

# Activate Azure with Application Insights

## ***Lab Guide***

January 15, 2025

Version 2.0

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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 2022 / 2019
- Access to Azure Portal
- Hands-on experience developing ASP.NET 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.

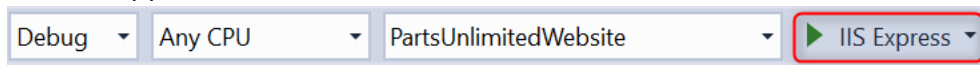
### 2.1 Download the application

1. Clone the code at <https://github.com/cmw2/Applns-PUL>.

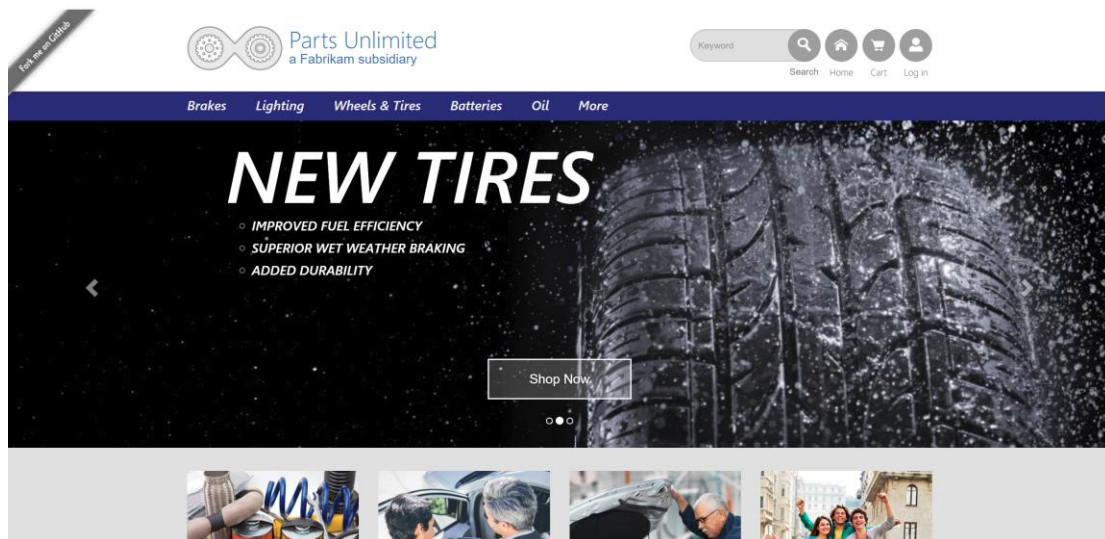
### 2.2 Run the application

1. Open the Visual Studio solution of modified Parts Unlimited ASP.NET application supplied with the lab materials (PartsUnlimited.sln)

2. Run the application



3. Explore the application, browse the catalog and add some products to the shopping cart.



## 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.

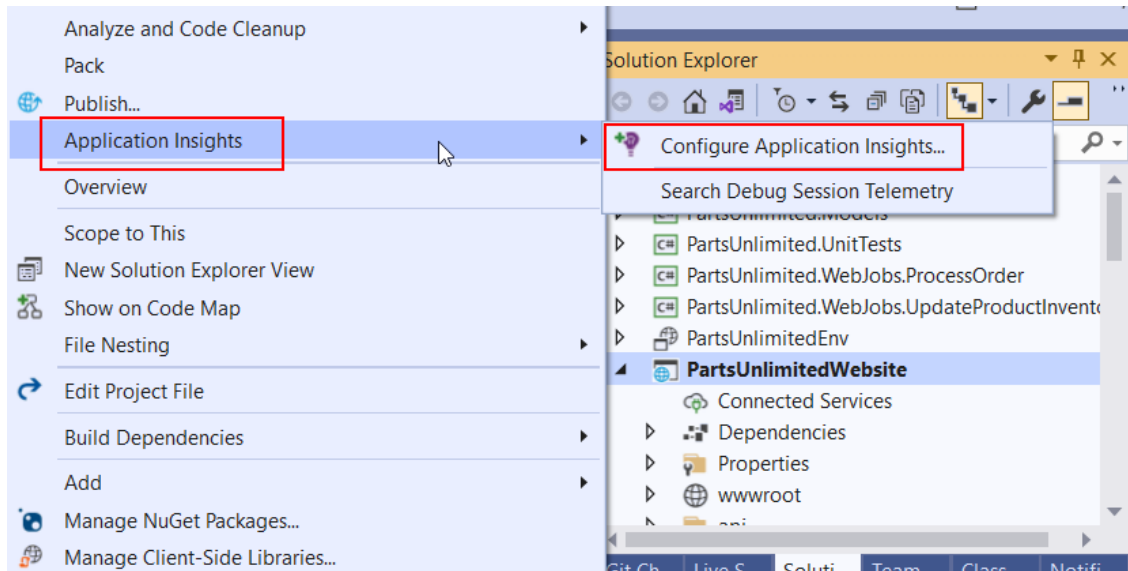
### 3.1 Create Application Insight Azure resource

1. Log on to the Azure Portal: <https://portal.azure.com>
2. Create a **Resource Group** named "rg-partsunlimited".
3. Create a **Log Analytics Workspace** named "law-partsunlimited" in your new resource group.
4. Create an **Application Insights** resource named "appins-partsunlimited" in your new resource group, referencing your new log analytics workspace.

### 3.2 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.

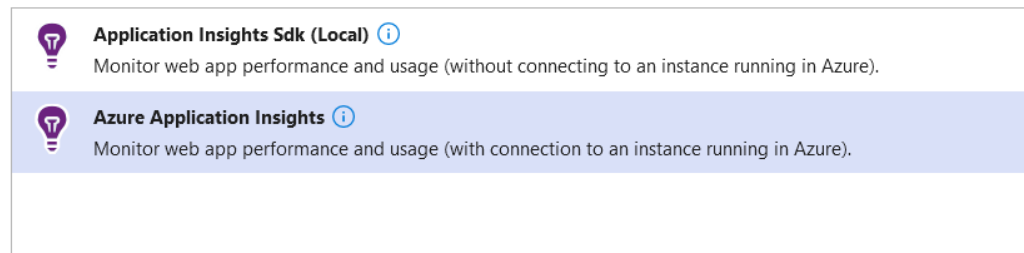
1. From Visual Studio solution Explorer tab, right click the **PartUnlimitedWebsite** project. Select "**Application Insights | Configure Application Insights ...**" option.



2. Select the **Azure Application Insights** and click **Next**.

## Configure dependency

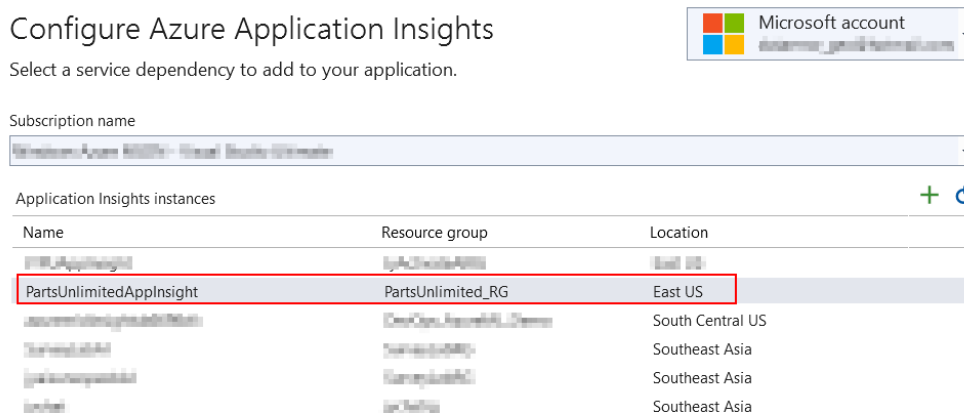
Select a service dependency to add to your application.



3. Select the Azure subscription where you previously create the Application Insight resource and the Application Insights instance you created. Click **Next**.

## Configure Azure Application Insights

Select a service dependency to add to your application.




4. In the Configure Azure Application Insights dialog, select **Local user secrets files**, click **Next**. Click **Finish**.

## Configure Azure Application Insights

Provide connection string name and specify how to save it

Connection string name

Connection string value

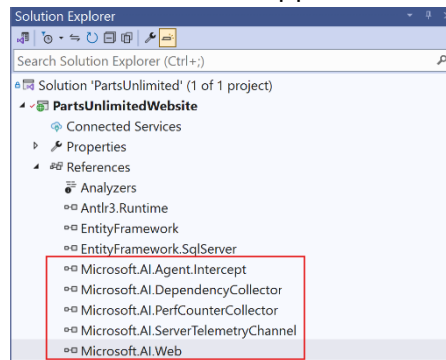
 Tip: avoid pasting application secrets directly into your code.

Save connection string value in [Learn more](#)

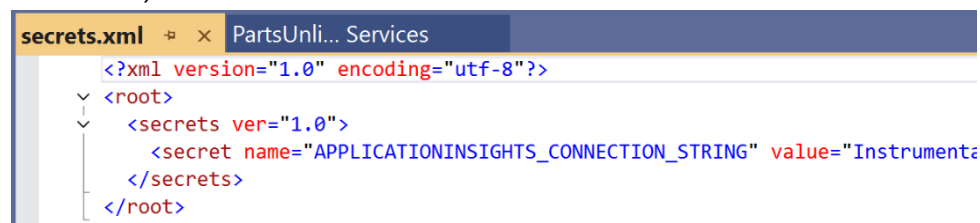
☒ Local user secrets file

☐ None

5. Let's review the modifications that have been done by the Application Insights integration tool
  - Check the "PartsUnlimitedWebsite" for Application Insights NuGet Dependencies



- Right click the project to Manage User Secrets and see the Application Insights connection string. (NOTE: Ensure that it stored the full connection string value and not just the Instrumentation Key. If just the instrumentation key, then replace the value with the full connection string which you can get from the Application Insights resource Overview blade.)



- Check the ApplicationInsights.config file
6. Let's add the additional code to enable Application Insights to capture the telemetry from the client side.



7. First let's make the new secret value available as an ApplicationSetting. In **Web.config** add **configBuilders="secrets"** to your AppSettings line.

```
<appSettings configBuilders="Secrets">
```

And add a new appsetting:

```
<add key="APPLICATIONINSIGHTS_CONNECTION_STRING" value=""/>
```

8. Now add in the JavaScript snippet.
  - a. Create a new partial view called **\_ApplicationInsights.cshtml** in the **Views/Shared** folder.
  - b. Paste in the JS snippet from [Microsoft Azure Monitor Application Insights JavaScript SDK - Azure Monitor | Microsoft Learn](#).
  - c. There is an @ character that will confuse Razor, so search for it and escape it by adding a second @ symbol.
  - d. Finally, set the value of the connection string by reading from AppSettings:  
"@System.Web.Configuration.WebConfigurationManager.AppSettings.Get("APPLICATIONINSIGHTS\_CONNECTION\_STRING")"
9. Now adjust your **Views/Shared/\_Layout.cshtml** file to render the above partial view by adding the below line right before the first existing @Scripts.Render element.

```
@Html.Partial("_ApplicationInsights")
```

10. Your layout file will look like:

```
<head>
  <meta charset="utf-8" />
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <title>@ViewBag.Title - Parts Unlimited</title>
  @Styles.Render("~/Content/css")

  @Html.Partial("_ApplicationInsights")
  @Scripts.Render("~/bundles/modernizr")
  @Scripts.Render("~/bundles/jquery")
  @Scripts.Render("~/bundles/bootstrap")
  @Scripts.Render("~/bundles/signals")*@
  @*<script src="/signals/hubs"></script>*@
  @Scripts.Render("~/bundles/site")
</head>
```

11. Test:
  - a. Run the application
  - b. Inspect the html and ensure the javascript snippet is in place and the connection string is populated correctly.
  - c. In developer tools, open the network tab. Click a link on the site to navigate to a new page. In the network tab, look for successful "track" calls. These are the calls sending browser based telemetry to Application Insights. Inspect their payload to get a feel for what is being sent.

- d. Now check your Application Insights resource for telemetry. Check Transaction Search to see you are receiving requests and page views. (It may take a few minutes for data to show up.)
- e. With Visual Studio running, try Live Metrics and after it connects watch the telemetry come in as you click around the web site.

### 3.3 Setup Application Insights authenticated users monitoring

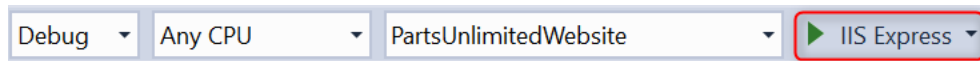
For this exercise, we will examine how to update Parts Unlimited application source code to enhance usage analysis data collection for authenticated users.

1. Find the file **App\_Start/ApplicationInsightsConfig.cs**. This has been pre-filled with the needed code but it's commented out. Uncomment it all. This code sets the authenticated user for any telemetry generated on the server.
2. In **Global.asax**, add the below line right after RegisterAllAreas:  
`ApplicationInsightsConfig.Configure();`
3. The code we un-commented also sets the application insights configuration string via code using app settings, so we can remove the hardcoded value in **ApplicationInsights.config**. Open that file and comment out the line that sets the connection string. You'll find it near the bottom of the file.
4. Next we'll set the authenticated user context in the browser. Open the file **Views/Shared/\_login.cshtml** under the "PartsUnlimitedWebsite" project. Add this code to the end of the authenticated section:

```
<script>  
    appInsights.setAuthenticatedUserContext("@User.Identity.Name.Replace("\\",  
    "\\\\").replace(/[,;=| ]+/g, "-");  
</script>
```

### 3.4 Running the application

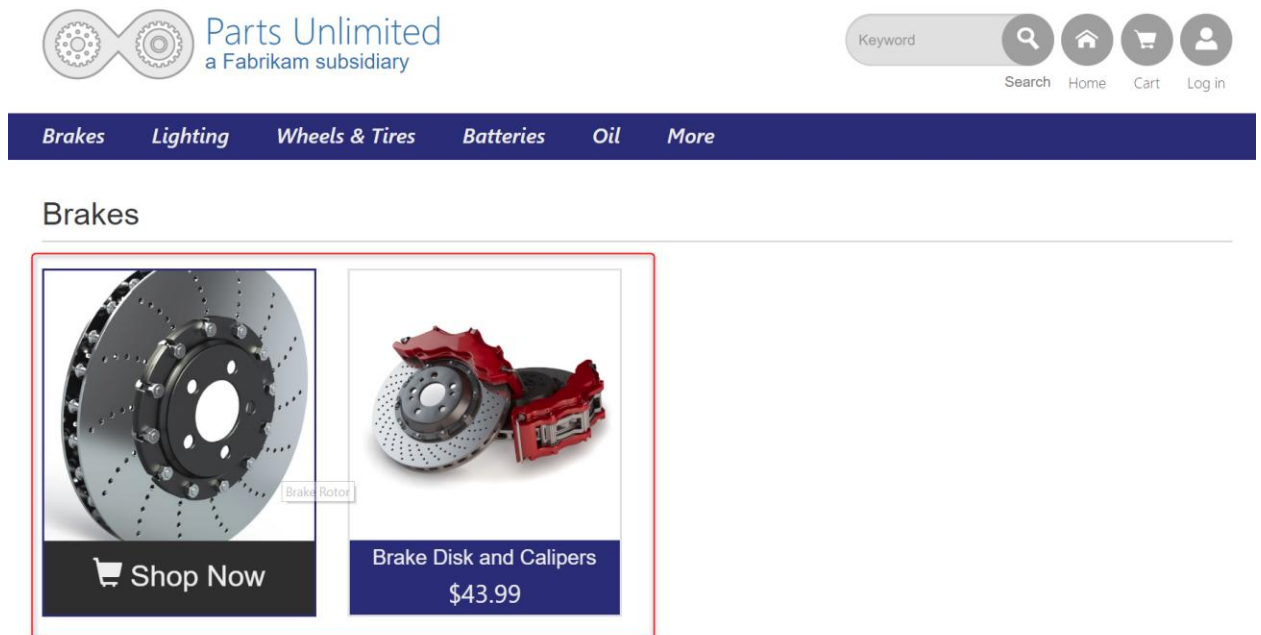
Once the application is integrated with Application Insights, run the solution



1. Browse available product's categories




2. Browse a product description



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**

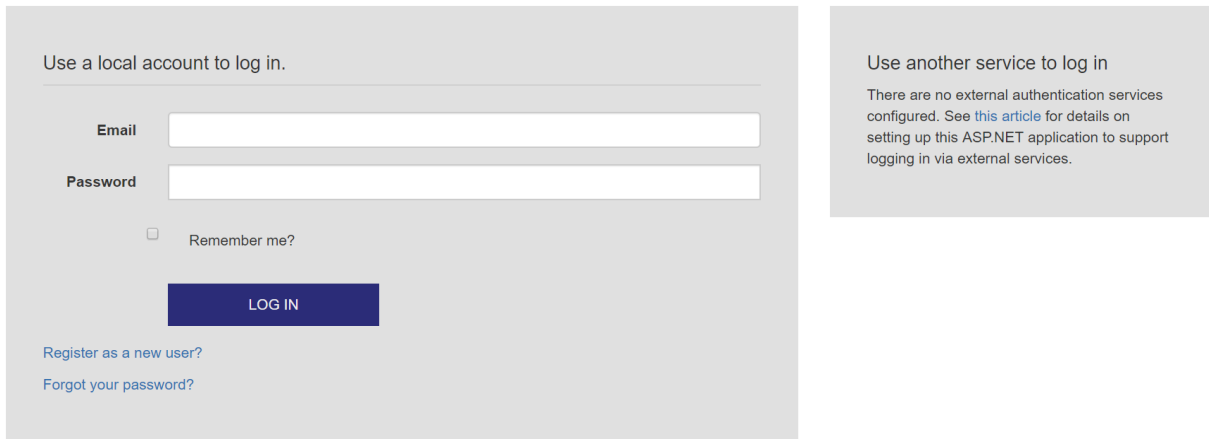
- Click "Checkout" button

## Review your Cart

| Product Description  | Quantity | Price           |
|--|----------|-----------------|
|  <p><b>Brake Rotor</b><br/>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.</p> | 1        | \$18.99         |
|  |          | <b>REMOVE</b>   |
| Sub Total  |          | \$18.99         |
| Shipping   |          | \$5.00          |
| Tax  |          | \$1.20          |
| <b>Total</b>   |          | <b>\$25.19</b>  |
|  |          | <b>CHECKOUT</b> |

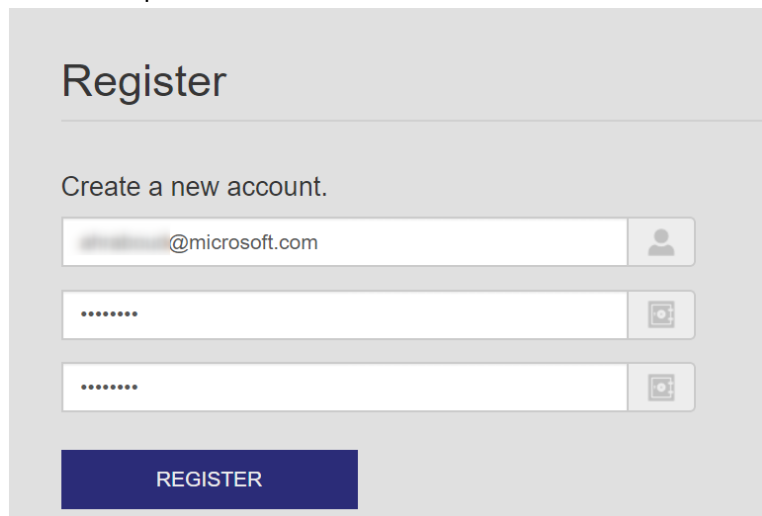
- Click the "Register as a new user?" link to signup

Log in.



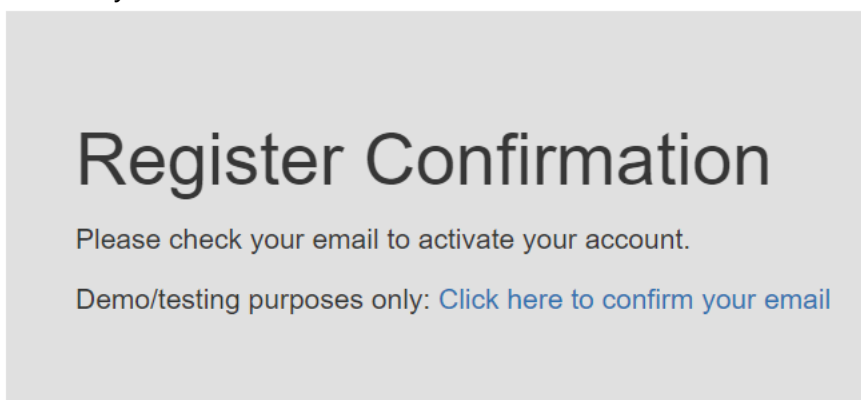
The login form is titled "Use a local account to log in." and contains fields for "Email" and "Password". Below these fields is a checkbox labeled "Remember me?". A blue "LOG IN" button is positioned below the checkbox. At the bottom of the form, there are two links: "Register as a new user?" and "Forgot your password?". To the right of the login form, a separate box titled "Use another service to log in" contains the text: "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."

6. Fill your account Email and Password then click "**Register**" button. You don't need to enter a real email since this application is not able to send email, you will not go through a real email confirmation process.



The register form is titled "Register" and contains the text "Create a new account." Below this text are three input fields: the first is for the email address, showing a placeholder "@microsoft.com"; the second and third are for the password, both masked with dots. To the right of each input field is a small icon representing the field type (person for email, key for password). A blue "REGISTER" button is located at the bottom of the form.

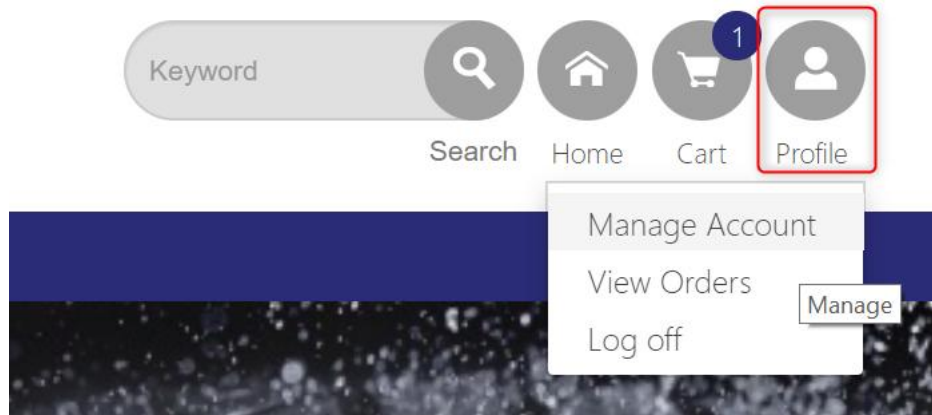
7. Confirm you email



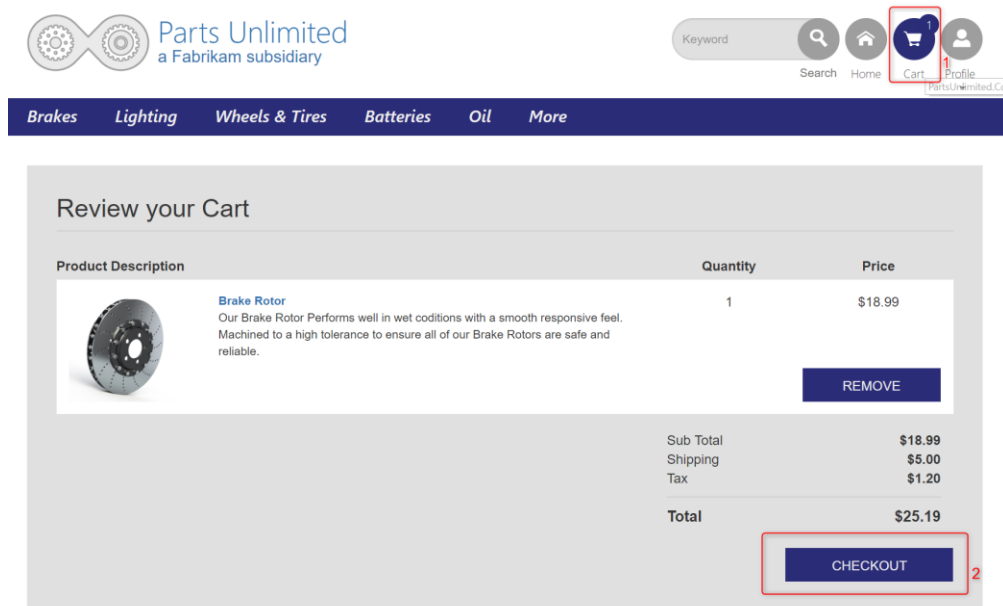
The confirmation message is titled "Register Confirmation" and contains the text "Please check your email to activate your account." Below this text is a link: "Demo/testing purposes only: [Click here to confirm your email](#)".

8. Now Signin using the newly created account credentials

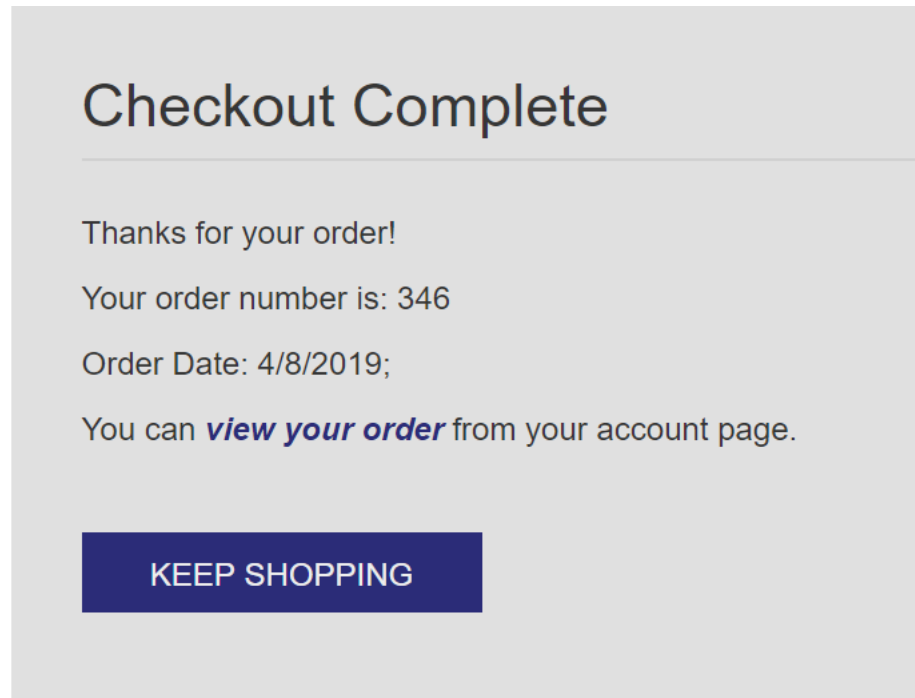
9. Click on your "Profile" link and choose "Manage Account" to visit you profile management page.



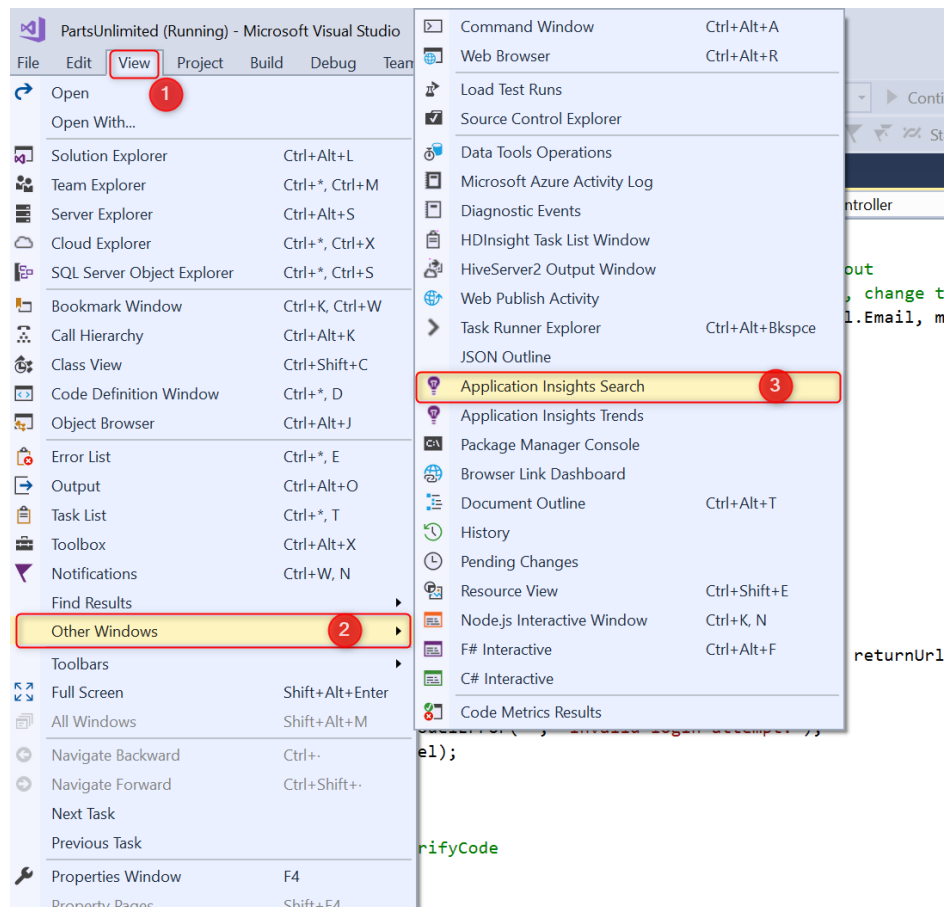
10. Now go back to you Cart summary page and click the "Checkout" button



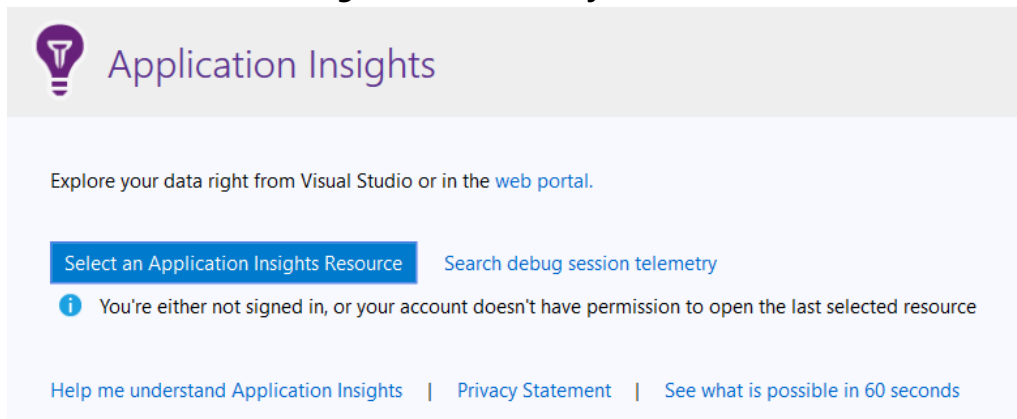
11. Enter a shipping address and "FREE" as the promo code. Click "Submit" button.
12. Confirm your order



- Go back to Visual Studio and open the "View | Other Windows | Application Insights Search" View

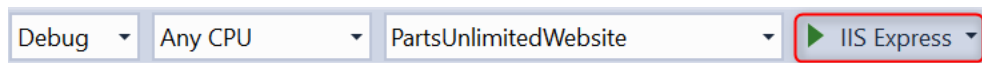


14. Click on the **Search debug session telemetry**.

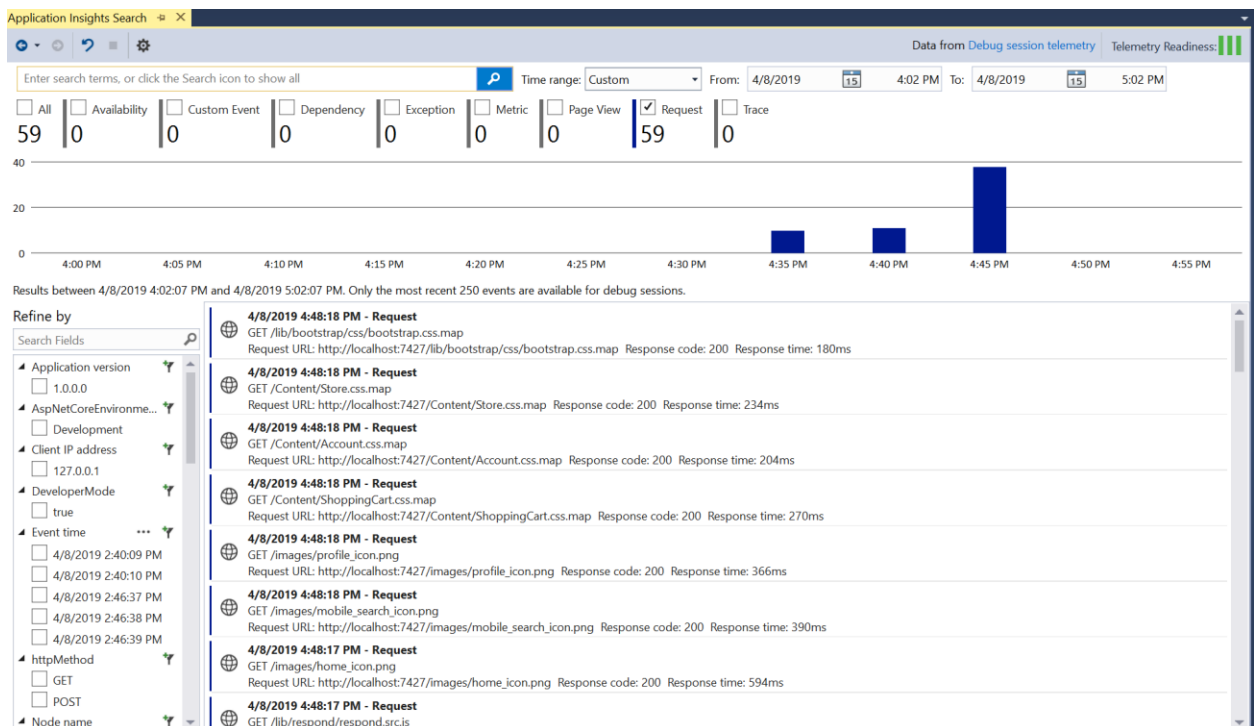


15. Replay steps from 1 to 12 many times using browser private navigation feature to generate more user's related metrics.

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



16. You can browse and search the collected metrics locally using the "Application Insights Search". If you don't what you can search for, just click the Search icon and continue to explore.



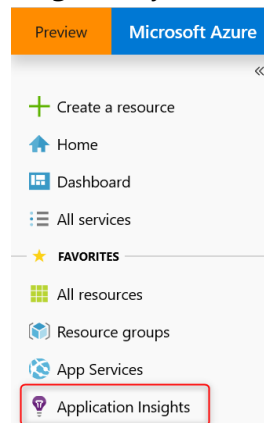
17. You can search for "checkout" and "login". Look at the result of the search.



## 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

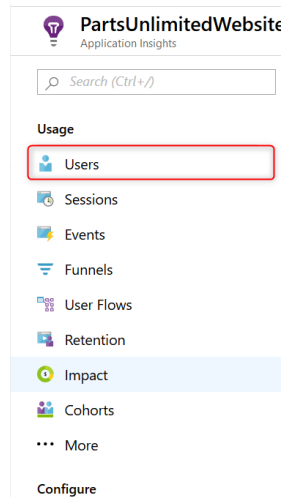
### 4.1 Examining Users, Sessions and Events

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

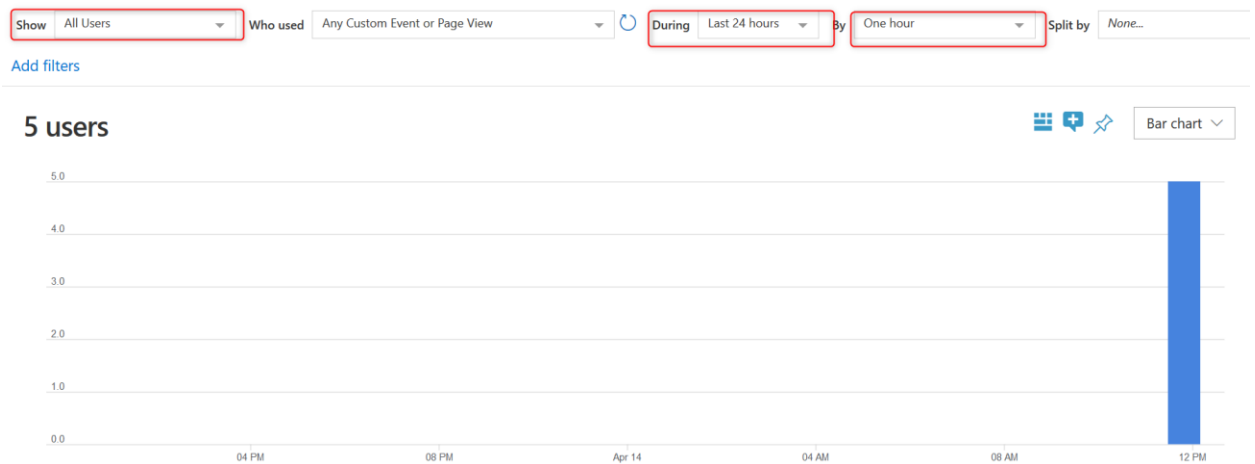
#### 4.1.1 Users

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.

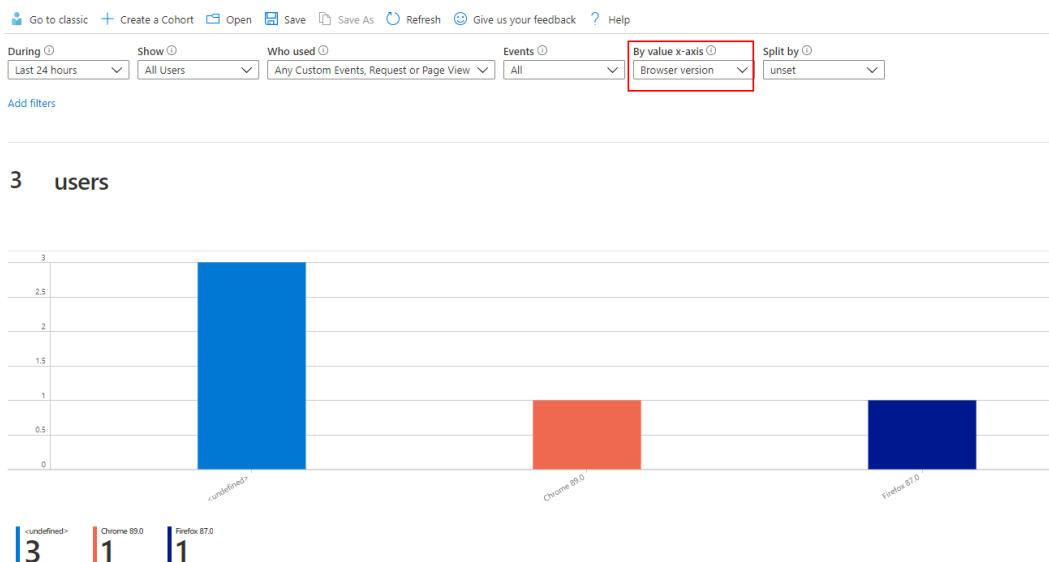
1. Go to the **Users** Blade



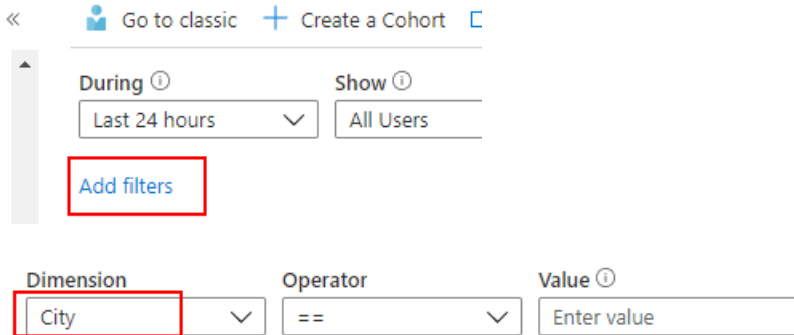
- As soon as the user blade have been loaded, you have an insight about all users' statistics since the last 24 hours by hour



- 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



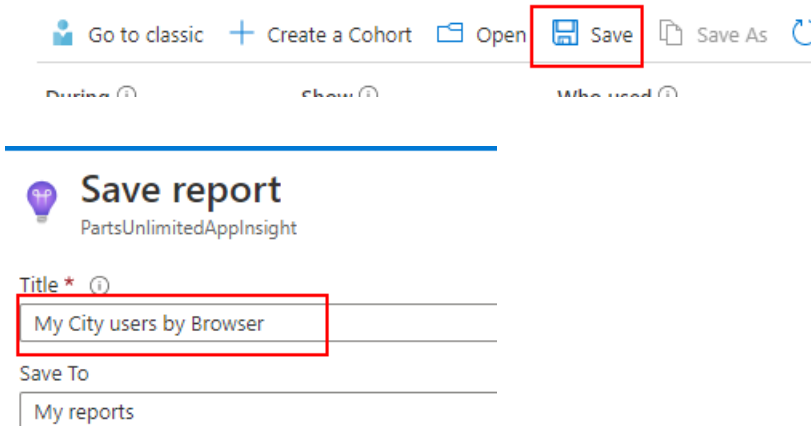
« [Go to classic](#) [+ Create a Cohort](#) [C](#)

During ⓘ Last 24 hours Show ⓘ All Users

[Add filters](#)

Dimension City Operator == Value ⓘ Enter value

- 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



[Go to classic](#) [+ Create a Cohort](#) [Open](#) [Save](#) [Save As](#) [Refresh](#)

During ⓘ Show ⓘ Who used ⓘ

### Save report

PartsUnlimitedAppInsight

Title \* ⓘ My City users by Browser

Save To My reports

- Go to the "Meet your users" section



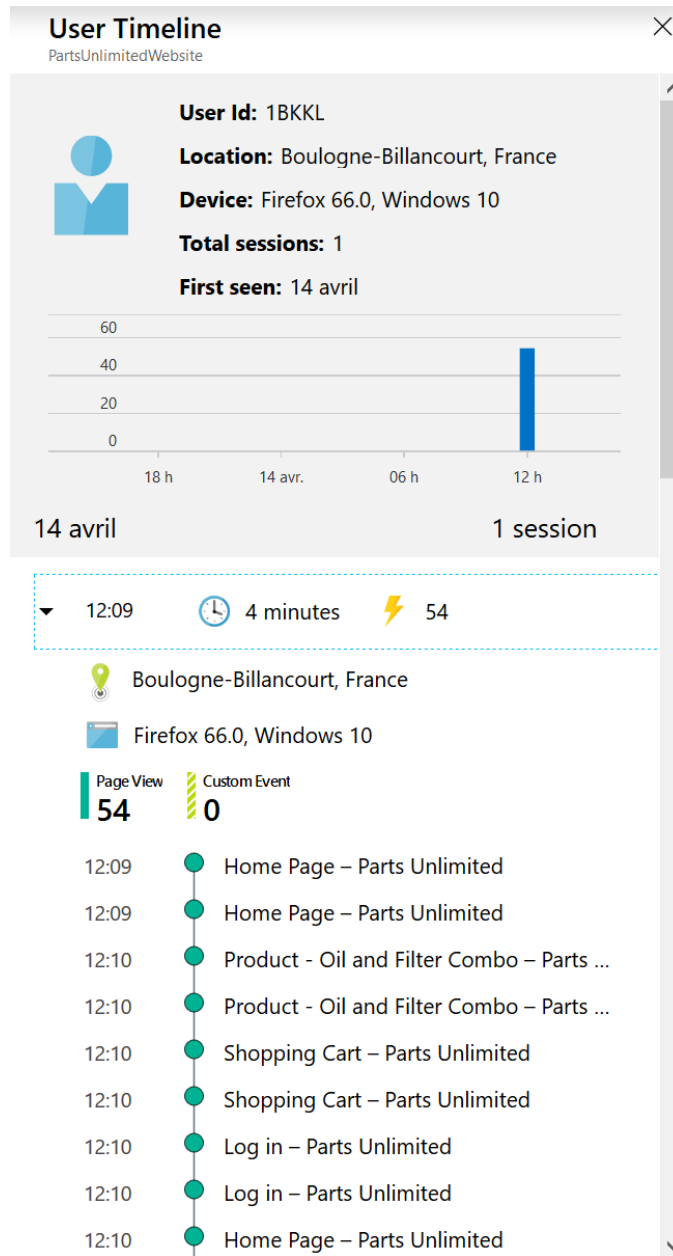
MEET YOUR USERS [Show Any 5 Users](#) [Refresh](#)

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

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

[View More Insights](#)

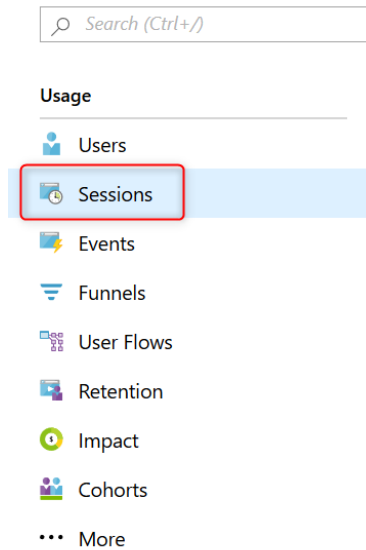
- Click on any user to open the Timeline blade to have an overview about all the user actions over all sessions



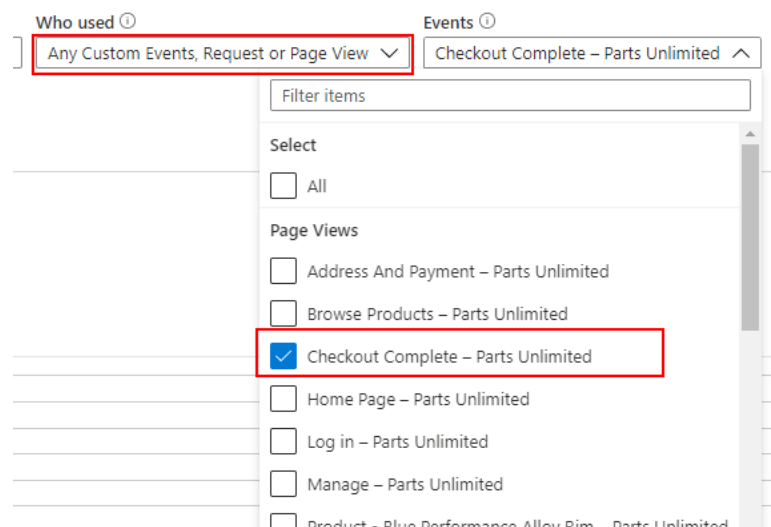
## 4.1.2 Sessions


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 **Sessions** 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 "Events" 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](#)

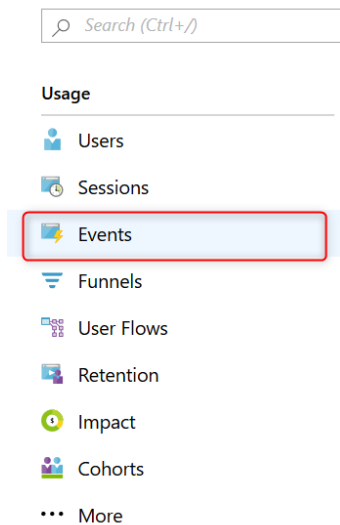
- Click on any session to open the Timeline blade to have an overview about this session events

| ACTIVE SESSIONS   |                              |   |                              |   | Show Any 5 sessions <span>▼</span> <span>🔄</span> |
|---|------------------------------|---|------------------------------|---|---|
|    | Boulogne-Billancourt, Fra... |    | Boulogne-Billancourt, Fra... |    | Boulogne-Billancourt, Fra...                      |
| Events: 54  |                              | Events: 34  |                              | Events: 18  |   |
| OS: Windows 10  |                              | OS: Windows 10  |                              | OS: Windows 10  |   |
| Browser: Firefox 66.0   |                              | Browser: Firefox 66.0   |                              | Browser: Firefox 66.0   |   |
|  | Boulogne-Billancourt, Fra... |  | Boulogne-Billancourt, Fra... |  | Boulogne-Billancourt, Fra...                      |
| Events: 16  |                              | Events: 2   |                              | Events: 2   |   |
| OS: Windows 10  |                              | OS: Windows 10  |                              | OS: Windows 10  |   |
| Browser: Firefox 66.0   |                              | Browser: Chrome 73.0  |                              | Browser: Chrome 73.0  |   |

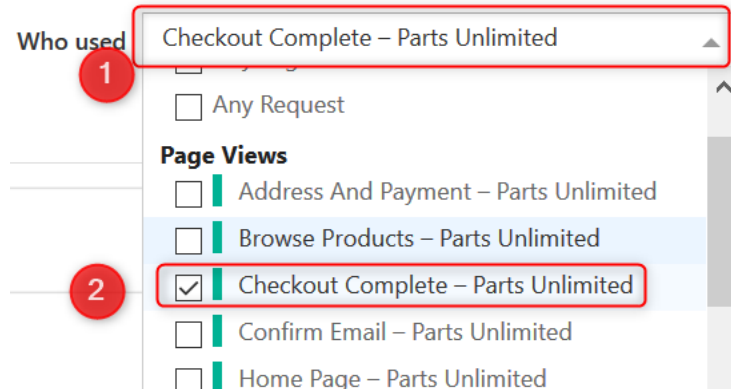
### 4.1.3 Events


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

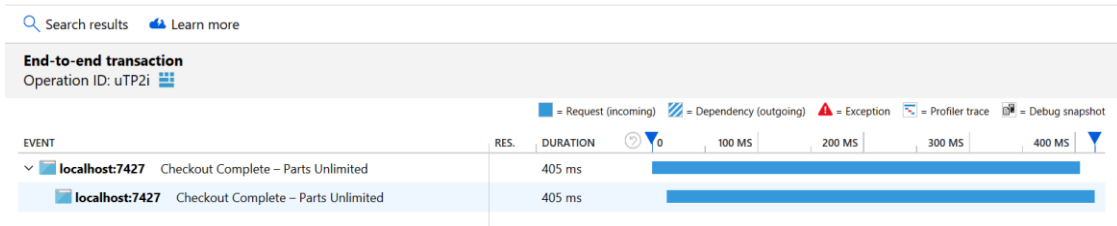
EVENT STATISTICS Page View 2

| 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](#)

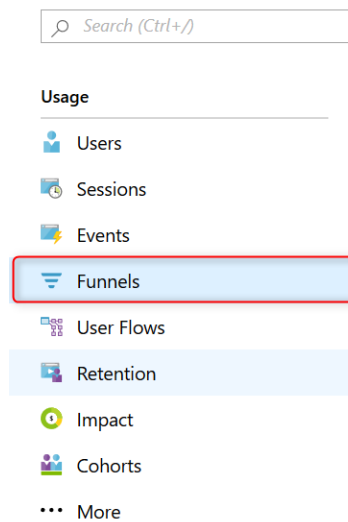
- Click on any event to open the "End-to-end transaction details" view to have more details



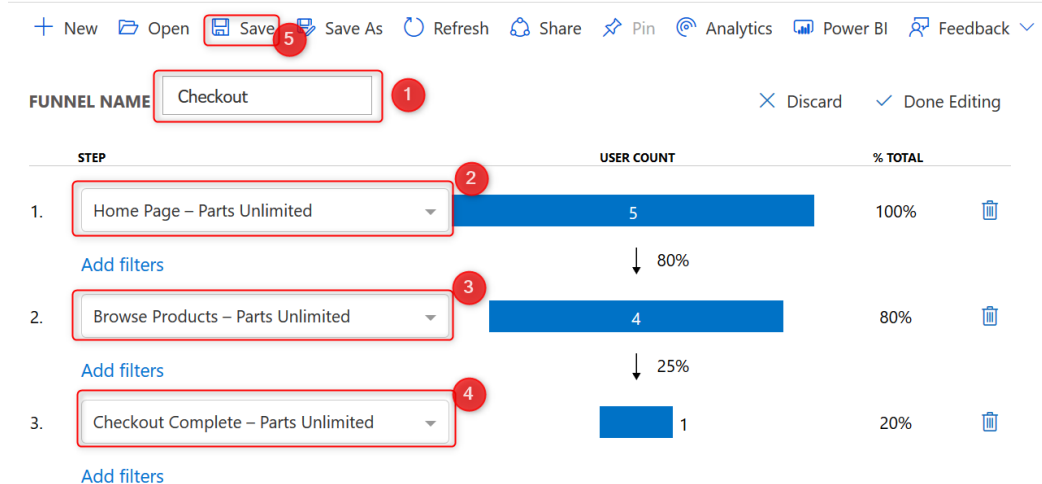
## 4.2 Examining Funnels

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"



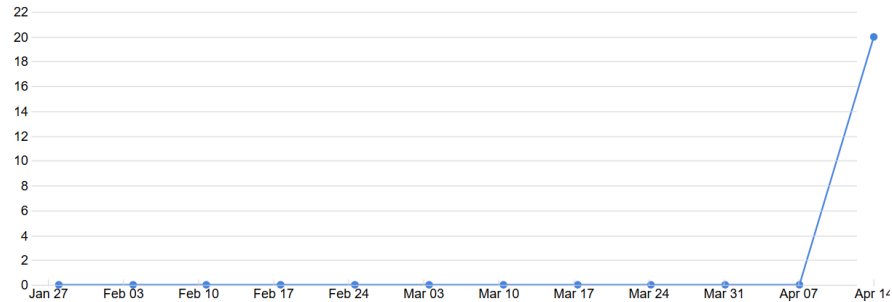
## 3. Check the "summary" section for conversion rate



#### SUMMARY

| CONVERSION | START COUNT   | END COUNT   |
|------------|---|---|
| 20%        | 5  | 1  |

#### HISTORICAL CONVERSION BY WEEK

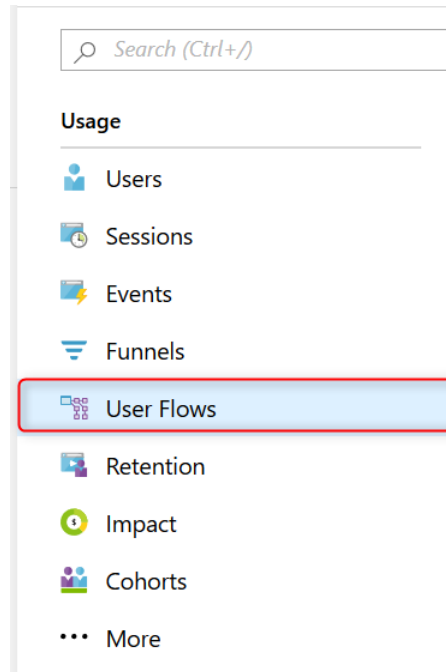


## 4.3 Examining User Flows

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

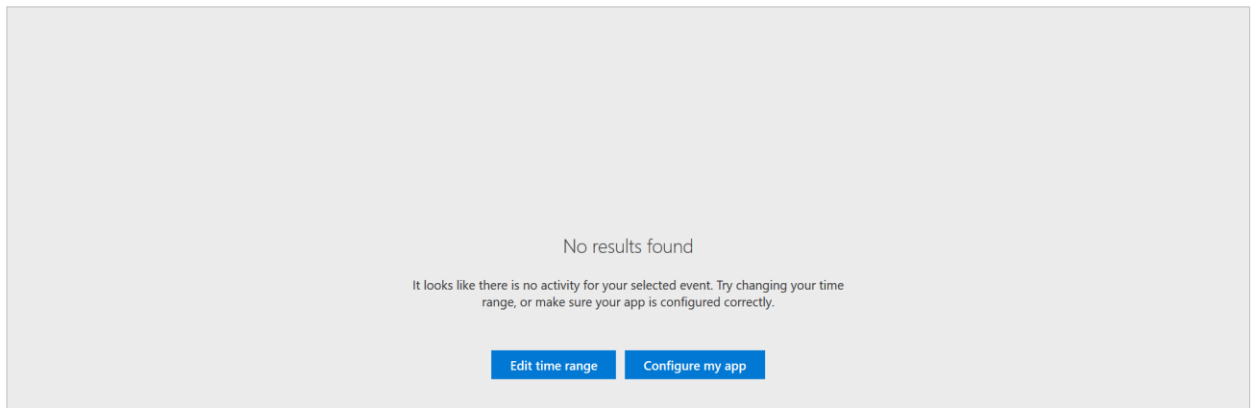
- How do users navigate away from a page on your site?
- What do users click on a page on your site?
- Where are the places that users churn most from your site?
- Are there places where users repeat the same action over and over?

### 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** **Scope** **Optimize for**

1 day 2 Sessions Performance

**Filters**

[Add filter](#)

**Included Events (97)** [Exclude all events](#)

All events 3

| Event                                 | Count  |
|---------------------------------------|--------|
| Address And Payment – Parts Unlimited | 266    |
| Browse Products – Parts Unlimited     | 262626 |
| Checkout Complete – Parts Unlimited   | 244    |
| Confirm Email – Parts Unlimited       | 444    |
| DEBUG /                               | 133    |
| GET /Content/Account.css              | 192525 |
| GET /Content/Account.css.map          | 033    |

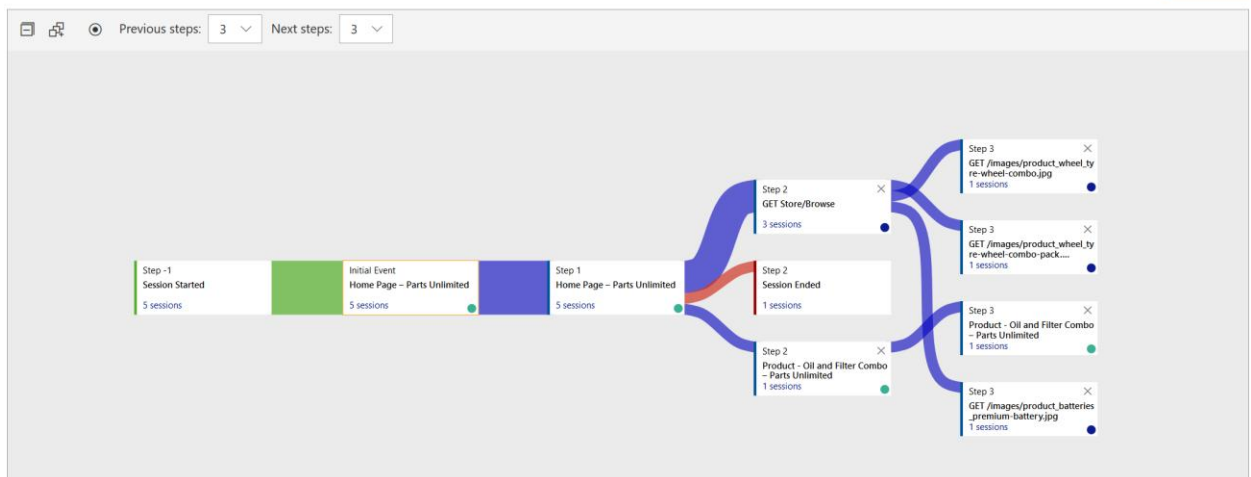
**Excluded events**

[Create Graph](#) 4 [Cancel](#)

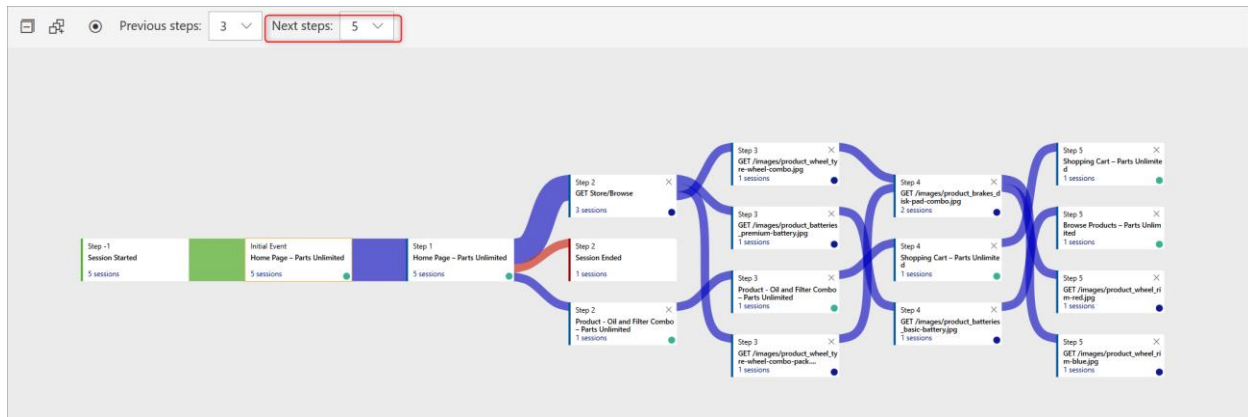
#### 4. Analyze your users flow before and after the home Page

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    |
| Product - Parts Unlimited                              | 262626 |
| Product - Parts Unlimited                              | 244    |
| Product - 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. Click the Impact Analysis Workbook



### Good News: The User Impact Analysis experience is moving to Azure Workbooks

Workbooks let you customize reports using a flexible canvas for data analysis, connect to more data sources, and display your data with r

You can find the new User Impact Analysis workbook in the gallery under the name "User Impact Analysis", or by clicking the "Impact Ana  
you can still access the classic User Impact Analysis experience. [Classic impact](#)

If you saved any customized classic User Impact Analysis views, we recommend you save your customizations as new custom workbooks.

## Impact Analysis Workbook


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

- For Selected event: Home Page – Parts Unlimited
- For analyze how its: Device type
- For Impacting event: Checkout Complete – Parts Unlimited

## Impact

PartsUnlimitedAppInsight

 Workbooks  Edit     ? Help  Auto refresh: Off

 Application Insights based Workbooks are transitioning to full Azure Workbooks. New saved Workbooks inside Application Insights will be full Azure Workbooks. Legacy Workbooks will be avail

| During ⓘ        | Selected event ⓘ  | analyze how its ⓘ | Impacting event ⓘ   | Bucketize by ⓘ |
|-----------------|---|-------------------|---|----------------|
| Last 24 hours ▼ |  Home Page – Parts Unlimited ▼ | Device type ▼     |  Checkout Complete – Parts Unlimited ▼ | Ventiles ▼     |

Hide Filters Add selected event filters Add impacting event filters

**Show data**

## 4. Click **Show data**

[Hide Filters](#)
[Add selected event filters](#)
[Add impacting event filters](#)

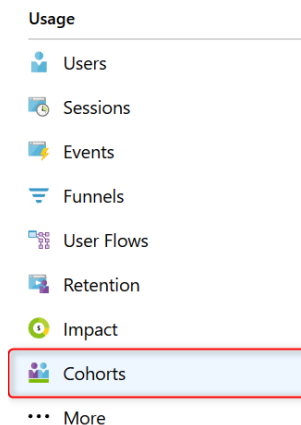
"Checkout Complete – Parts Unlimited" usage bucketized by "client\_Type" of "Home Page – Parts Unlimited"

| Bucket  | ↑↓ | "Checkout Complete – Parts Unlimited" Us...↑↓ | Conversi... ↑↓ |
|---------|----|---|----------------|
| Browser |    | 5 events with 3 converted and 2 lost          | 60%            |
| Overall |    | 5 events with 3 converted and 2 lost          | 60%            |

## 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

**Saved Cohorts** **Template Gallery** <sup>1</sup>

Get started with creating a cohort by selecting one of our example templates below - or dive right in and create a new cohort from scratch

**Users**

- Blank Users cohort
- Blank Authenticated users cohort** <sup>2</sup>
- Engaged Authenticated Users -- by Days Used
- Engaged Users -- by Days Used

**Sessions**

- Blank Sessions cohort
- Long sessions

**Events**

- Blank Events cohort
- Events Picker

### 3. Provide a description for the cohort

← Back to gallery   Rename   Delete   Revert changes   Save   Save As   Share   Refresh   Feedback   ? Help

Markdown text to display

```
## Country Authenticated users cohort
---
Get authenticated users from a specific country
```

Done Editing

### 4. Add a new parameter

**Add Parameter**   Style: Pills

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

**New Parameter**  
PartsUnlimitedWebsite

Save   Cancel   ? Help

\* Parameter name <sup>1</sup> Country

Parameter type <sup>2</sup> Drop down

Required? ☐

Allow multiple selections ☐

Limit multiple selections ☐

Delimiter

Quote with

Explanation

Hide parameter in reading mode ☐

Get data from <sup>3</sup> Query   JSON

Application Insights Logs Query <sup>4</sup>

Run Query   Time Range    Samples

### 6. Pick the Country sample, click 'Use this 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 `where name == '{parameter}'`, or `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 `where client_CountryOrRegion == '{parameter}'`

```

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

Country

## 8. Set the country value to your specific country

Add Parameter

Style

Pills

Country

France

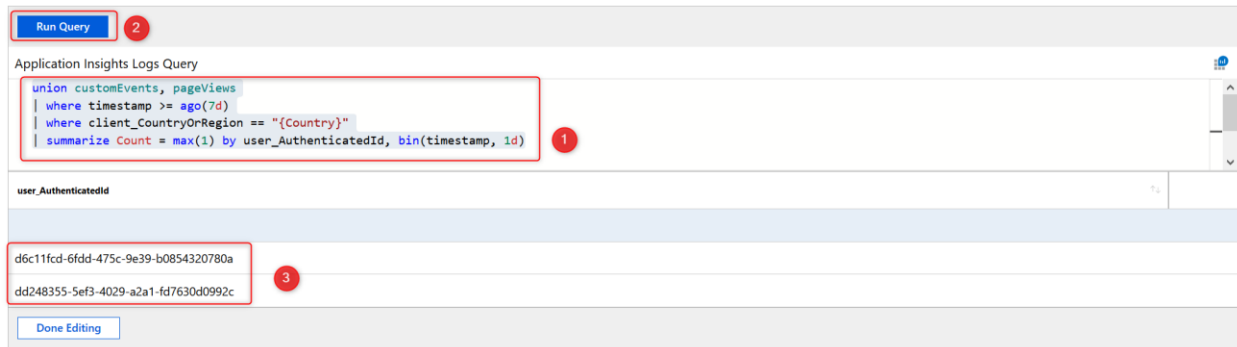
## 9. Paste the following query in the Application Insights Logs query textbox and click the "Run Query" button to get the result overview

```

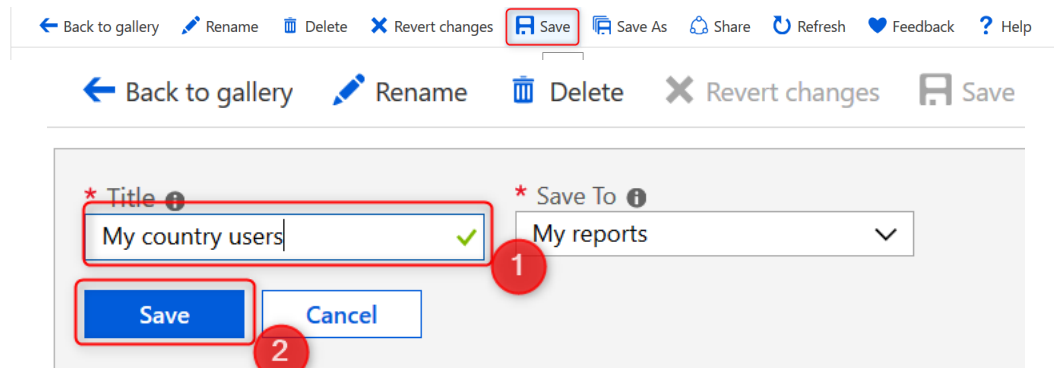
union customEvents, pageViews
| where timestamp >= ago(7d)
| where client_CountryOrRegion == "{Country}"
| summarize Count = max(1) by user_AuthenticatedId, bin(timestamp, 1d)

```

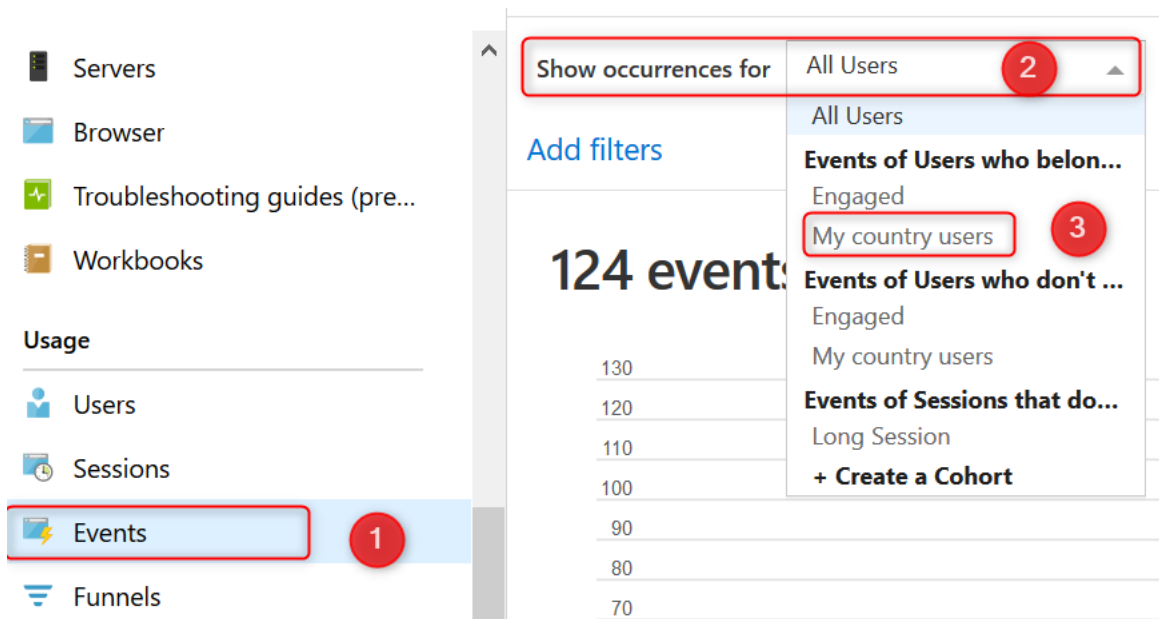




## 10. Save the cohort



## 11. 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

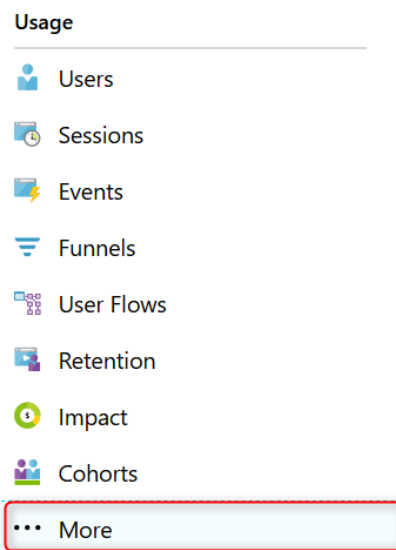
## 4.6 Viewing Workbook

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



2. Choose the "Analysis of Page Views" Template

+ New Refresh Feedback ? Help Community Git repo Browse across galleries

All Workbooks Public Templates My Templates

Filter by name or category Subscript... Resource Group : All Reset filters

Public Templates (18)

| Template name          | Category    | Description                            |
|------------------------|-------------|--|
| Empty                  | Quick start | A completely empty workbook.           |
| Default Template       | Quick start | A report with text and query sections. |
| Active Users           | Usage       |  |
| Analysis of Page Views | Usage       |  |

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 OtherFilters: Enter value TimeRange: Last 30 days OptimizeCalculationsFor Balance

Usage

This section shows the pages used -- in terms of # of users, sessions and views.

| Page Name                              | 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

### Time to First Interaction

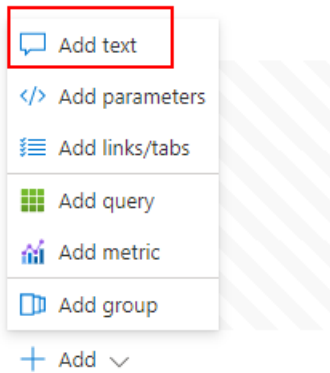
Switch this workbook between editing mode and reading mode.

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

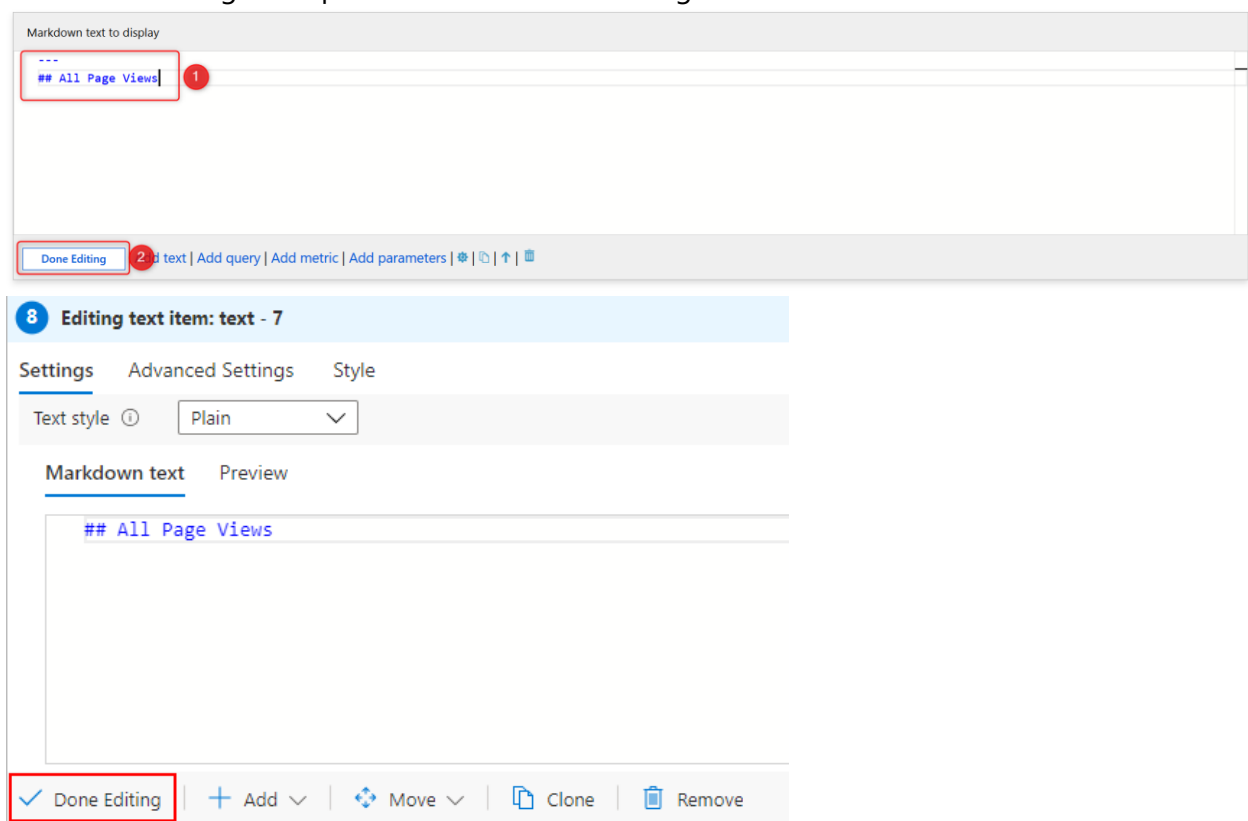
In reading mode, the view is simplified for reading instead of editing.

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

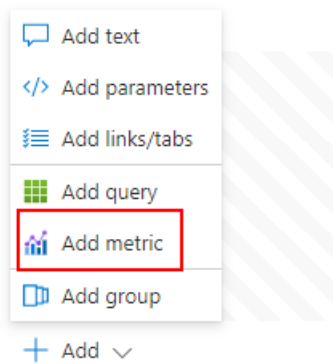
5. Go to the bottom of the workbook and click the "Add text" link



6. Add the following description and click 'Done Editing'.

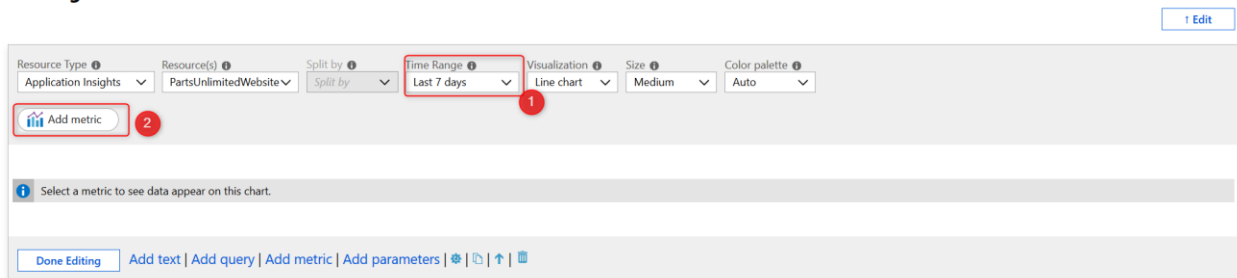


7. Go to the bottom of the workbook and click the "Add metric" link

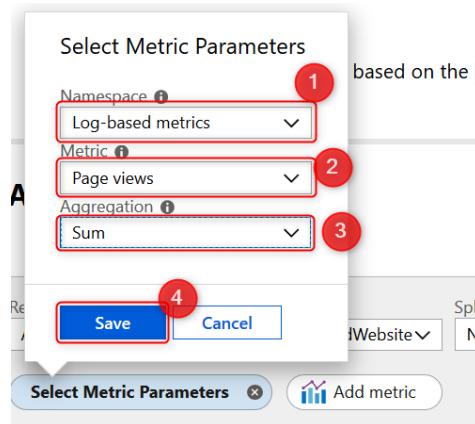


8. Click "Add metric"

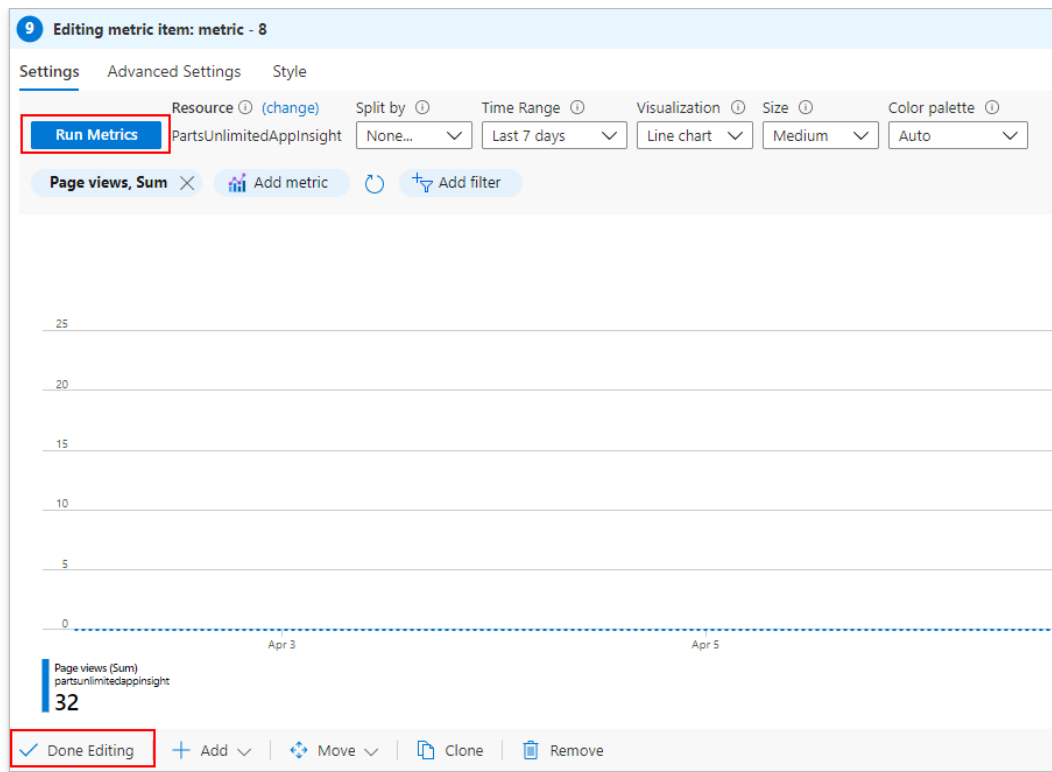
**All Page Views**



9. Provide the metric parameters, click Save.



10. Click on 'Run Metrics' and Done Editing' button.



11. Click the "Done Editing" button on the top.



12. You should be able to see the chart at the bottom of the page.

