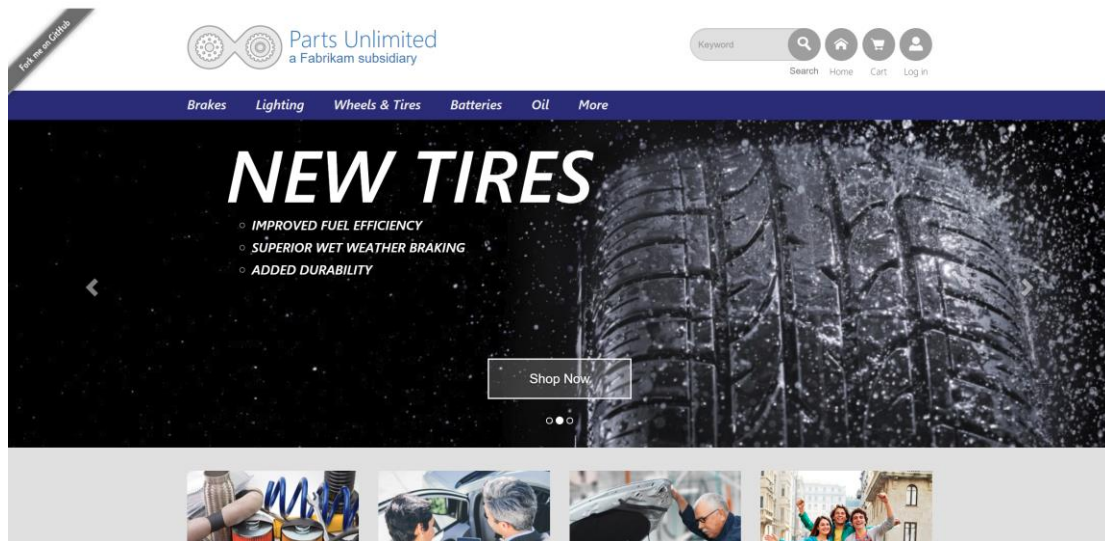
Note: If you don't see a particular option in the menu, click on **All Services** to find those that aren't in the favorites. You can then add them to you favorites by clicking on the star next to its name.



5. Open the Visual Studio solution of modified *Parts Unlimited* ASP.NET Core application supplied with the lab materials
6. Run the application



7. Explore the application



## 3 Exercise 2: Integrating with Application Insights

Application Insights is an extensible Application Performance Management service for web developers on multiple platforms and can be used to monitor your live web application and automatically detect performance anomalies.

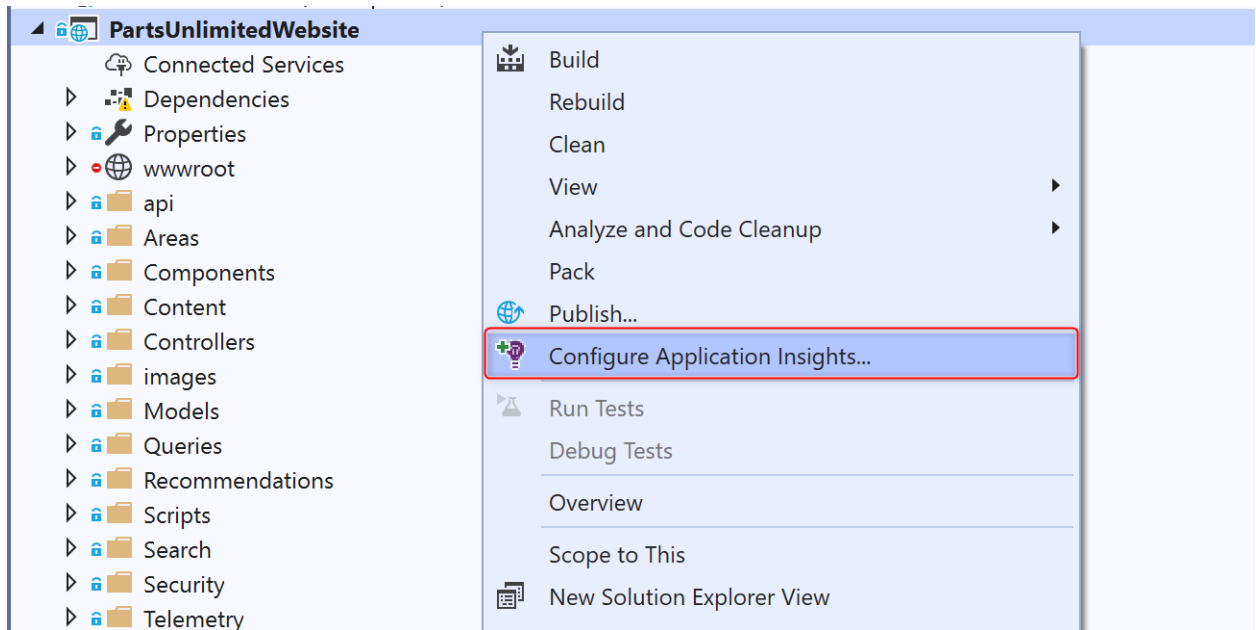
Azure Application Insights also helps you gain deep understanding into how people use your app. Every time you update your app, you can assess how well it works for users. With this knowledge, you can make data driven decisions about your next development cycles.

### 3.1 Setup Application Insights for PartUnlimited

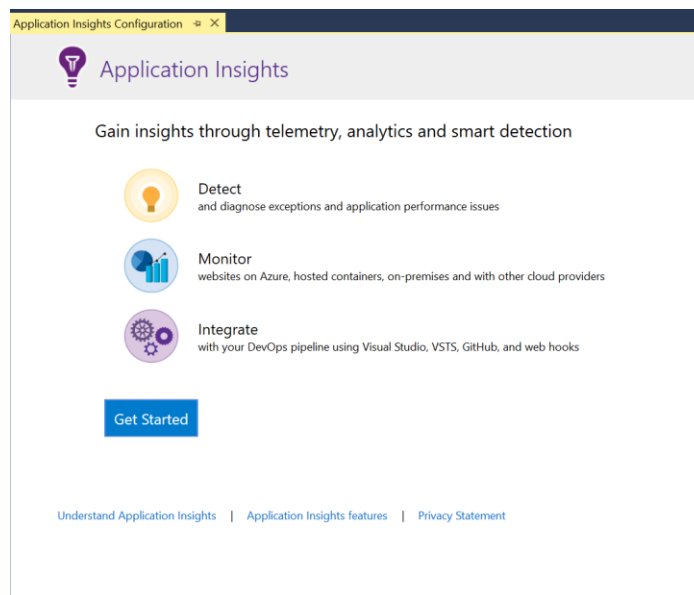
For this exercise, we will examine how to update Parts Unlimited application source code to integrate with Application Insights to enable usage analysis data collection.

1. From Visual Studio solution Explorer tab, right click the PartUnlimitedWebsite project. Select "Configure Application Insights ..." option.






2. Click on the "Get Started" button




3. Select the account and the Azure subscription where you have previously created the Application Insights resources "PartUnlimitedWebsite" and hit the "Register" button.

Application Insights Configuration

 Application Insights

Register your app with Application Insights

Account

 Microsoft  
@microsoft.com

Subscription

Consommation interne Microsoft Azure

Resource


PartsUnlimitedWebsite (Existing resource)


[Configure settings...](#)


Pricing  
Visit our [pricing page](#) for details.


Register

Getting started will...


Add the AI SDK to your project


Send data to Azure


Automatically track exceptions



Automatically send publish annotations

[Or just add the SDK to try local only mode](#)

Note: you may be prompted to authenticate to the Azure subscription using your account credentials to be able to explore your subscription resources.

- Hit the "Register" button.

Application Insights Configuration

 Application Insights

Resource Settings

Sending telemetry to

PartsUnlimitedWebsite in Default-ApplicationInsights-EastUS

CodeLens and Diagnostic Tools are reading telemetry from

PartsUnlimitedWebsite as Ahmed Raboudi.

Sending publish annotation to

PartsUnlimitedWebsite in Default-ApplicationInsights-EastUS

Configured
100%

SDK added

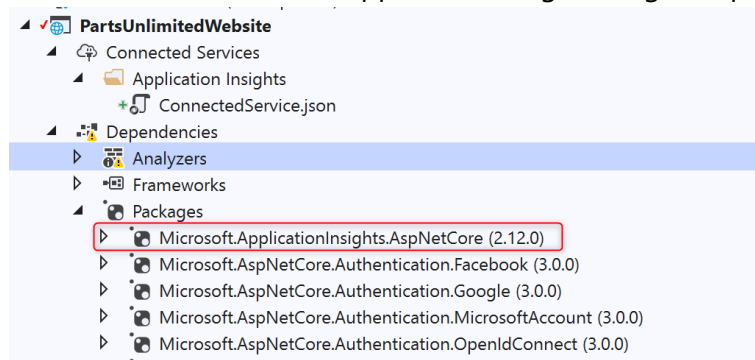
App registered with Application Insights

Publish annotation configured

[Disable publish annotation](#)

- Let highlight the modifications that has been done by the Application Insights integration tool

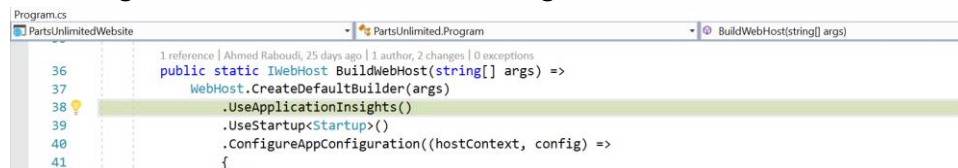
- Check the "PartsUnlimitedWebsite" for Application Insights Nuget Dependencies



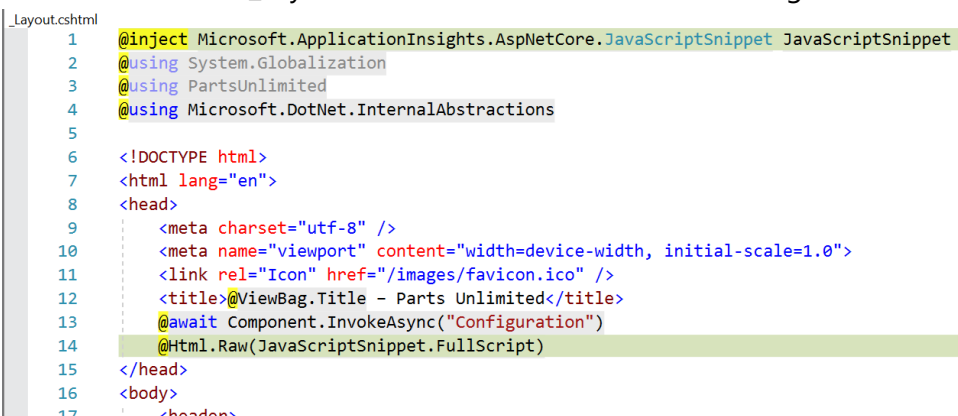
- Check the configuration file "appsettings.json" for the Application Insights Instrumentation key.



- Check the Program.cs file for **Server** monitoring



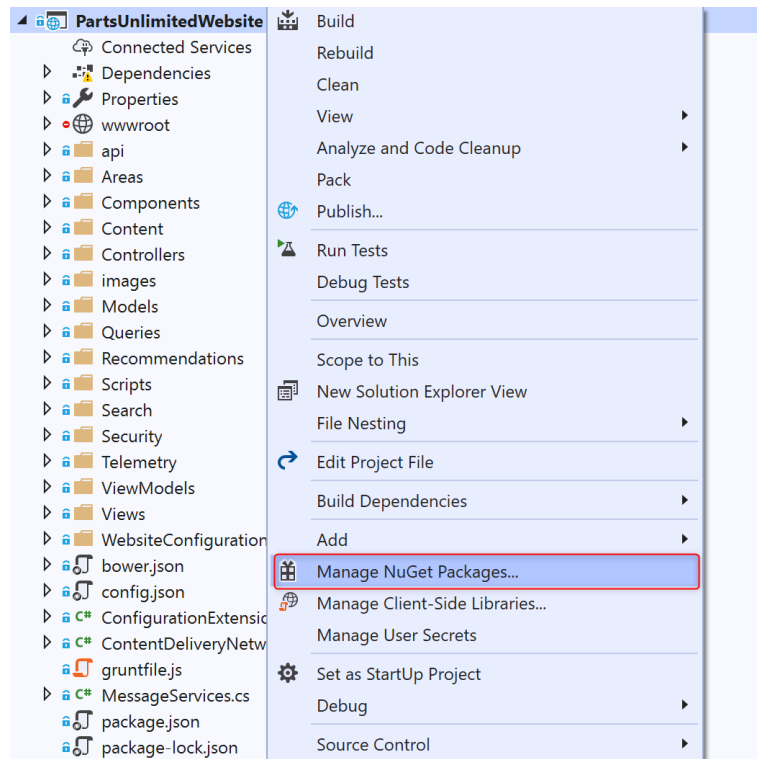
- Check the View/Shared/\_Layout.cshtml file for **Browser** monitoring



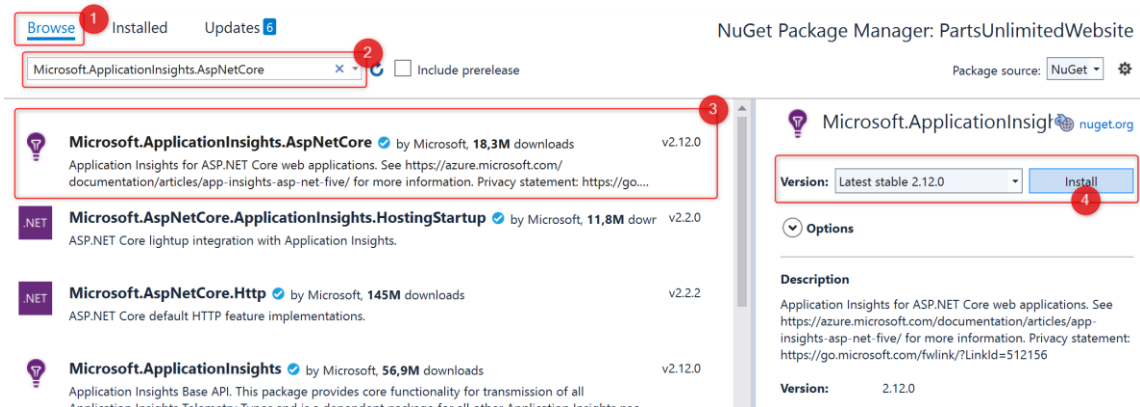
### Note:

If you experience an error regarding restoring "Microsoft.ApplicationInsights.AspNetCore" nuget package then follow those steps:

- Manually add the "Microsoft.ApplicationInsights.AspNetCore" nuget package to the "PartUnlimitedWebsite" project



- Browse for the package “**Microsoft.ApplicationInsights.AspNetCore**” and install the latest version.





- Click “Save All” option under “File” top menu.
- Right click on the “PartUnlimitedWebsite” project on the Solution Explorer view. Click the “Add” option, select the “Connected Service” option and click on “Monitoring with Application Insights”


Overview
Connected Services
Service References
Publish


## Connected Services


Add code and dependencies for one of these services to your application


**Monitoring with Application Insights**  
Gain visibility into your application using Application Insights right from Visual Studio.


**Cloud Storage with Azure Storage**  
Gain visibility into your application using Application Insights right from Visual Studio.


**Secure Secrets with Azure Key Vault**  
Secure your application by moving secrets from source code into an Azure Key Vault


**Microsoft WCF Web Service Reference Provider**  
Add a WCF web service reference to your project.


**Authentication with Azure Active Directory**  
Configure Single Sign-On in your application using Azure AD.

- Repeat the steps from 2 to 5 to setup Application Insights

## 3.2 Setup Application Insights authenticated users monitoring

For this exercise, we will examine how to update Parts Unlimited application source code to enhance usage analysis data collection for authenticated users.

1. Open the file **Views/Shared/\_login.cshtml** under the "PartsUnlimitedWebsite" project.

- Add the following at the beginning of the file:

```
@using System.Security.Claims
```

- Add this code to the end of the authenticated section:

```
<script>
    appInsights.setAuthenticatedUserContext("@User.FindFirstValue(ClaimTypes.NameIdentifier)");
</script>
```

- The \_Login.cshtml should look like that after you have finished your modifications

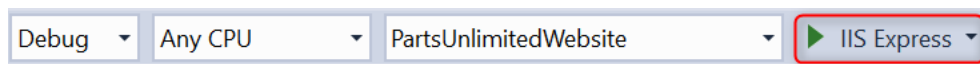
```

1  @using System.Security.Claims
2  @if (User.Identity.IsAuthenticated)
3  {
4      var isNtlm = User.Identity.AuthenticationType == "NTLM";
5
6      <li class="dropdown">
7          <a href="@Url.Action("Index", "Store")" id="profile-link" class="dropdown-toggle head-link" data-toggle="dropdown">
8              <ul class="dropdown-menu">
9                  <li>@Html.ActionLink("Manage Account", "Index", "Manage", routeValues: null, htmlAttributes: new { title = "Ma
10                     <li>@Html.ActionLink("View Orders", "Index", "Orders", new { Area = string.Empty })</li>
11                     @if (!isNtlm)
12                     {
13                         <li>
14                             @Either NTLM will be used or social authentication will be used. Based on the authentication schemes ,
15                             @using (Html.BeginForm("LogOff", "Account", FormMethod.Post, new { id = "logoutForm" })))
16                             {
17                                 @Html.AntiForgeryToken()
18                             }
19                             <a href="javascript:document.getElementById('logoutForm').submit()">Log off</a>
20                         </li>
21                     }
22                 </ul>
23             </li>
24             <script>
25                 appInsights.setAuthenticatedUserContext("@User.FindFirstValue(ClaimTypes.NameIdentifier)");
26             </script>
27         }
28     }
29     else
30     {
31         <li>@Html.ActionLink("Log in", "Login", "Account", routeValues: null, htmlAttributes: new { id = "login-link", @class:
32     }
33 }

```

### 3.3 Running the application

Once the application is integrated with Application Insights, run the solution



1. Browse available product's categories



2. Browse a product description

## Brakes



Brake Rotor

 Shop Now




Brake Disk and Calipers

\$43.99

3. click "ADD TO CART" button

### Brake Rotor



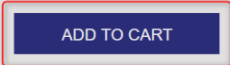
**\$18.99**

In Stock (Ships 1-3 days)

**Description**


Our Brake Rotor Performs well in wet conditions with a smooth responsive feel. Machined to a high tolerance to ensure all of our Brake Rotors are safe and reliable.

Disk Design	Cross Drill Slotted
Construction	Vented Rotor
Diameter	10.3 in.
Finish	Silver Zinc Plated
Hat Finish	Black E-coating
Material	Cast Iron

 ADD TO CART

4. Click "Checkout" button

## Review your Cart

Product Description	Quantity	Price
 <p><b>Brake Rotor</b> Our Brake Rotor Performs well in wet coditions with a smooth responsive feel. Machined to a high tolerance to ensure all of our Brake Rotors are safe and reliable.</p>	1	\$18.99
		<a href="#">REMOVE</a>
Sub Total		\$18.99
Shipping		\$5.00
Tax		\$1.20
<b>Total</b>		<b>\$25.19</b>
<a href="#">CHECKOUT</a>		

- Click the "Register as a new user?" link to signup  
Log in.

Use a local account to log in.

Email

Password

☐ Remember me?

[LOG IN](#)

[Register as a new user?](#)

[Forgot your password?](#)

Use another service to log in


There are no external authentication services configured. See [this article](#) for details on setting up this ASP.NET application to support logging in via external services.


- Fill your account Email and password then click "Register" button




## Register

Create a new account.







**REGISTER**

7. Confirm you email

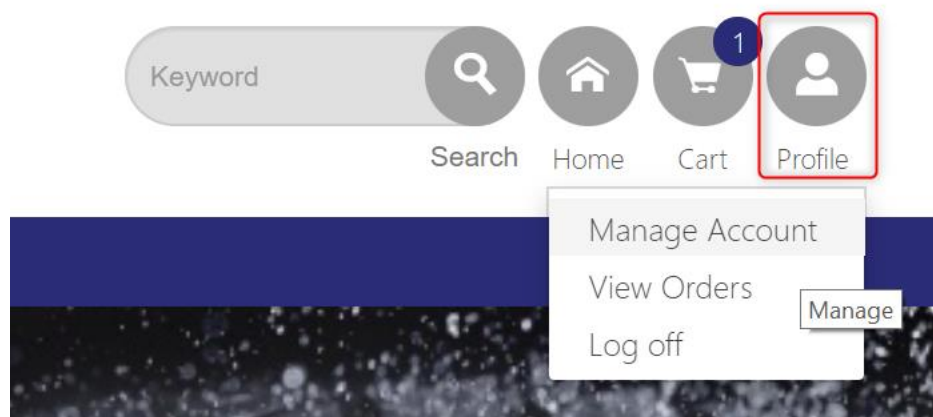
## Register Confirmation

Please check your email to activate your account.

Demo/testing purposes only: [Click here to confirm your email](#)

Note: You will not go through a real email confirmation process since the application is not able to send emails.

8. Now Signin using the newly created account credentials
9. Click on your "Profile" link and choose "Manage Account" to visit your profile management page.




10. Now go back to you Cart summary page and click the "Checkout" button

Parts Unlimited  
a Fabrikam subsidiary

Keyword Search Home Cart Profile

Brakes Lighting Wheels & Tires Batteries Oil More

### Review your Cart

Product Description	Quantity	Price
 <b>Brake Rotor</b> Our Brake Rotor Performs well in wet conditions with a smooth responsive feel. Machined to a high tolerance to ensure all of our Brake Rotors are safe and reliable.	1	\$18.99
		<a href="#">REMOVE</a>

Sub Total	\$18.99
Shipping	\$5.00
Tax	\$1.20
<b>Total</b>	<b>\$25.19</b>

[CHECKOUT](#)

11. Confirm your order

# Checkout Complete

Thanks for your order!

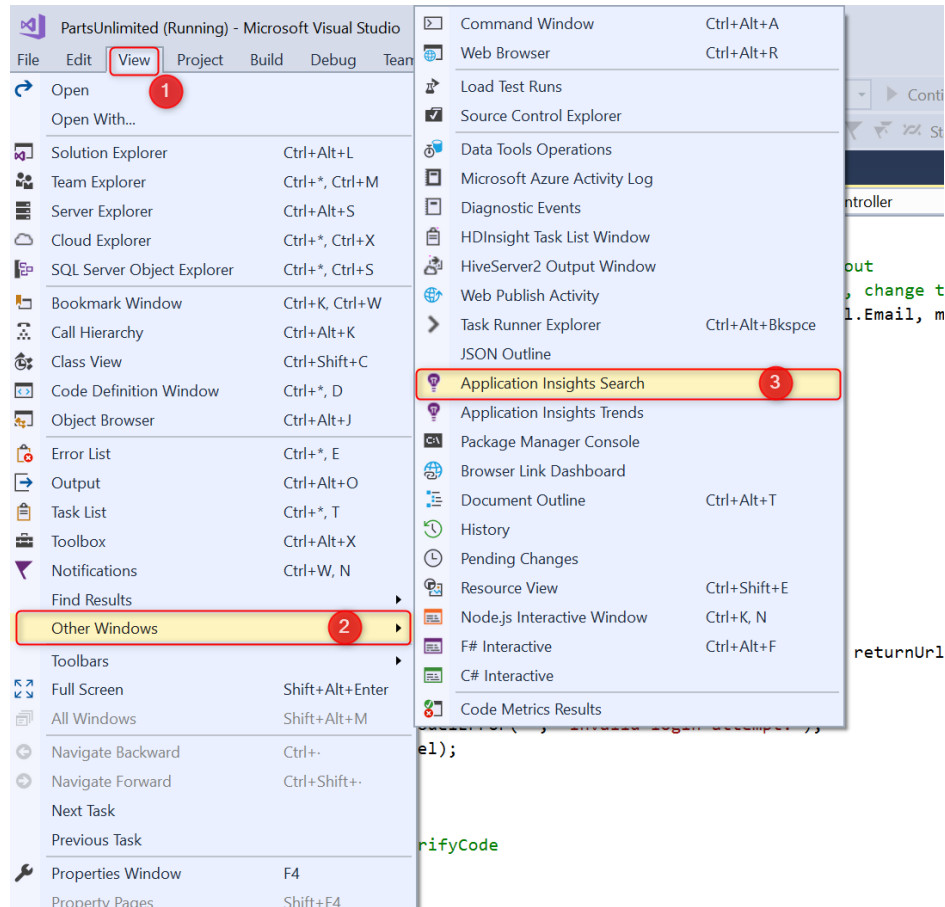
Your order number is: 346

Order Date: 4/8/2019;

You can [view your order](#) from your account page.

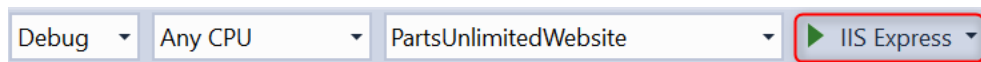
[KEEP SHOPPING](#)

12. Go back to Visual Studio and open the "Application Insights Search" View

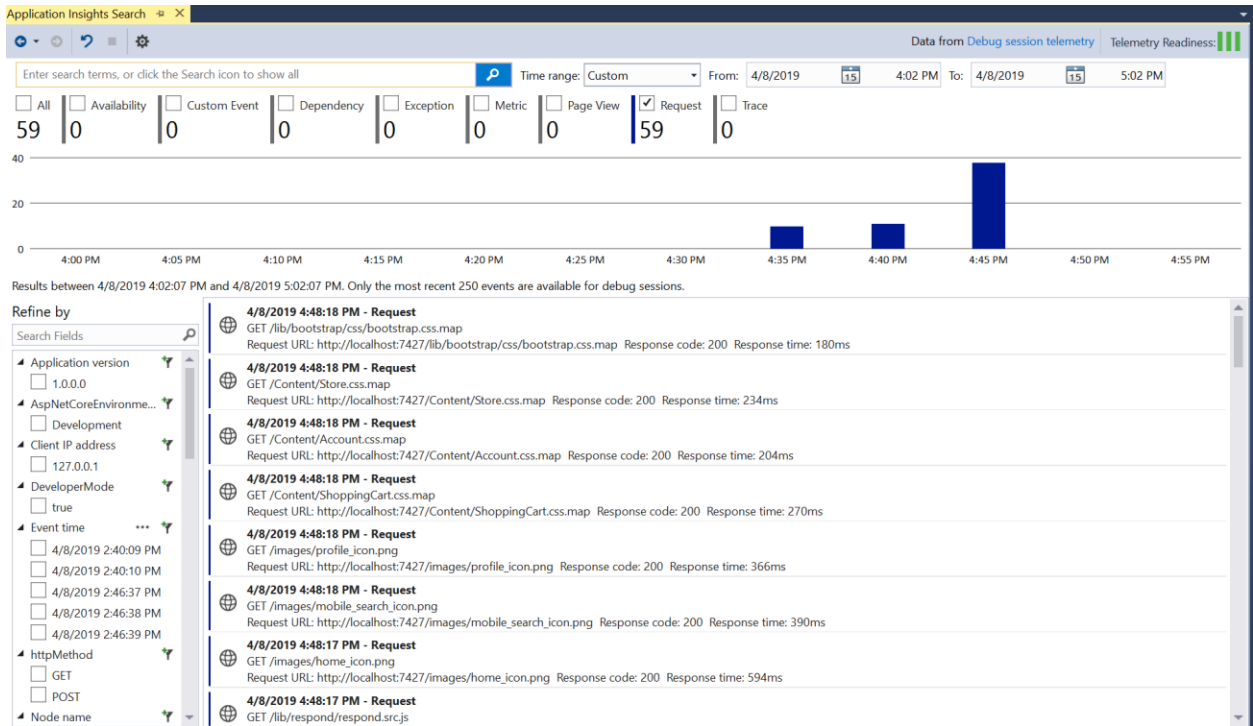


13. Replay steps from 1 to 3 many times using browser private navigation feature to generate more user's related metrics.

Note: If you are not able to use the Private Navigation feature from your browser you can use a different browser or close your browser each time you finish the test and click again on the Run button from Visual Studio



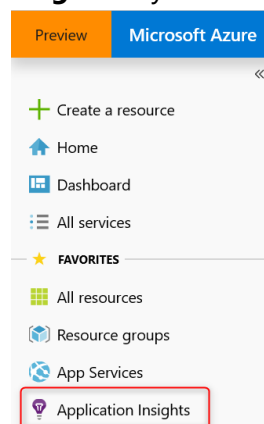
14. You can browse and search the collected metrics locally using the "Application Insights Search"



## 4 Exercise 3: Examining Application Insights Usage Analysis

In this section, we are going to generate and examine usage analyze data captured while running Parts Unlimited application integrated with Application Insights

1. Go to the Azure portal <https://portal.azure.com>
2. Begin by clicking on **Application Insights** in your favorite's menu.



3. Select the "PartsUnlimitedWebsite" Application Insight instance

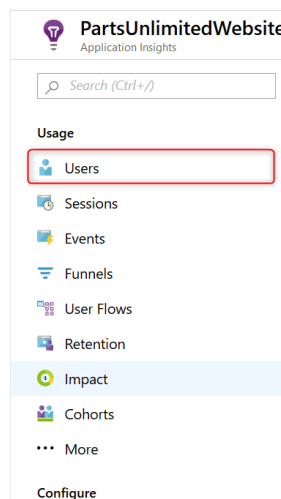
## 4.1 Examining Users, Sessions and Events

Find out when people use your web app, what pages they're most interested in, where your users are located, and what browsers and operating systems they use. Analyze business and usage telemetry

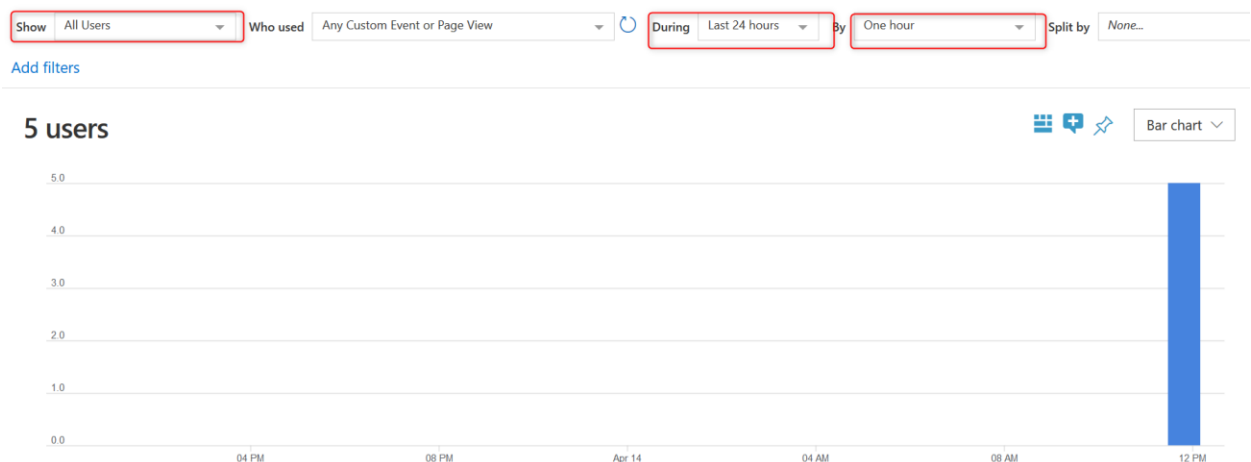
### 4.1.1 Users

How many people used your app and its features? Users are counted by using anonymous IDs stored in browser cookies. A single person using different browsers or machines will be counted as more than one user.

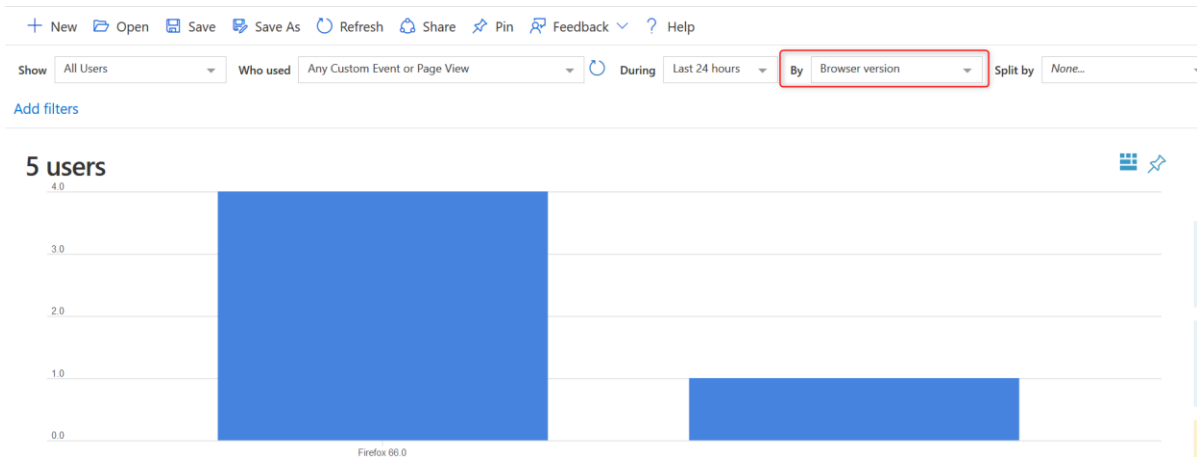
1. Go to the Users Blade



2. As soon as the user blade have been loaded, you have an insight about all users' statistics since the last 24 hours by hour



3. Change the By clause to Browser to group metrics on the chart by Browser Version



- Click the "Add filters" link and create a new filter based on the City


The screenshot shows the 'Add filters' dialog box. It has two tabs: 'Add filter' (selected) and 'Add filter group'. In the 'Add filter' tab, there's a dropdown for 'City' (highlighted with a red box and number 2), a dropdown for 'equals' (highlighted with a red box and number 1), and a text input field for 'Select value...' (highlighted with a red box and number 3). Below the input field, there's a dropdown menu showing '<undefined>' and 'Boulogne-Billanc...'. At the bottom, there are 'Apply' and 'Clear' buttons (both highlighted with red boxes and numbers 3 and 2 respectively).





- Now click "Save" to save the report and name it "My City users by Browser" to be able to open it later using the "Open" button

The screenshot shows the 'Save report' dialog box. It has a 'Title \*' field with the value 'My City users by Browser' (highlighted with a red box and number 2), a 'Save To \*' dropdown with the value 'My reports' (highlighted with a red box and number 1), and 'Save' and 'Cancel' buttons (both highlighted with red boxes and numbers 3 and 2 respectively).

- Go to the "Meet your users" section

MEET YOUR USERS

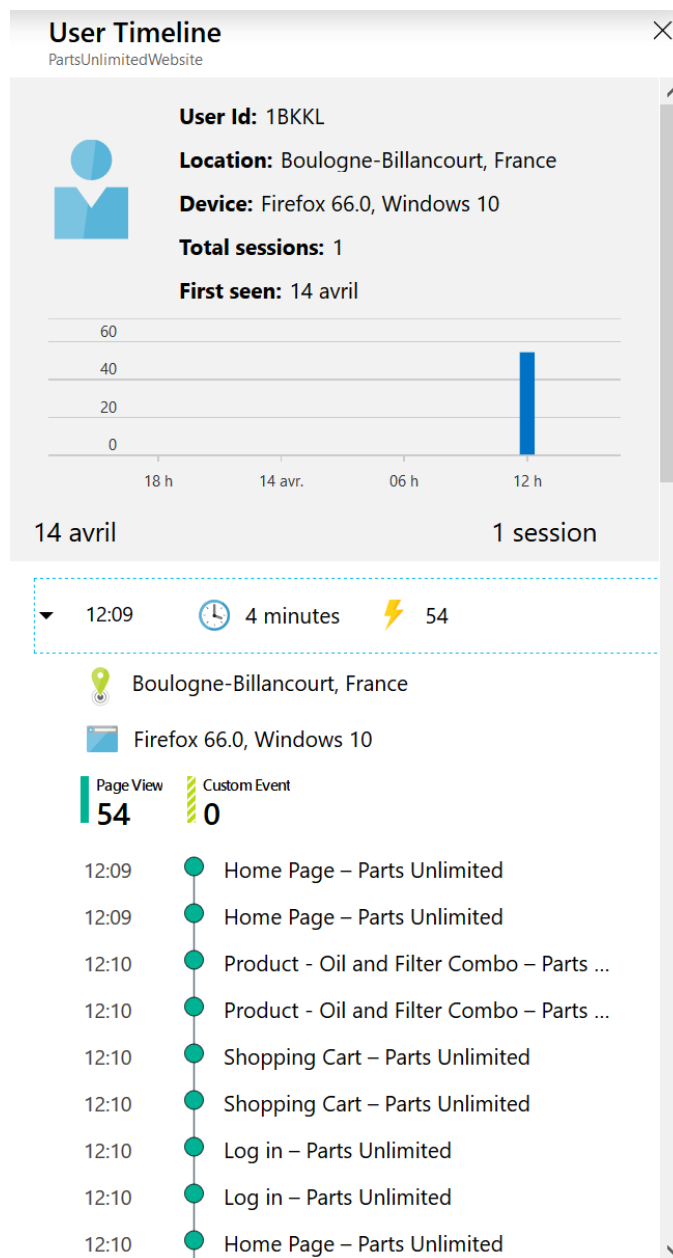
Show Any 5 Users 

 Boulogne-Billancourt, Fra... Sessions: 1 Events: 54 OS: Windows 10 Browser: Firefox 66.0	 Boulogne-Billancourt, Fra... Sessions: 1 Events: 2 OS: Windows 10 Browser: Chrome 73.0	 Boulogne-Billancourt, Fra... Sessions: 1 Events: 34 OS: Windows 10 Browser: Firefox 66.0	 Boulogne-Billancourt, Fra... Sessions: 1 Events: 18 OS: Windows 10 Browser: Firefox 66.0	 Boulogne-Billancourt, Fra... Sessions: 1 Events: 16 OS: Windows 10 Browser: Firefox 66.0
--	--	--	---	--

Note: If you don't have a "Meet your users" section click on the "View More Insights" button

[View More Insights](#)

- Click on any user to open the Timeline blade to have an overview about all the user actions over all sessions

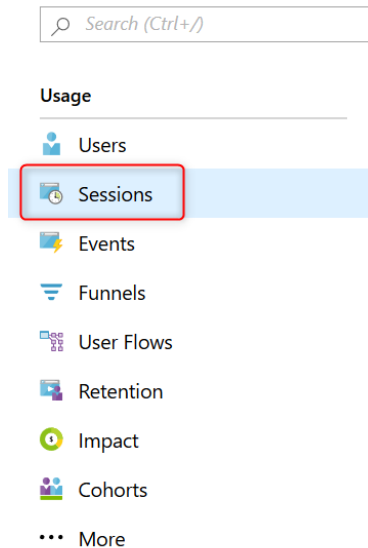


## 4.1.2 Sessions

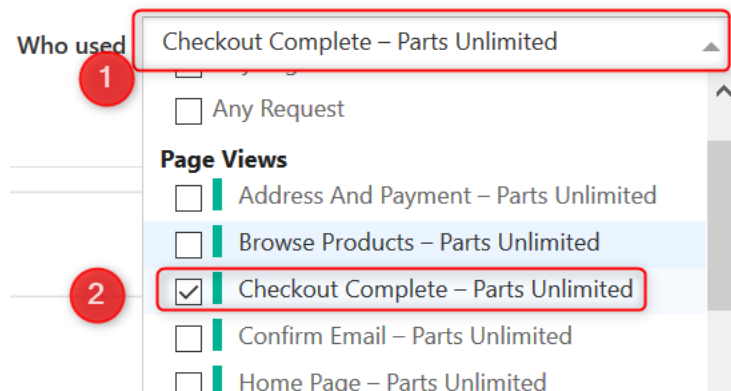
How many sessions of user activity have included certain pages and features of your app? A session is counted after half an hour of user inactivity, or after 24 hours of continuous use.


1. Go to the Users Blade





2. As soon as the session blade have been loaded All users report, you have an insight about all sessions' statistics since the last 24 hours grouped by hour.
3. Change the "Who Used" chart parameter to check sessions that have specific events only



Note: If you don't see the Page Views section click on the refresh button  next to the "Who used" chart parameter.







4. Go to the "Active Sessions" section

MEET YOUR USERS					Show Any 5 Users 
 Boulogne-Billancourt, Fra...	 Boulogne-Billancourt, Fra...	 Boulogne-Billancourt, Fra...	 Boulogne-Billancourt, Fra...	 Boulogne-Billancourt, Fra...	
Sessions: 1	Sessions: 1	Sessions: 1	Sessions: 1	Sessions: 1	
Events: 54	Events: 2	Events: 34	Events: 18	Events: 16	
OS: Windows 10	OS: Windows 10	OS: Windows 10	OS: Windows 10	OS: Windows 10	
Browser: Firefox 66.0	Browser: Chrome 73.0	Browser: Firefox 66.0	Browser: Firefox 66.0	Browser: Firefox 66.0	

Note: If you don't have a "Active Sessions" section click on the "View More Insights" button

[View More Insights](#)

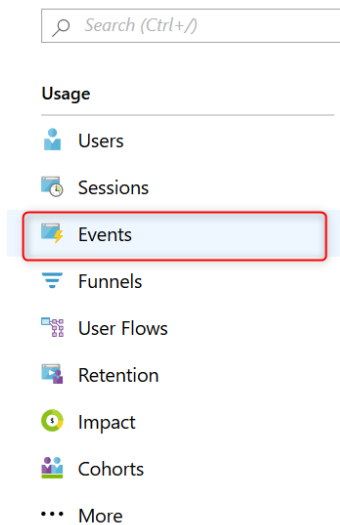
- Click on any session to open the Timeline blade to have an overview about this session events

ACTIVE SESSIONS					Show Any 5 sessions 
 Boulogne-Billancourt, Fra...	 Boulogne-Billancourt, Fra...	 Boulogne-Billancourt, Fra...	 Boulogne-Billancourt, Fra...	 Boulogne-Billancourt, Fra...	
Events: 54	Events: 34	Events: 18	Events: 16	Events: 2	
OS: Windows 10	OS: Windows 10	OS: Windows 10	OS: Windows 10	OS: Windows 10	
Browser: Firefox 66.0	Browser: Firefox 66.0	Browser: Firefox 66.0	Browser: Firefox 66.0	Browser: Chrome 73.0	

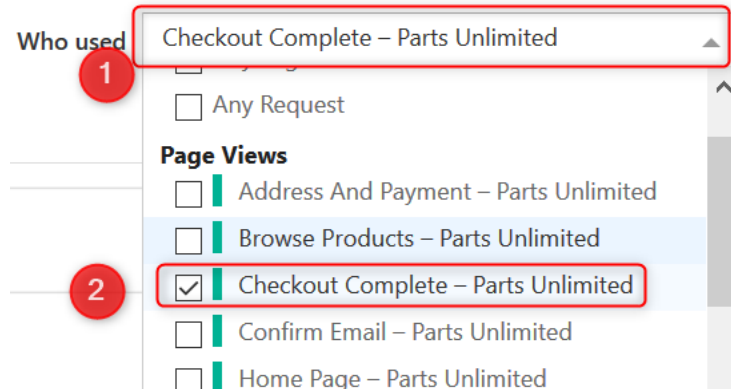
### 4.1.3 Events


How often certain pages and features of your app are used? A page view is counted when a browser loads a page from your app, provided you have instrumented it. Examining Cohorts

- Go to the Events Blade




- As soon as the Events blade have been loaded All users report, you have an insight about all Events statistics since the last 24 hours grouped by hour.
- Change the "Who Used" chart parameter to get an overview about specific events only



Note: If you don't see the Page Views section click on the refresh button  next to the "Who used" chart parameter.

- Go to the "Event Statistics" section

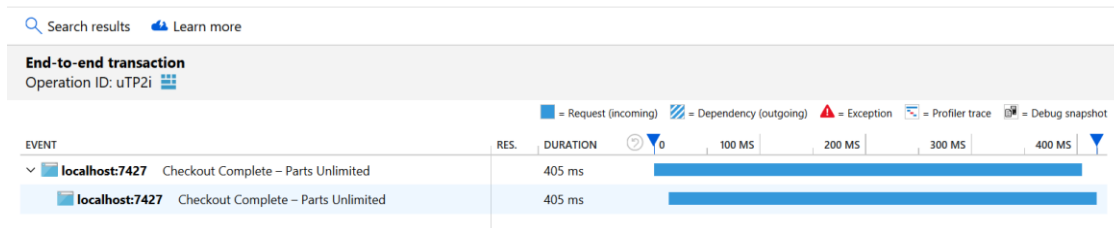
EVENT STATISTICS Page View 2

NAME	USERS	SESSIONS	COUNT
Overall	1	1	2
 Checkout Complete - Parts Unlimited	1	1	2

Note: If you don't have a "Event Statistics" section click on the "View More Insights" button

[View More Insights](#)

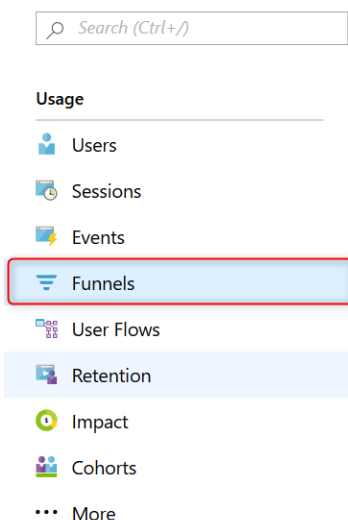
- Click on any event to open the "End-to-end transaction details" view to have more details



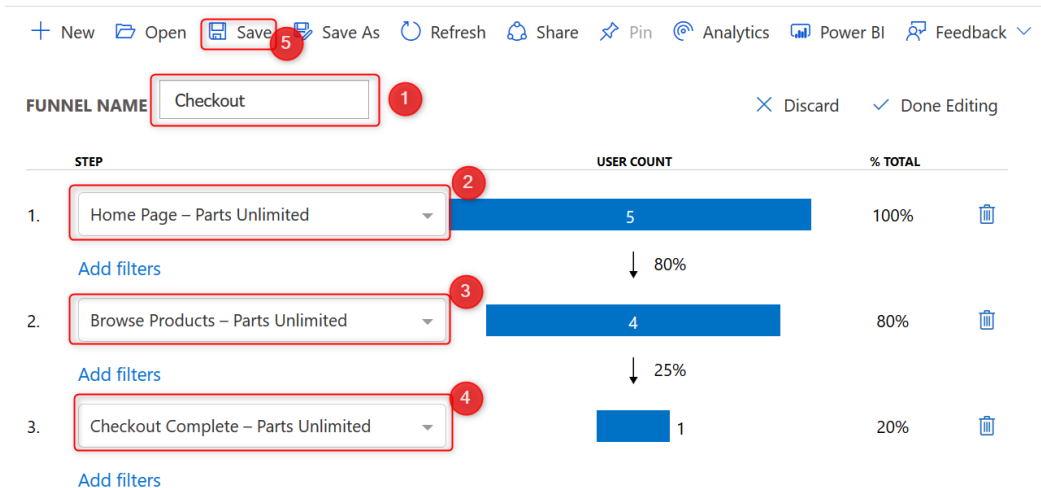
## 4.2 Examining Funnels

Understanding the customer experience is of the utmost importance to your business. If your application involves multiple stages, you need to know if most customers are progressing through the entire process, or if they are ending the process at some point. The progression through a series of steps in a web application is known as a funnel. You can use Azure Application Insights Funnels to gain insights into your users and monitor step-by-step conversion rates.

# 1. Go to the Funnels Blade





# 2. Create a new Funnel named "Checkout" to analyze the behavior of users that have been able to make a checkout and save it on "My Reports"

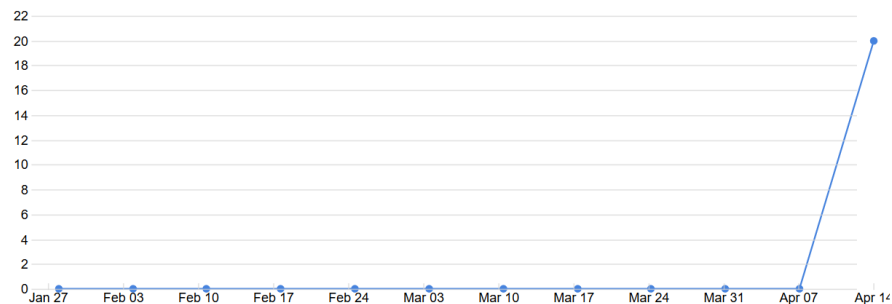


# 3. Check the "summary" section for conversion rate

#### SUMMARY

CONVERSION	START COUNT	END COUNT
20%	5 	1 

#### HISTORICAL CONVERSION BY WEEK

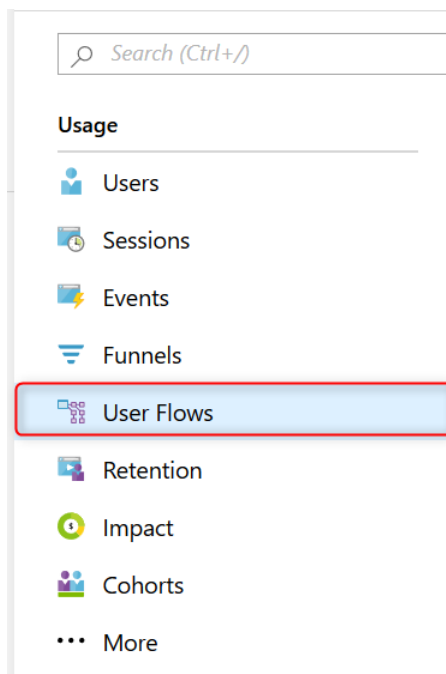


## 4.3 Examining User Flows

The User Flows tool visualizes how users navigate between the pages and features of your site. It's great for answering questions like:

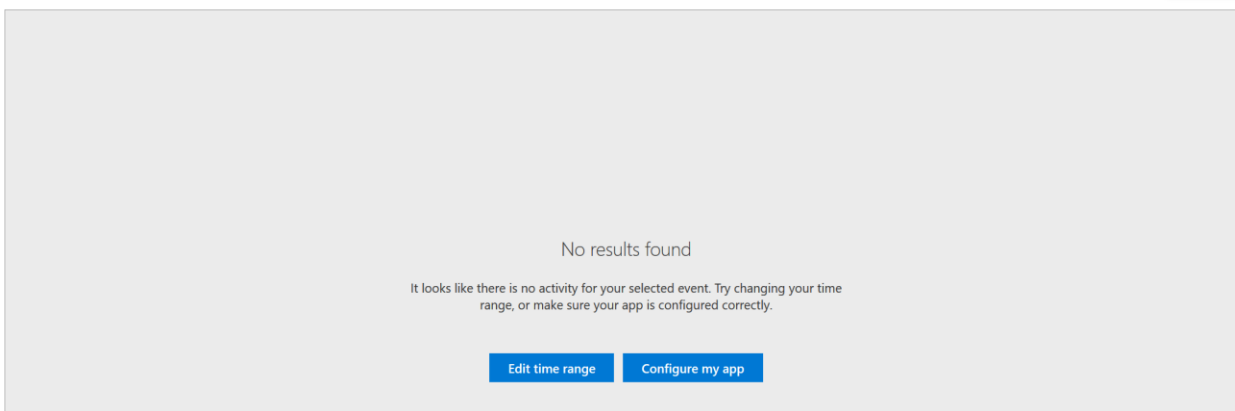
- How do users navigate away from a page on your site?
- What do users click on a page on your site?
- Where are the places that users churn most from your site?
- Are there places where users repeat the same action over and over?

### 1. Go to the User Flows Blade



2. Click the "Edit" button

What happens before and after ... ?



3. Configure the "User Flow as following" and click "Create Graph" button

Edit

Initial Event

Home Page – Parts Unlimited 1

Time Range: 1 day 2  
 Scope: Sessions  
 Optimize for: Performance

Filters

Add filter

Included Events (97)

[Exclude all events](#)

All events 3

<input checked="" type="checkbox"/>	Address And Payment – Parts Unlimited	266 ^
<input type="checkbox"/>	Browse Products – Parts Unlimited	262626
<input type="checkbox"/>	Checkout Complete – Parts Unlimited	244
<input type="checkbox"/>	Confirm Email – Parts Unlimited	444
<input type="checkbox"/>	DEBUG /	133
<input type="checkbox"/>	GET /Content/Account.css	192525
<input type="checkbox"/>	GET /Content/Account.css.map	033 v

Excluded events

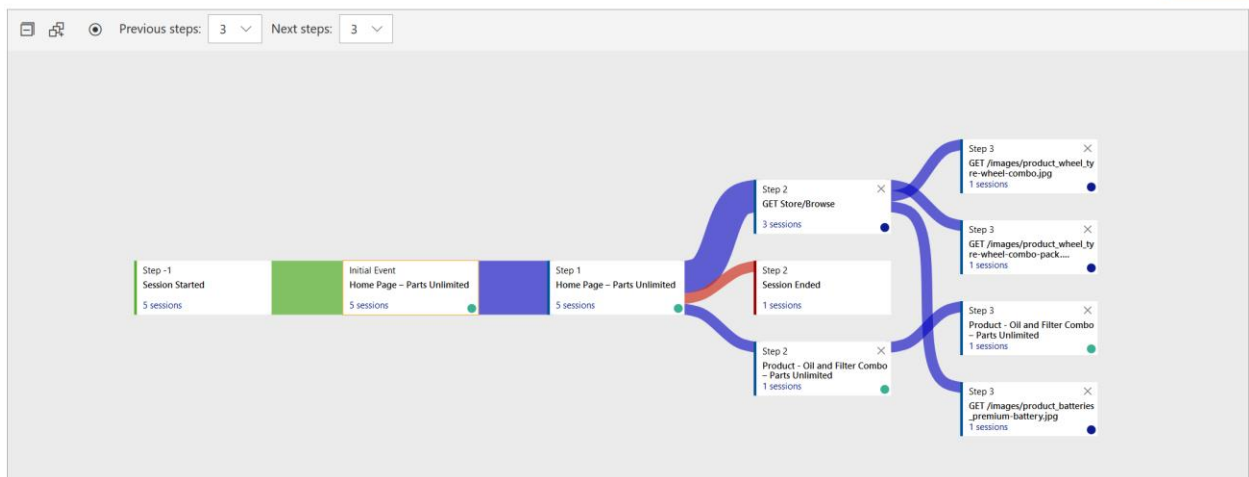
Create Graph 4

Cancel

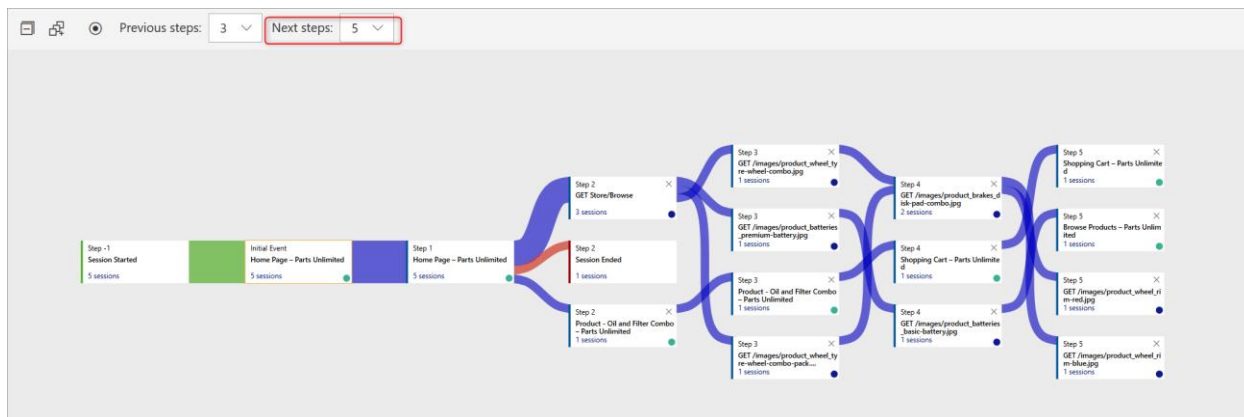
#### 4. Analyze your users flow before and after the home Page

What happens before and after [Home Page – Parts Unlimited](#) ?

[Edit](#)



#### 5. Change the Next steps" filter to 9 to see more steps



6. Click on the "Edit" button to filter the displayed events to page view only

Edit

Initial Event  
Home Page - Parts Unlimited

Time Range  
1 day

Scope  
Sessions

Optimize for  
Performance

Filters  
Add filter

Included Events (19)  
All page views 1

Event Name	Count
Home Page - Parts Unlimited	266
Parts Unlimited	262626
Parts Unlimited	244
Parts Unlimited	444
Home Page - Parts Unlimited	203030
Log in - Parts Unlimited	161818
Product - Blue Performance Alloy Rim - Parts Unlimited	222

Excluded events

Create Graph 2 Cancel

## 4.4 Examining Impact

Impact analyzes how load times and other properties influence conversion rates for various parts of your app. To put it more precisely, it discovers how any dimension of a page view, custom event, or request affects the usage of a different page view or custom event.

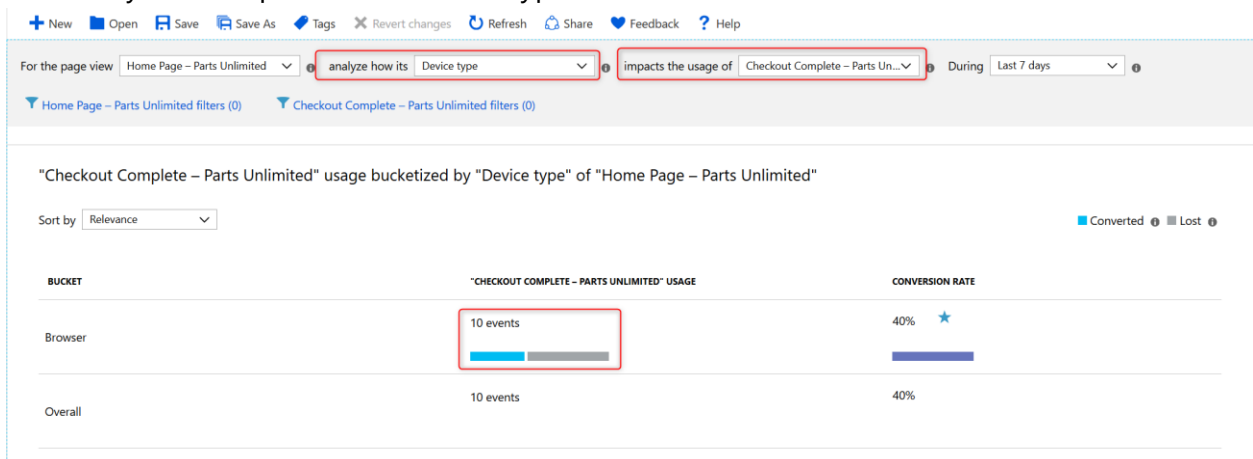
1. Go to the Impact Blade



## Usage

- Users
- Sessions
- Events
- Funnels
- User Flows
- Retention
- Impact**
- Cohorts
- More

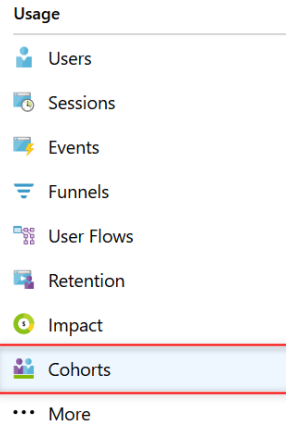
## 2. Let's analyze the impact of user device type on the Checkout event



## 4.5 Creating Cohort

A cohort is a set of users, sessions, events, or operations that have something in common. In Azure Application Insights, cohorts are defined by an analytics query. In cases where you have to analyze a specific set of users or events repeatedly, cohorts can give you more flexibility to express exactly the set you're interested in.

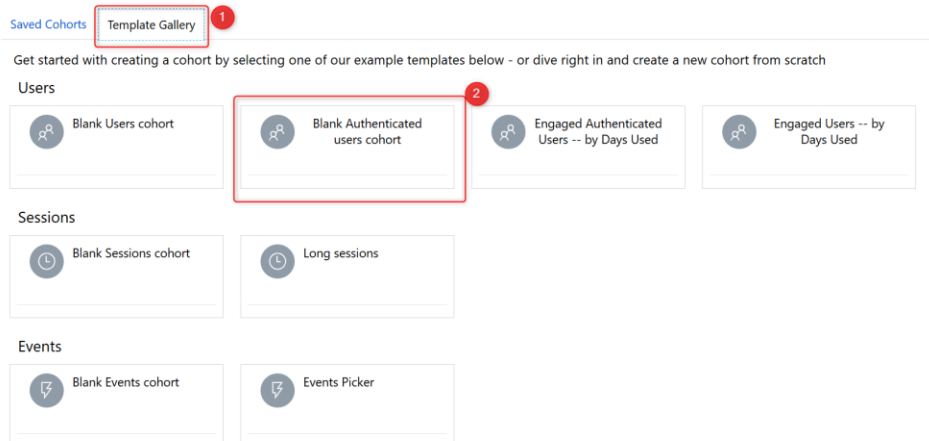
### 1. Go to the Cohorts Blade



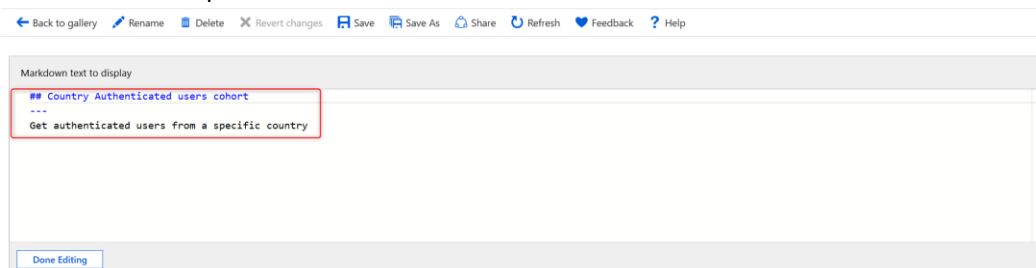
## 2. Let's create a new cohort that will bookmark your country users

Use cohorts to bookmark particular groups of users, sessions, events or operations.

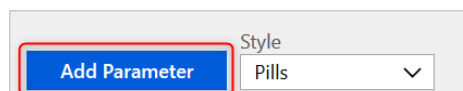
Once you define a cohort, it will appear as an option in the Users, Sessions and Events tools in Application Insights



## 3. Provide a description for the cohort



## 4. Add a new parameter



## 5. Fill the parameter settings and click on "Samples" button

### New Parameter

PartsUnlimitedWebsite

[Save](#)
[Cancel](#)
[Help](#)

\* Parameter name 1

Parameter type 2

Required? ☐

Allow multiple selections ☐

Limit multiple selections ☐

Delimiter

Quote with

Explanation

Hide parameter in reading mode ☐

Get data from 3

Application Insights Logs Query 4

Time Range

## 6. Pick the Country sample

### New Parameter

PartsUnlimitedWebsite

[Close Samples](#)

#### An Activity Picker

Creates a dropdown that lets a user pick from the top 20 events/pageviews/requests in the last 24 hours. Use in a query like `<code>where name == '[parameter]'` or `<code>where name in (parameter)` if allowing multiple selections.

```

union customEvents, pageViews, requests
| where timestamp > ago(24h)
| summarize count() by name
| top 10 by count_
| order by count_desc
| extend label = strcat(name, " (", count_, ")")
| project name, label

```

[Use this sample](#)

#### A Country Picker

Creates a dropdown that lets a user pick from the 100 countries with the most events in the last 14 days. Use in a query like `<code>where client_CountryOrRegion == '[parameter]'` or `<code>where client_CountryOrRegion in (parameter)` if allowing multiple selections.

```

union customEvents, pageViews, requests
| where timestamp > ago(14d)
| summarize count() by client_CountryOrRegion
| top 100 by count_
| order by client_CountryOrRegion asc
| project client_CountryOrRegion

```

[Use this sample](#)

## 7. Save the parameter

### New Parameter

PartsUnlimitedWebsite

[Save](#)
[Cancel](#)
[Help](#)

\* Parameter name

- Set the country value to your specific country

Style: Pills

Country: France

- Paste the following query in the Application Insights Logs query textbox and click the "Run Query" button to get the result overview

```

union customEvents, pageViews
| where timestamp >= ago(7d)
| where client_CountryOrRegion == "{Country}"
| summarize Count = max(1) by user_AuthenticatedId, bin(timestamp, 1d)
  
```

Run Query 2

Application Insights Logs Query

```

union customEvents, pageViews
| where timestamp >= ago(7d)
| where client_CountryOrRegion == "{Country}"
| summarize Count = max(1) by user_AuthenticatedId, bin(timestamp, 1d)
  
```

user\_AuthenticatedId

d6c11fcd-6fdd-475c-9e39-b0854320780a
dd248355-5ef3-4029-a2a1-fd7630d0992c

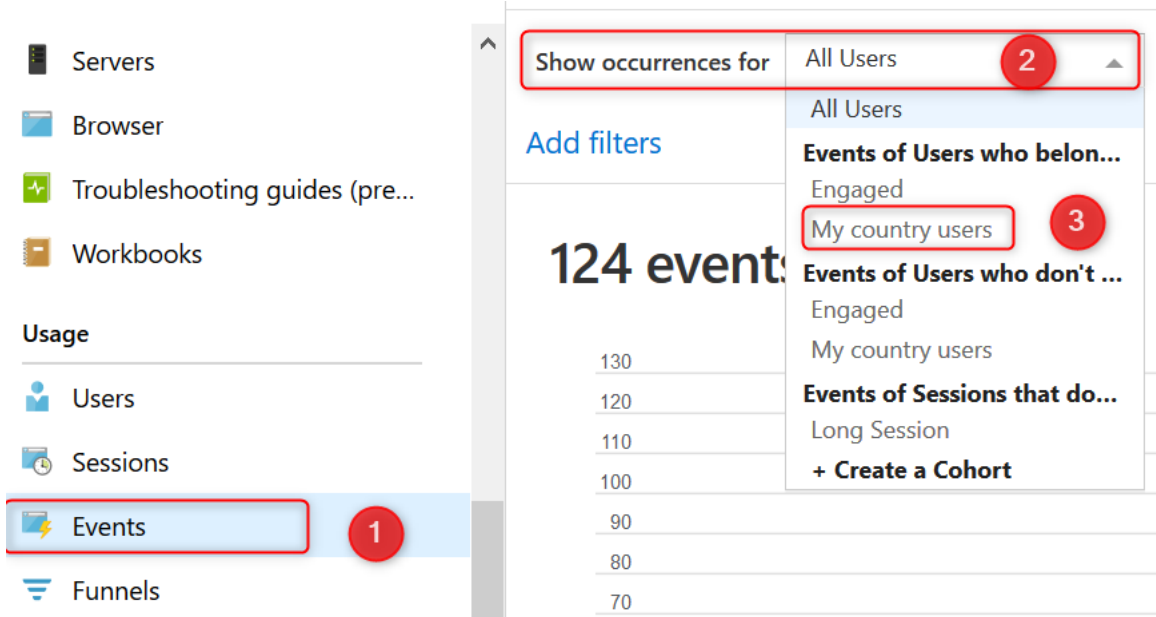
Done Editing

- Save the cohort

\* Title 1

\* Save To 1

- Go the Events blade and chose "Event of users that belong to My country users" cohort as a filter



Note: The cohort will be available on Users or Session or Events blades

## 4.6 Viewing Workbook

Workbooks combine text, Analytics queries, Azure Metrics, and parameters into rich interactive reports. Workbooks are editable by any other team members who have access to the same Azure resources.

Workbooks are helpful for scenarios like:

- Exploring the usage of your app when you don't know the metrics of interest in advance: numbers of users, retention rates, conversion rates, etc. Unlike other usage analytics tools, workbooks let you combine multiple kinds of visualizations and analyses, making them great for this kind of free-form exploration.
- Explaining to your team how a newly released feature is performing, by showing user counts for key interactions and other metrics.
- Sharing the results of an A/B experiment in your app with other members of your team. You can explain the goals for the experiment with text, then show each usage metric and Analytics query used to evaluate the experiment, along with clear call-outs for whether each metric was above- or below-target.
- Reporting the impact of an outage on the usage of your app, combining data, text explanation, and a discussion of next steps to prevent outages in the future.

1. Go to the More Blade to open the Workbook view

## Usage

- Users
- Sessions
- Events
- Funnels
- User Flows
- Retention
- Impact
- Cohorts
- ... More

## 2. Choose the "Analysis of Page Views" Template

To get started, choose a report or template below, or use 'Open' to open an existing report.

Search  ×
 Subscription 
 Consumption interne Microsoft Azure ▼

Quick start
 

Default Template  
A report with text and query sections.

Empty  
A completely empty report.

Recently modified more (0)  
No items found.

Usage (8)
 

Active Users
 

Analysis of Page Views

 Engaged Users
 New, Returning and Churned ...

Usage Calendar
 Usage by hours of the day
 Segmented Funnel
 Authenticated User Timelines

## 3. Add the Checkout page to "Pages" filter and analyze the "Checkout page" views statistics

### Analysis of Page Views

Page views correspond to user activity in your app. Understanding how your users interact with your pages will give you good insights into what is working in your app and what aspects need improvements.

This report will help you understand common page view behaviors like:

- Usage
- Time spent on page
- Time to first interaction
- Exit rates

If your telemetry does not include page views, then follow these [instructions](#) to begin collecting -- it is relatively straightforward.

Pages: 4 selected 1
 OtherFilters:  ✓
 TimeRange: Last 30 days
 OptimizeCalculationsFor : Balance ▼

☒ Shopping Cart - Parts Unlimited  
☒ Home Page - Parts Unlimited  
☐ Log in - Parts Unlimited  
☐ Product - Oil and Filter Combo - Parts Unlimited  
☐ Product - Matte Finish Rim - Parts Unlimited  
☐ Register - Parts Unlimited  
☐ Register Confirmation - Parts Unlimited  
☐ Confirm Email - Parts Unlimited  
☐ Product - Jumper Leads - Parts Unlimited  
☐ Address And Payment - Parts Unlimited  
☒ Checkout Complete - Parts Unlimited 2  
☐ Product - Filter Set - Parts Unlimited

This set of pages are used -- in terms of # of users, sessions and views.
 

	As % of app Users	Unique Sessions	As % of app Sessions	Total Page Views	As % of app Page Views
Shopping Cart - Parts Unlimited	100	7	100	81	55.86
Home Page - Parts Unlimited	100	7	100	30	20.69
Checkout Complete - Parts Unlimited	80	4	57.14	26	17.93
Product - Filter Set - Parts Unlimited	80	4	57.14	26	17.93

## 4. Edit the workbook

← Gallery **Edit** [Icons: Folder, Save, Copy, Paste, Delete, Undo, Redo, Share, Heart, Help]

## Time to First Interaction

This report helps you understand the time it takes for users to interact with your app's UI/flow.

Switch this workbook between editing mode and reading mode.

In reading mode, the view is simplified for reading instead of editing.

Editing mode shows all content of the workbook, including steps and parameters that would be hidden in reading mode.

TimeFrom [Start of the Session] to [End of the Session]

- Go to the bottom of the workbook and click the "Add text" link

**Add text** | Add query | Add metric | Add parameters

- Add the following description

Markdown text to display

---  
## All Page Views

Done Editing | Add text | Add query | Add metric | Add parameters | [Icons]

- Go to the bottom of the workbook and click the "Add metric" link

Add text | Add query | **Add metric** | Add parameters

- Click "Add metric"

**All Page Views**

[Edit]

Resource Type: Application Insights | Resource(s): PartsUnlimitedWebsite | Split by: | Time Range: Last 7 days | Visualization: Line chart | Size: Medium | Color palette: Auto

**Add metric**

Select a metric to see data appear on this chart.

Done Editing | Add text | Add query | Add metric | Add parameters | [Icons]

- Provide the metric parameters

Select Metric Parameters

Namespace <sup>1</sup>  
Log-based metrics

Metric <sup>2</sup>  
Page views

Aggregation <sup>3</sup>  
Sum

Save <sup>4</sup> Cancel

Select Metric Parameters Add metric

10. Click the "Done Editing" button

