

**DATE: 28/09/2018**

**Practical no: 10**

**AIM: Configure windows firewall to block**

- 1) A port**
- 2) An Program**
- 3) A Website**

**Different Types of Profiles available/ When does this rule applies**

**Domain: Applies when computer is connected to corporate domain**

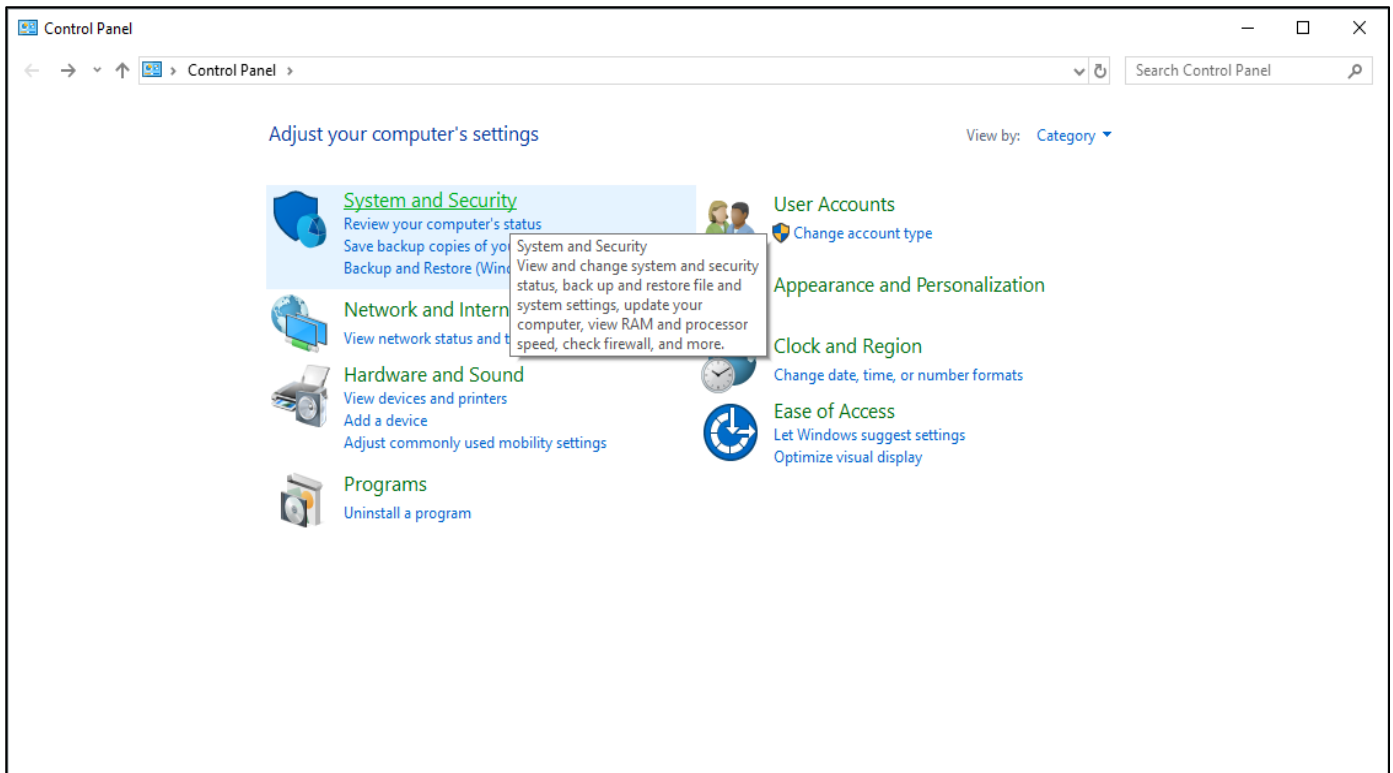
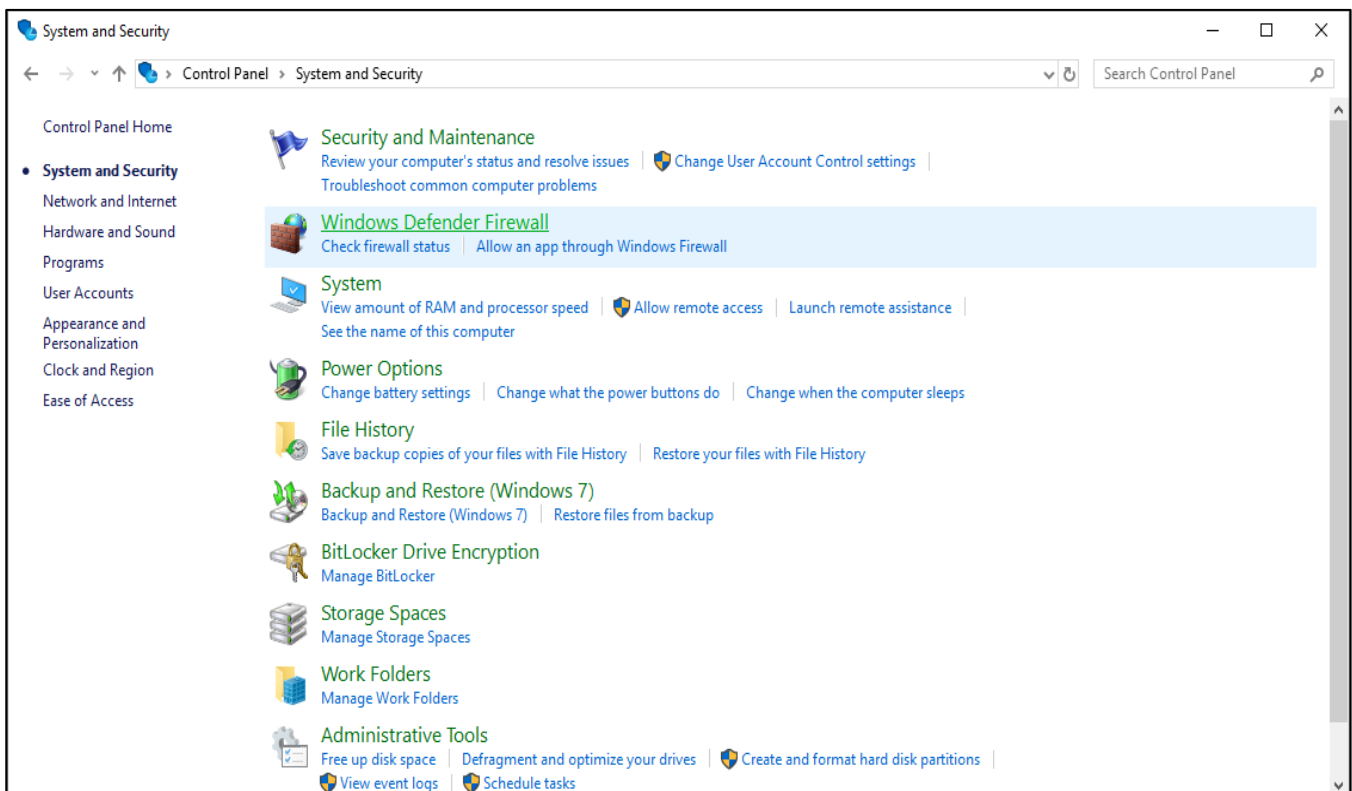
**Private: Applies when computer is connected to a private network location, such as a home or workplace.**

**Public: applies when computer is connected to public network connection**

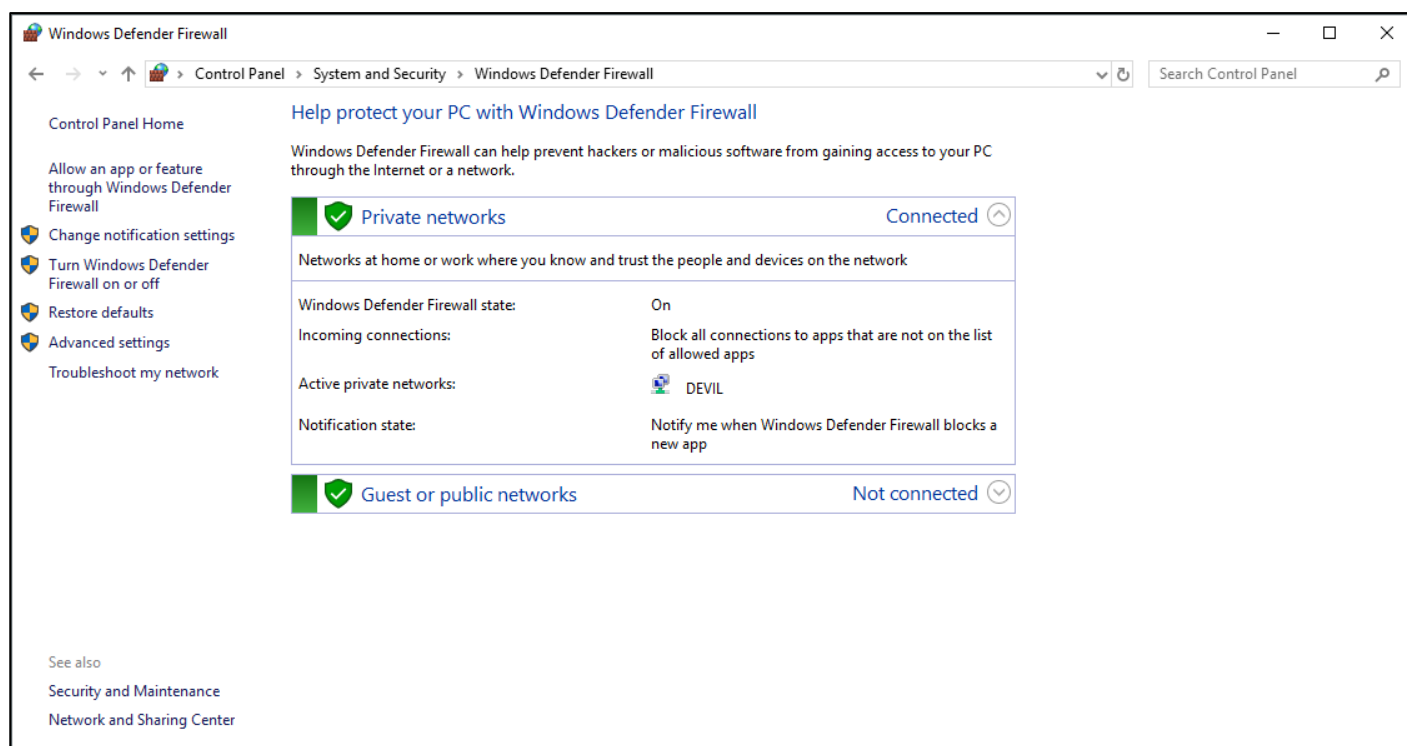
**Different types of actions available/What action should be taken when a connection matches the specified the conditions**

**Allow the connection: This includes connections that are protected with IPsec as well as those are not**

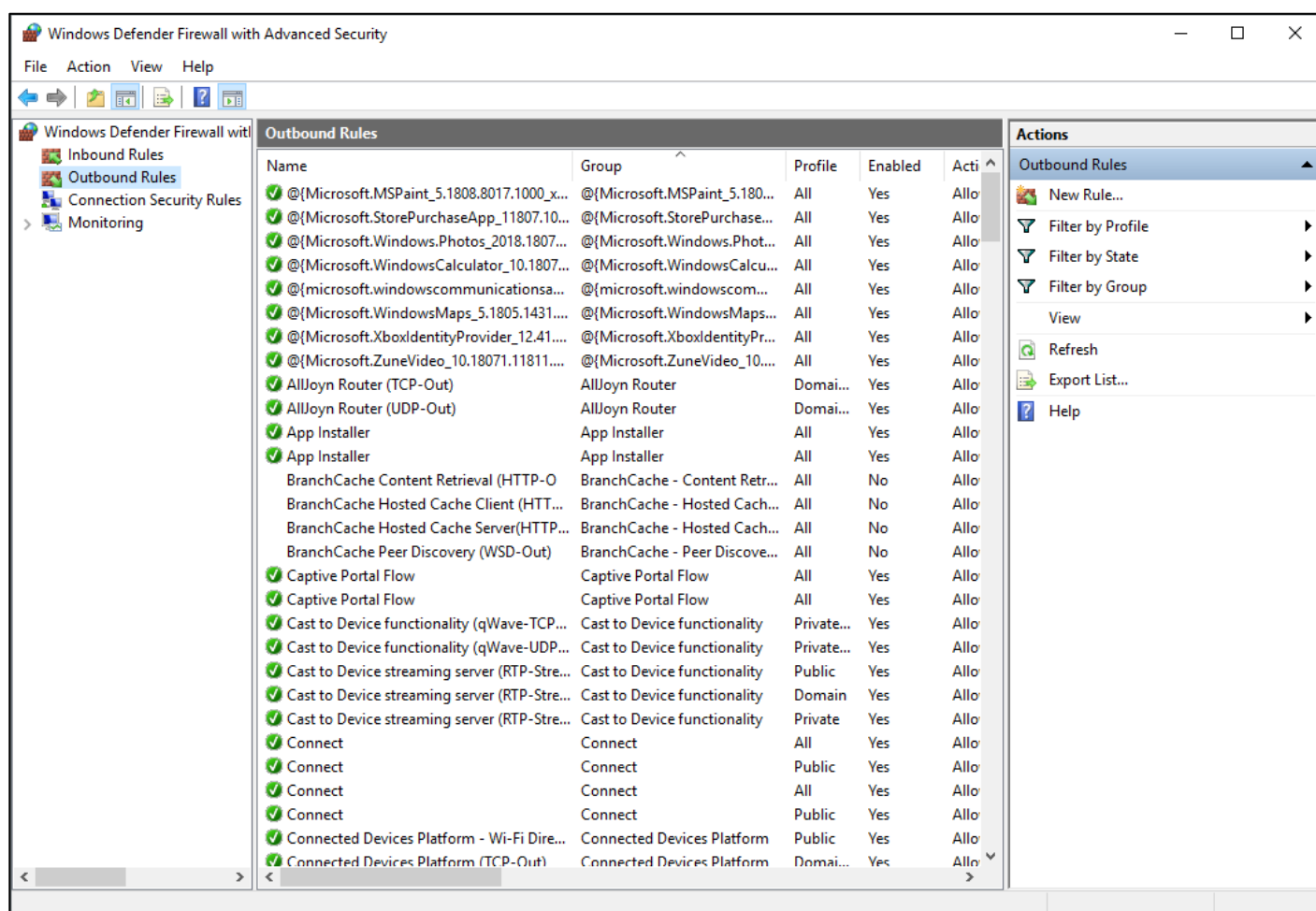
**Allow the connection if it is secure: This includes only connections that have been authenticated by using IPsec. Connections will be secured using the settings in IPsec properties and rules in the Connection Security Rule node. Block the connection**

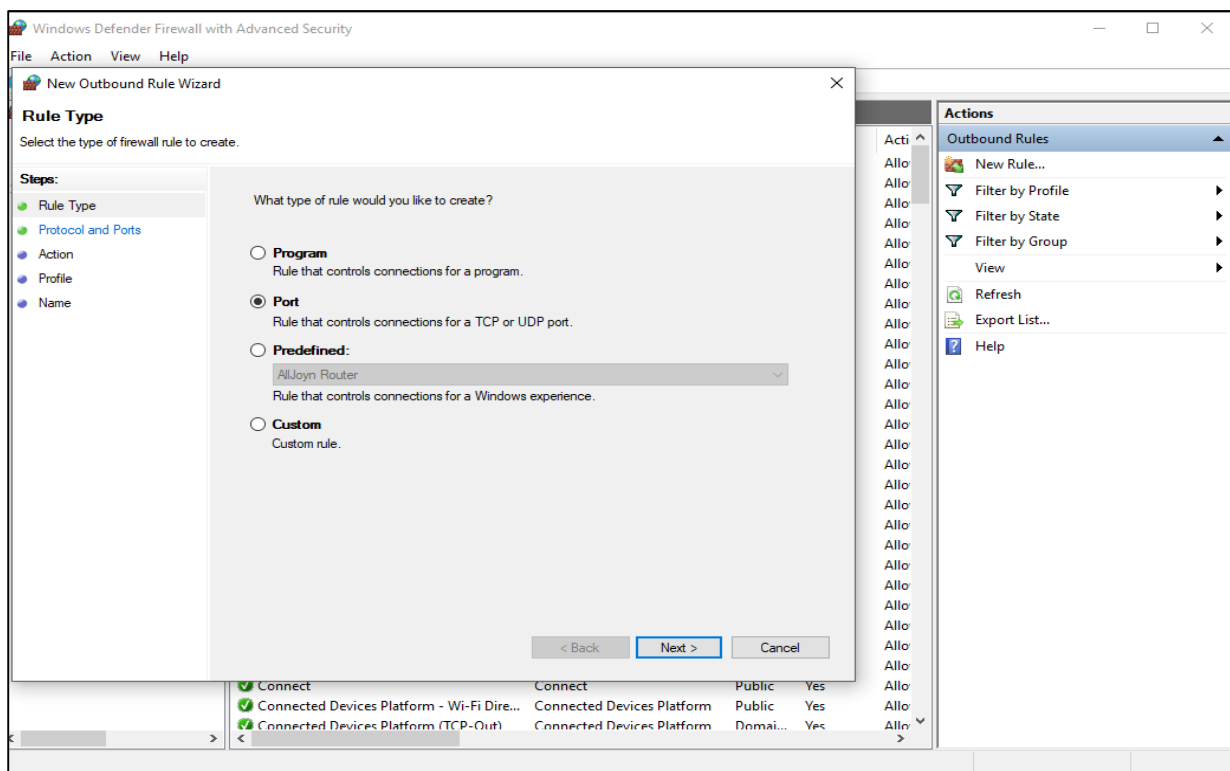
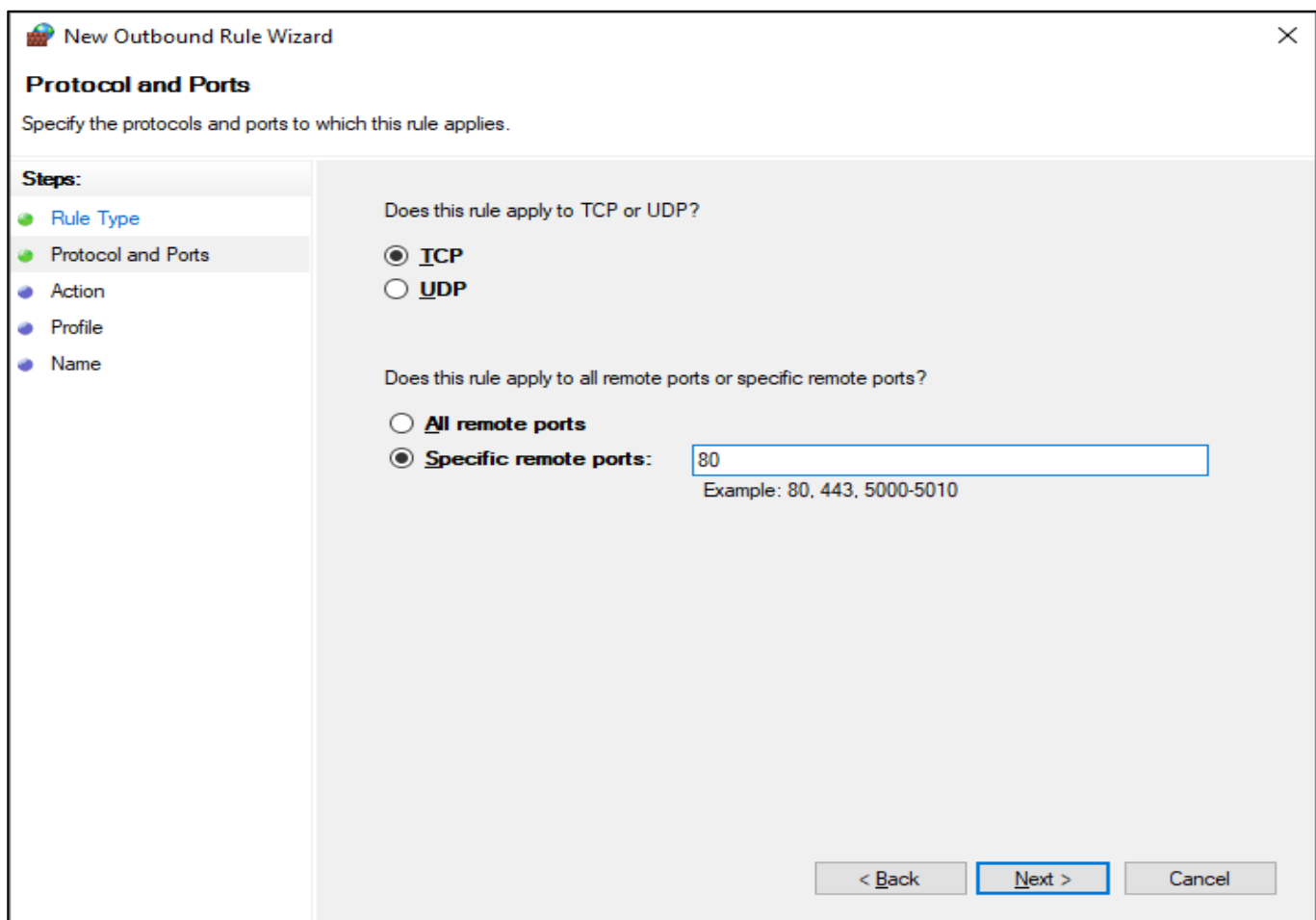
**A) Blocking a port:****Step 1: Open control panel and go to System Security.****Step 2: Now Select Windows Defender Firewall.**

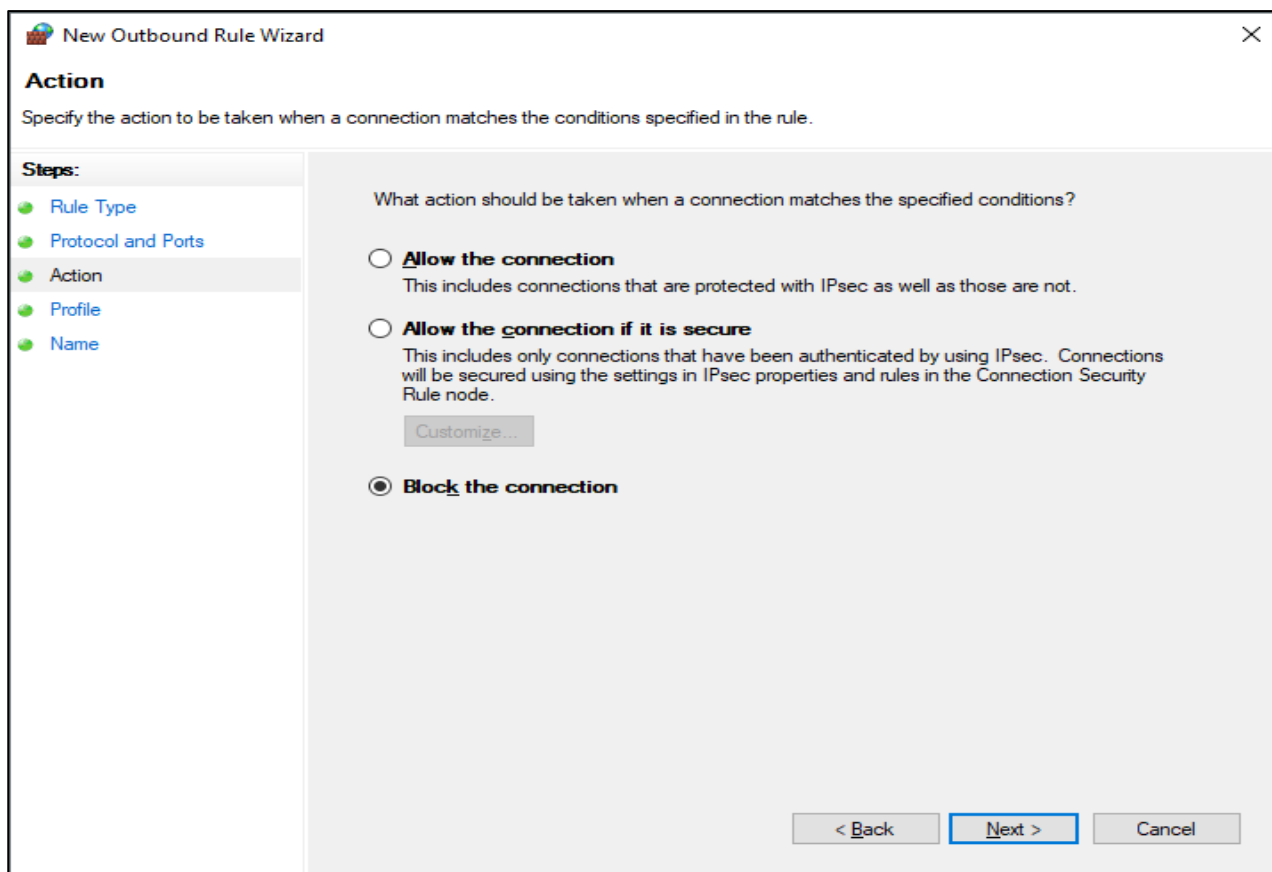
### Step 3: Now you need to select Advanced setting.



### Step 4: Now Select Outbound Rules.



**Step 5: Inside Outbound rules -> Select New Rules -> select Port and then click on next.****Step 6: Select the protocols and enter the port that you want to want to block**

**Step 7: Select the action block the connection for blocking a port**

The screenshot shows the 'New Outbound Rule Wizard' window at the 'Action' step. The left sidebar lists the steps: Rule Type, Protocol and Ports, Action (selected), Profile, and Name. The main area asks 'What action should be taken when a connection matches the specified conditions?'. There are three radio button options: 'Allow the connection' (with a 'Customize...' button), 'Allow the connection if it is secure', and 'Block the connection' (which is selected). At the bottom are '< Back', 'Next >', and 'Cancel' buttons.

**Action**

Specify the action to be taken when a connection matches the conditions specified in the rule.

**Steps:**

- Rule Type
- Protocol and Ports
- Action**
- Profile
- Name

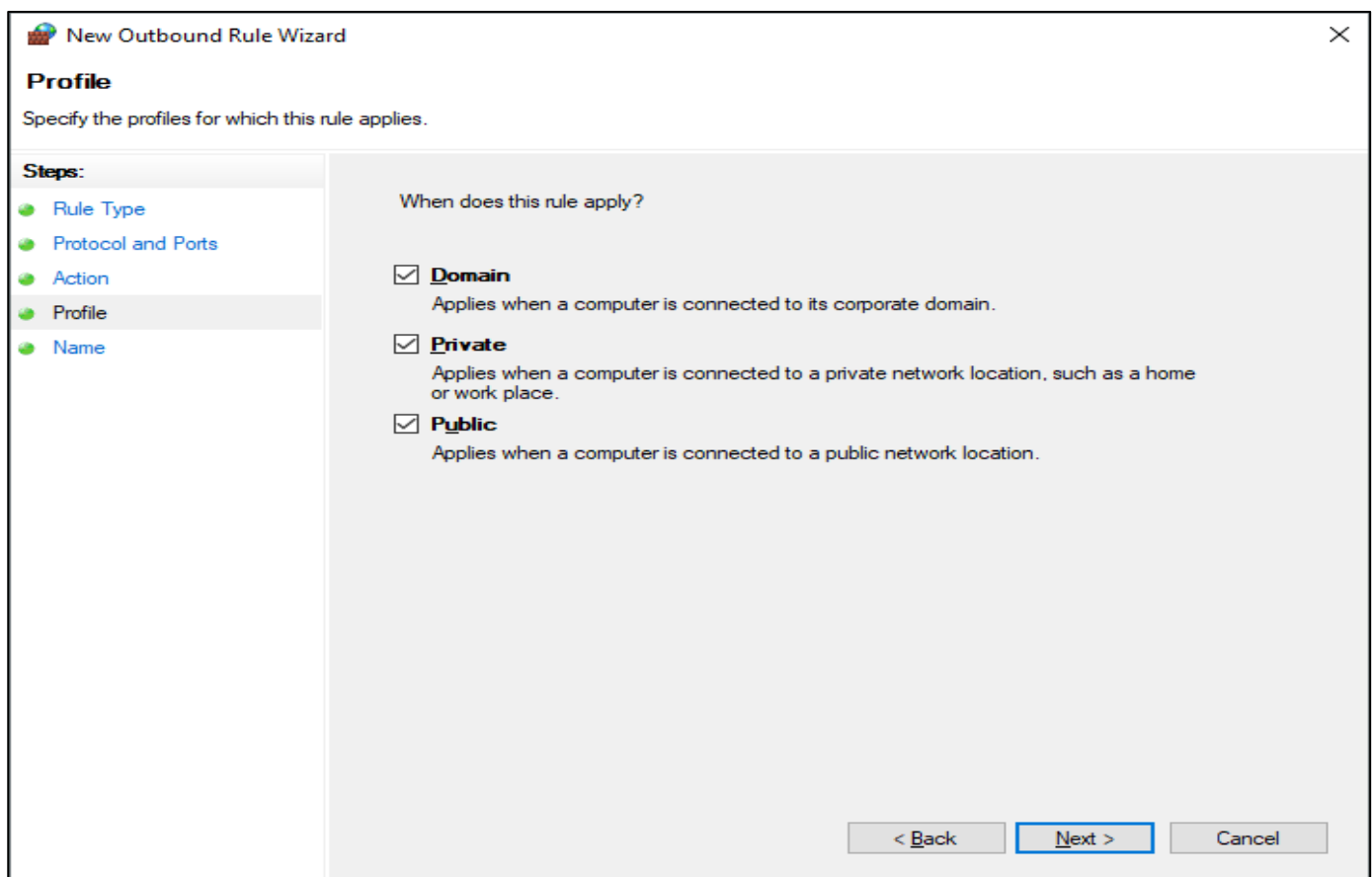
What action should be taken when a connection matches the specified conditions?

☐ **Allow the connection**  
This includes connections that are protected with IPsec as well as those are not.

☐ **Allow the connection if it is secure**  
This includes only connections that have been authenticated by using IPsec. Connections will be secured using the settings in IPsec properties and rules in the Connection Security Rule node.

☒ **Block the connection**

< Back   Next >   Cancel

**Step 8: Select the profiles domain private or public**

The screenshot shows the 'New Outbound Rule Wizard' window at the 'Profile' step. The left sidebar lists the steps: Rule Type, Protocol and Ports, Action, Profile (selected), and Name. The main area asks 'When does this rule apply?'. There are three checked checkbox options: 'Domain', 'Private', and 'Public'. At the bottom are '< Back', 'Next >', and 'Cancel' buttons.

**Profile**

Specify the profiles for which this rule applies.

**Steps:**

- Rule Type
- Protocol and Ports
- Action
- Profile**
- Name

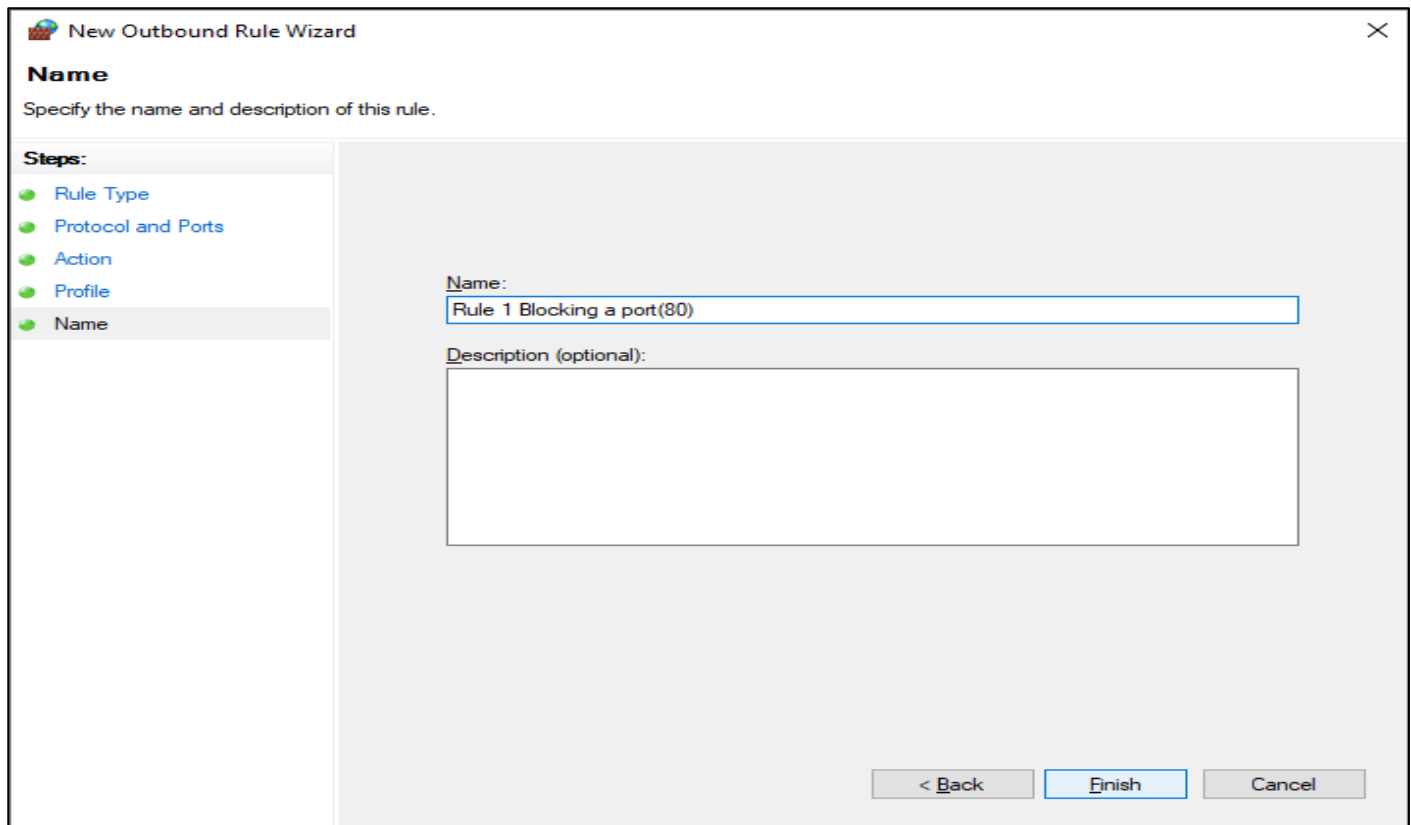
When does this rule apply?

☒ **Domain**  
Applies when a computer is connected to its corporate domain.

☒ **Private**  
Applies when a computer is connected to a private network location, such as a home or work place.

☒ **Public**  
Applies when a computer is connected to a public network location.

< Back   Next >   Cancel

**Step 9: Give a name to our new set rule and click on finish**


**New Outbound Rule Wizard**

**Name**  
Specify the name and description of this rule.

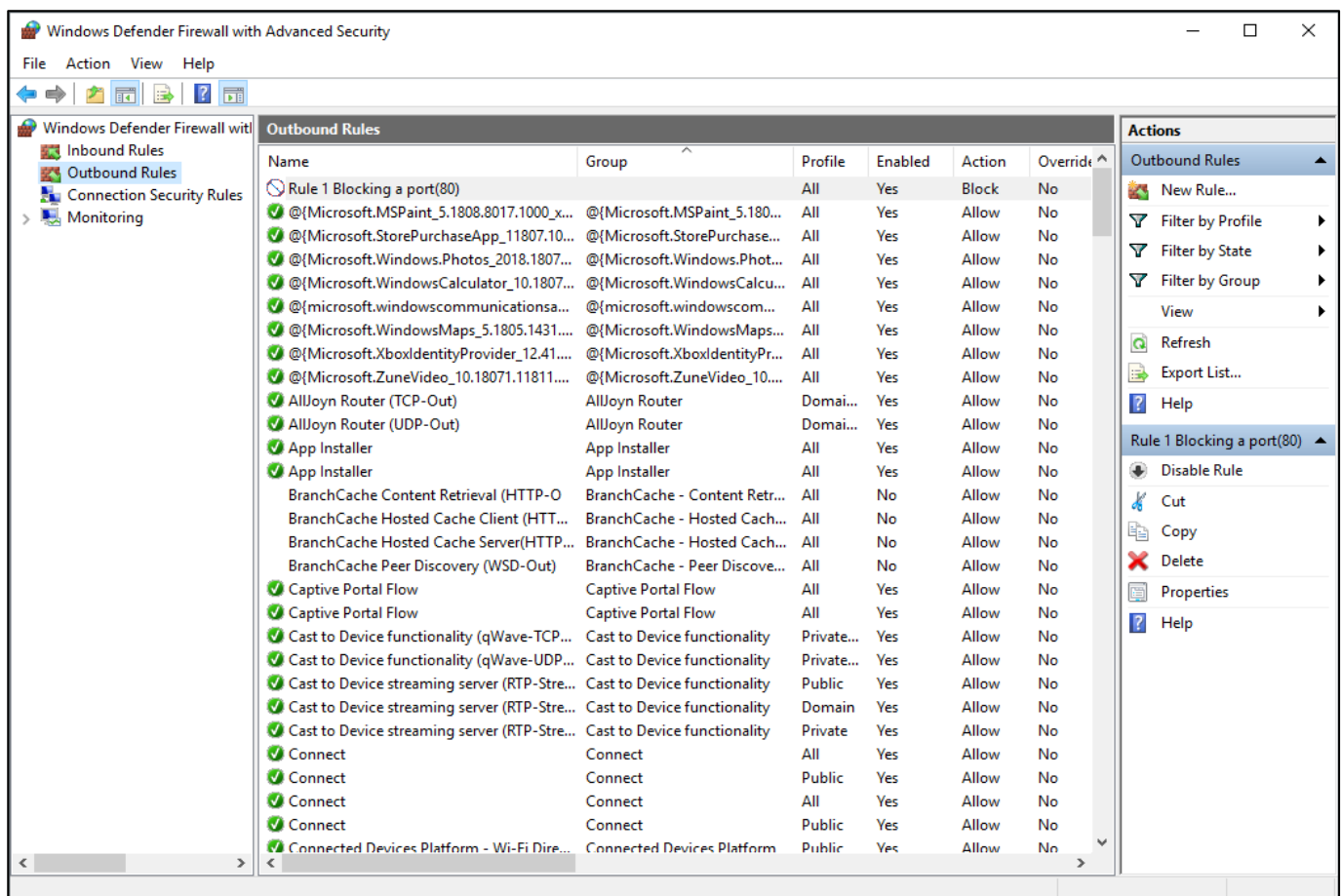
**Steps:**

- Rule Type
- Protocol and Ports
- Action
- Profile
- Name**

**Name:**  
Rule 1 Blocking a port(80)

**Description (optional):**

< Back Finish Cancel

**Output:**


Windows Defender Firewall with Advanced Security

File Action View Help

Windows Defender Firewall with Advanced Security

- Inbound Rules
- Outbound Rules**
- Connection Security Rules
- Monitoring

Name	Group	Profile	Enabled	Action	Override
Rule 1 Blocking a port(80)		All	Yes	Block	No
@{Microsoft.MSPaint_5.1808.8017.1000_x...	@{Microsoft.MSPaint_5.180...	All	Yes	Allow	No
@{Microsoft.StorePurchaseApp_11807.10...	@{Microsoft.StorePurchase...	All	Yes	Allow	No
@{Microsoft.Windows.Photos_2018.1807...	@{Microsoft.Windows.Phot...	All	Yes	Allow	No
@{Microsoft.WindowsCalculator_10.1807...	@{Microsoft.WindowsCalcu...	All	Yes	Allow	No
@{microsoft.windowscommunicationsa...	@{microsoft.windowscom...	All	Yes	Allow	No
@{Microsoft.WindowsMaps_5.1805.1431...	@{Microsoft.WindowsMaps...	All	Yes	Allow	No
@{Microsoft.XboxIdentityProvider_12.41...	@{Microsoft.XboxIdentityPr...	All	Yes	Allow	No
@{Microsoft.ZuneVideo_10.18071.11811...	@{Microsoft.ZuneVideo_10...	All	Yes	Allow	No
AllJoyn Router (TCP-Out)	AllJoyn Router	Domai...	Yes	Allow	No
AllJoyn Router (UDP-Out)	AllJoyn Router	Domai...	Yes	Allow	No
App Installer	App Installer	All	Yes	Allow	No
App Installer	App Installer	All	Yes	Allow	No
BranchCache Content Retrieval (HTTP-O...	BranchCache - Content Retr...	All	No	Allow	No
BranchCache Hosted Cache Client (HTT...	BranchCache - Hosted Cach...	All	No	Allow	No
BranchCache Hosted Cache Server(HTTP...	BranchCache - Hosted Cach...	All	No	Allow	No
BranchCache Peer Discovery (WSD-Out)	BranchCache - Peer Discove...	All	No	Allow	No
Captive Portal Flow	Captive Portal Flow	All	Yes	Allow	No
Captive Portal Flow	Captive Portal Flow	All	Yes	Allow	No
Cast to Device functionality (qWave-TCP...	Cast to Device functionality	Private...	Yes	Allow	No
Cast to Device functionality (qWave-UDP...	Cast to Device functionality	Private...	Yes	Allow	No
Cast to Device streaming server (RTP-Stre...	Cast to Device functionality	Public	Yes	Allow	No
Cast to Device streaming server (RTP-Stre...	Cast to Device functionality	Domain	Yes	Allow	No
Cast to Device streaming server (RTP-Stre...	Cast to Device functionality	Private	Yes	Allow	No
Connect	Connect	All	Yes	Allow	No
Connect	Connect	Public	Yes	Allow	No
Connect	Connect	All	Yes	Allow	No
Connect	Connect	Public	Yes	Allow	No
Connected Devices Platform - Wi-Fi Dire...	Connected Devices Platform	Public	Yes	Allow	Nn

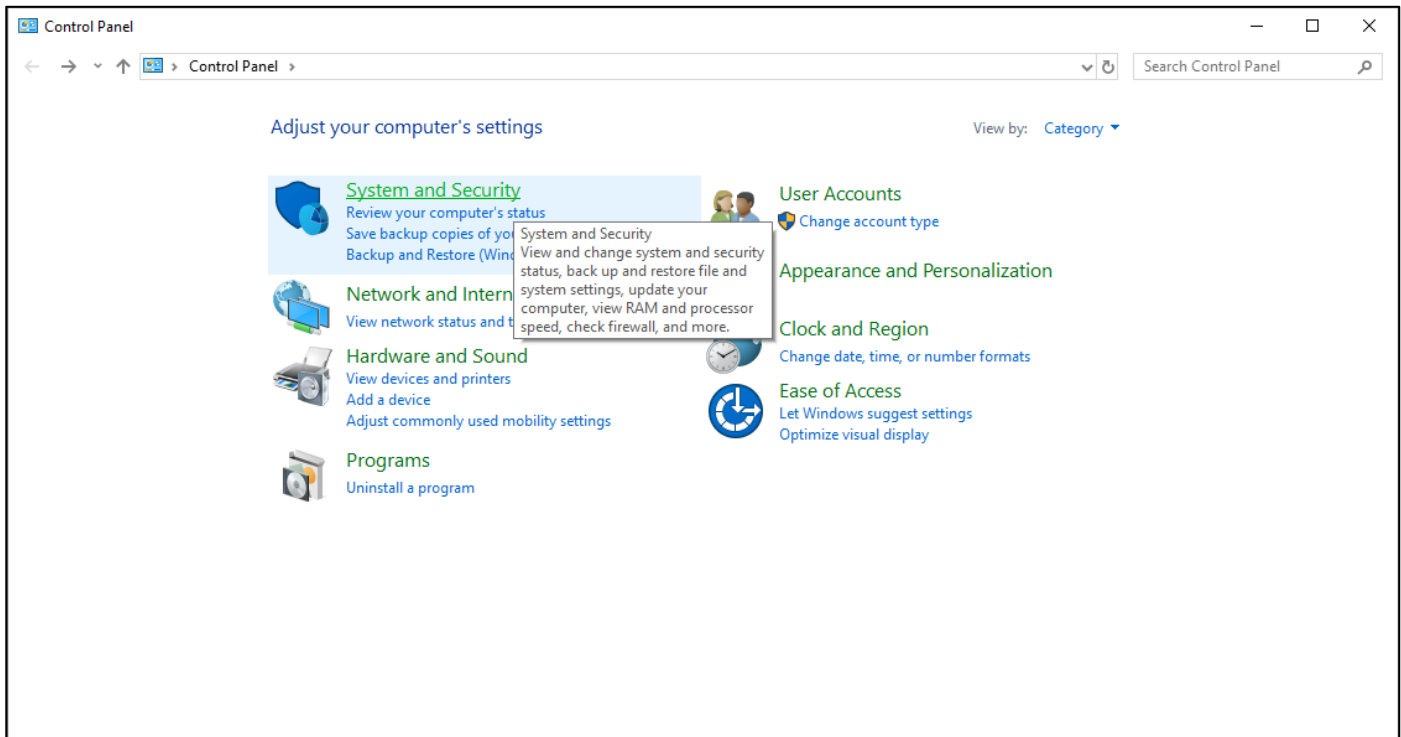
**Actions**

- Outbound Rules
  - New Rule...
  - Filter by Profile
  - Filter by State
  - Filter by Group
  - View
  - Refresh
  - Export List...
  - Help
- Rule 1 Blocking a port(80)
  - Disable Rule
  - Cut
  - Copy
  - Delete
  - Properties
  - Help

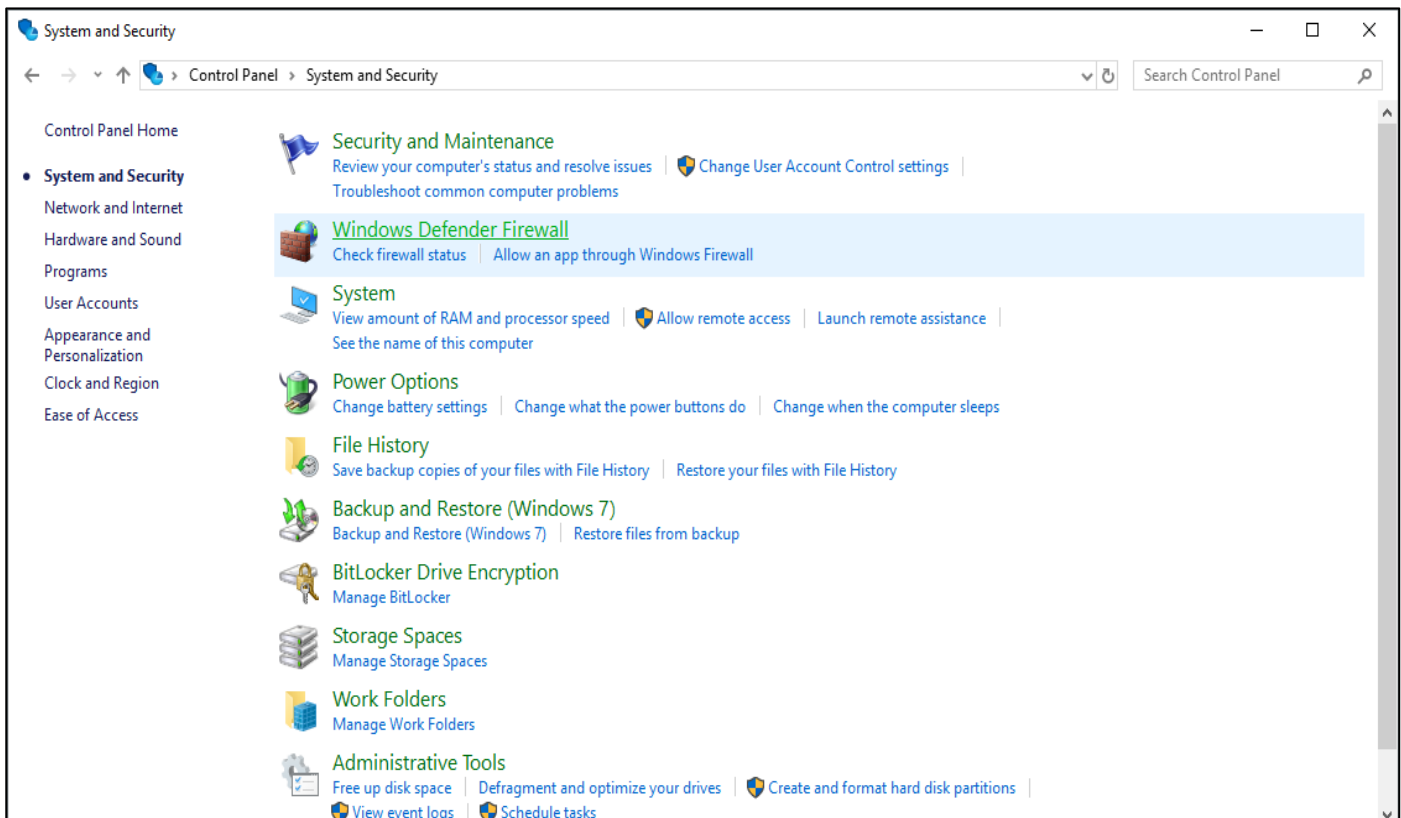
## B) Blocking a program:

### Rule that controls the connection of a program

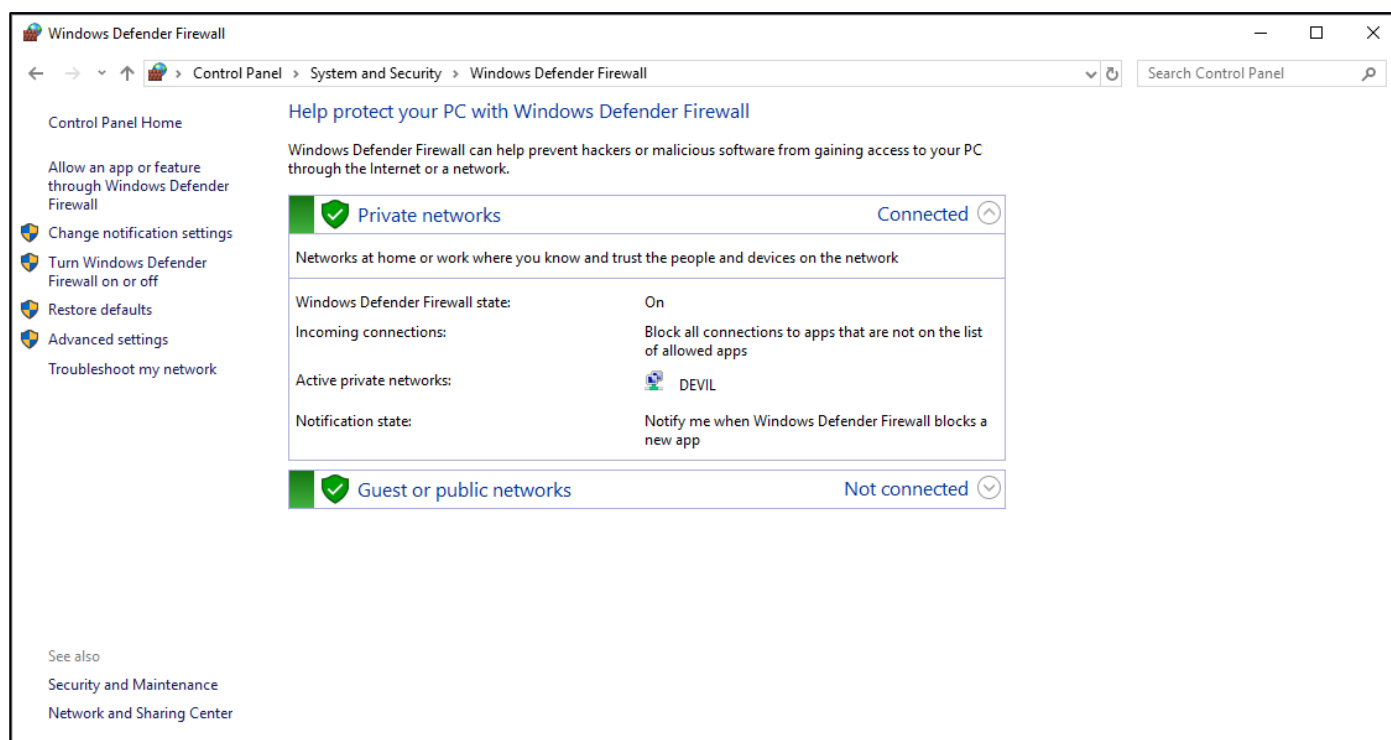
#### Step 1: Open control panel and go to System Security.



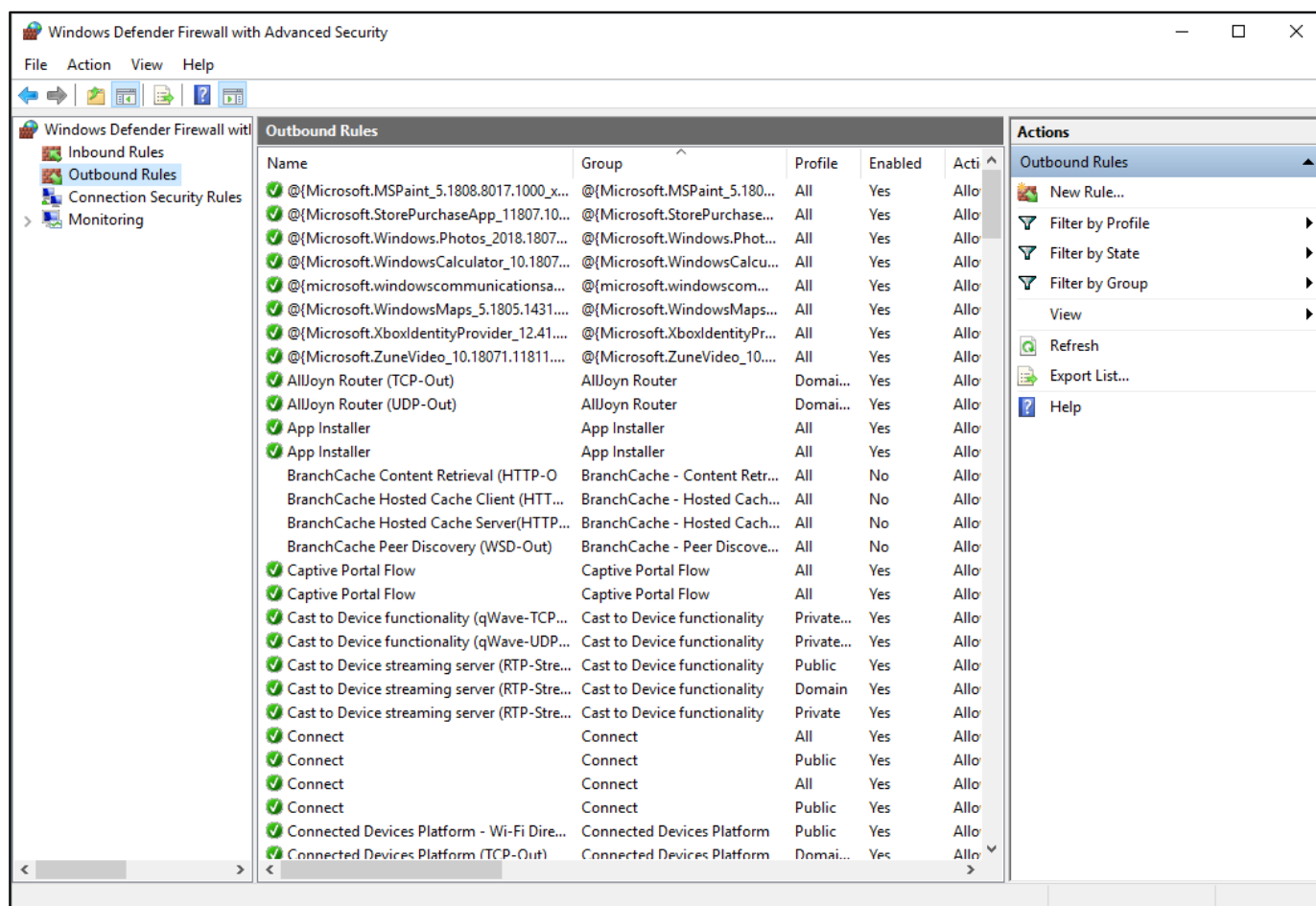
#### Step 2: Now Select Windows Defender Firewall.



### Step 3: Now you need to select Advanced setting.



### Step 4: Now Select Outbound Rules.





**Step 5: Inside Outbound rules -> Select New Rules -> select a program and then click on next.**

New Outbound Rule Wizard

**Rule Type**

Select the type of firewall rule to create.

**Steps:**

- Rule Type
- Program
- Action
- Profile
- Name

What type of rule would you like to create?

☒ **Program**  
Rule that controls connections for a program.

☐ **Port**  
Rule that controls connections for a TCP or UDP port.

☐ **Predefined:**  
AllJoyn Router  
Rule that controls connections for a Windows experience.

☐ **Custom**  
Custom rule.

< Back   Next >   Cancel

**Step 6: Choose the path of the program from the directory**

New Outbound Rule Wizard

**Program**

Specify the full program path and executable name of the program that this rule matches.

**Steps:**

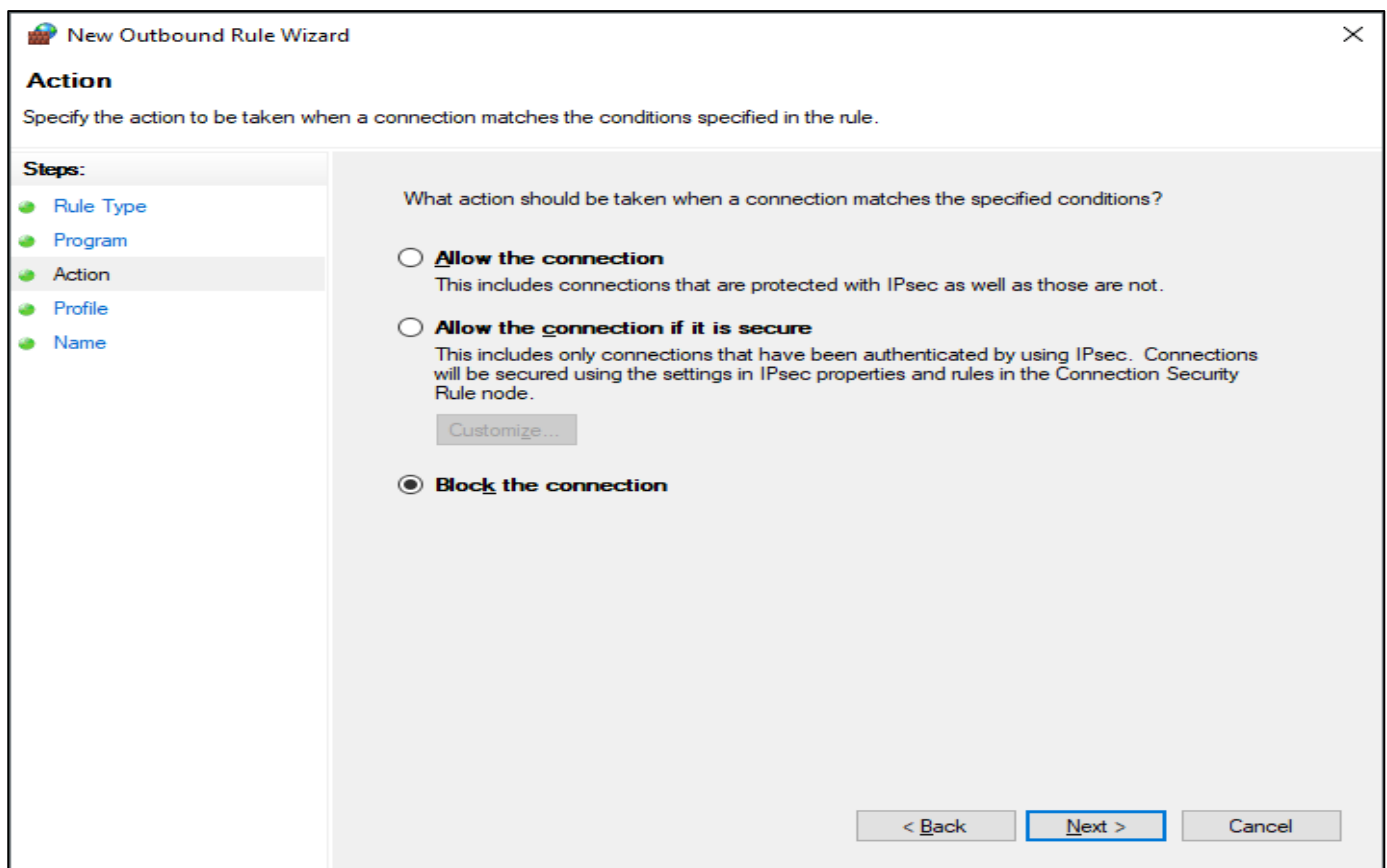
- Rule Type
- Program
- Action
- Profile
- Name

Does this rule apply to all programs or a specific program?

☐ **All programs**  
Rule applies to all connections on the computer that match other rule properties.

☒ **This program path:**  
%ProgramFiles%\Mozilla Firefox\firefox.exe   Browse...  
Example:   c:\path\program.exe  
              %ProgramFiles%\browser\browser.exe

< Back   Next >   Cancel

**Step 7: Click on Block the connection**

**New Outbound Rule Wizard**

**Action**

Specify the action to be taken when a connection matches the conditions specified in the rule.

**Steps:**

- Rule Type
- Program
- Action**
- Profile
- Name

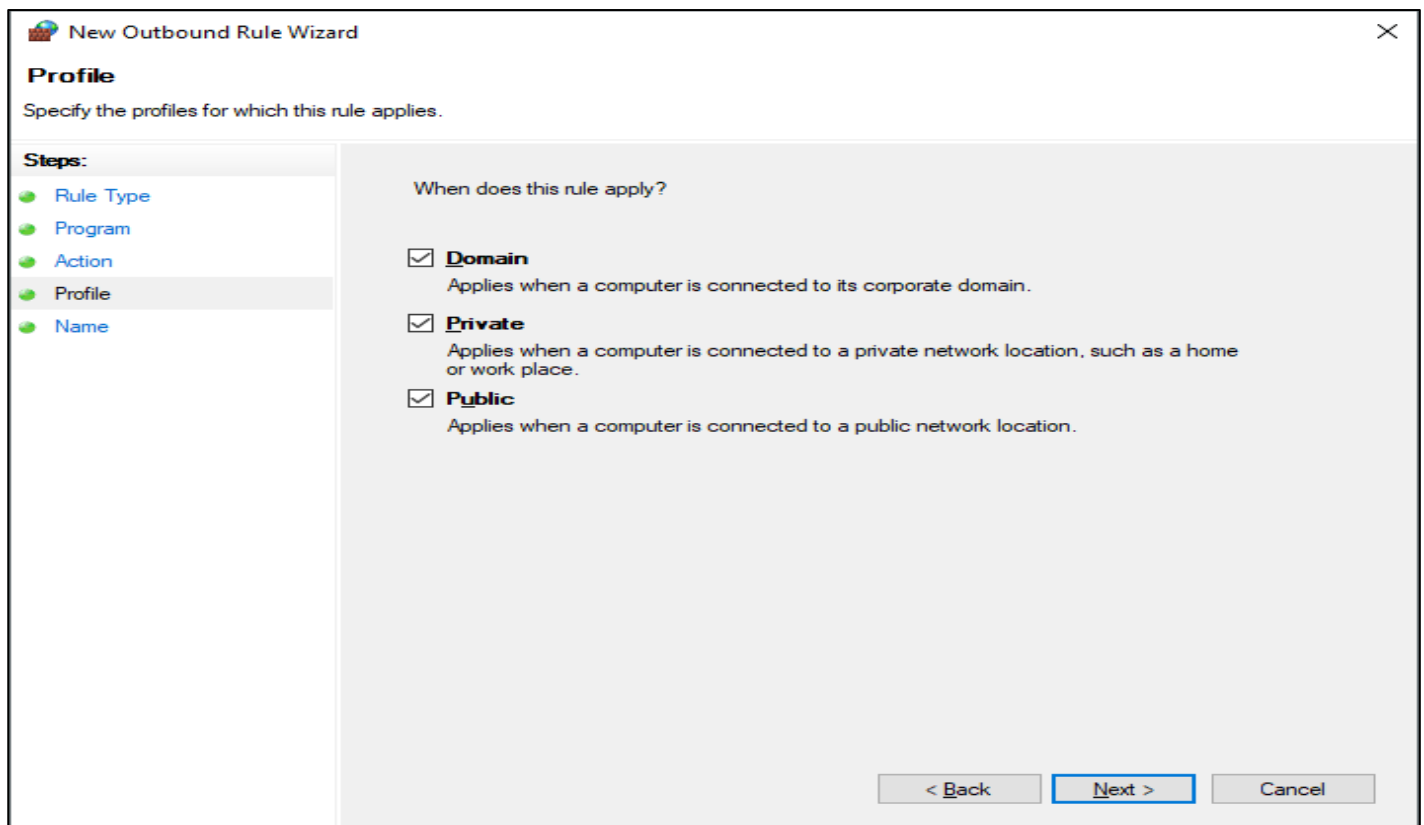
What action should be taken when a connection matches the specified conditions?

☐ **Allow the connection**  
This includes connections that are protected with IPsec as well as those are not.

☐ **Allow the connection if it is secure**  
This includes only connections that have been authenticated by using IPsec. Connections will be secured using the settings in IPsec properties and rules in the Connection Security Rule node.  
[Customize...](#)

☒ **Block the connection**

< Back   **Next >**   Cancel

**Step 8: Select the profiles domain private or public**

**New Outbound Rule Wizard**

**Profile**

Specify the profiles for which this rule applies.

**Steps:**

- Rule Type
- Program
- Action
- Profile**
- Name

When does this rule apply?

☒ **Domain**  
Applies when a computer is connected to its corporate domain.

☒ **Private**  
Applies when a computer is connected to a private network location, such as a home or work place.

☒ **Public**  
Applies when a computer is connected to a public network location.

< Back   **Next >**   Cancel

**Step 9: Give a name to your new set rule and click on finish.**

**New Outbound Rule Wizard**

**Name**  
Specify the name and description of this rule.

**Steps:**

- Rule Type
- Program
- Action
- Profile
- Name**

**Name:**  
Rule No 2 Blocking a program(MozillaFirefox)

**Description (optional):**

< Back Finish Cancel

**Output:**

**Windows Defender Firewall with Advanced Security**

File Action View Help

Windows Defender Firewall with Advanced Security

- Inbound Rules
- Outbound Rules**
- Connection Security Rules
- Monitoring

Name	Group
Rule No 2 Blocking a program(MozillaFirefox)	@{Microsoft.MSPaint_5.1808.8017.1000_x...
Rule 1 Blocking a port(80)	@{Microsoft.StorePurchaseApp_11807.10...
@{Microsoft.Windows.Photos_2018.1807...	@{Microsoft.WindowsCalculator_10.1807...
@{microsoft.windowscommunicationsa...	@{microsoft.windowsmaps_5.1805.1431...
@{Microsoft.XboxIdentityProvider_12.41...	@{Microsoft.ZuneVideo_10.18071.11811...
AllJoyn Router (TCP-Out)	AllJoyn Router
AllJoyn Router (UDP-Out)	AllJoyn Router
App Installer	App Installer
App Installer	App Installer
BranchCache Content Retrieval (HTTP-O...	BranchCache - Content Retrieval
BranchCache Hosted Cache Client (HTT...	BranchCache - Hosted Cache Client
BranchCache Hosted Cache Server(HTTP...	BranchCache - Hosted Cache Server
BranchCache Peer Discovery (WSD-Out)	BranchCache - Peer Discovery
Captive Portal Flow	Captive Portal Flow
Captive Portal Flow	Captive Portal Flow
Cast to Device functionality (qWave-TCP...	Cast to Device functionality
Cast to Device functionality (qWave-UDP...	Cast to Device functionality
Cast to Device streaming server (RTP-Stre...	Cast to Device streaming server
Cast to Device streaming server (RTP-Stre...	Cast to Device streaming server
Cast to Device streaming server (RTP-Stre...	Cast to Device streaming server
Connect	Connect
Connect	Connect
Connect	Connect
Connect	Connect

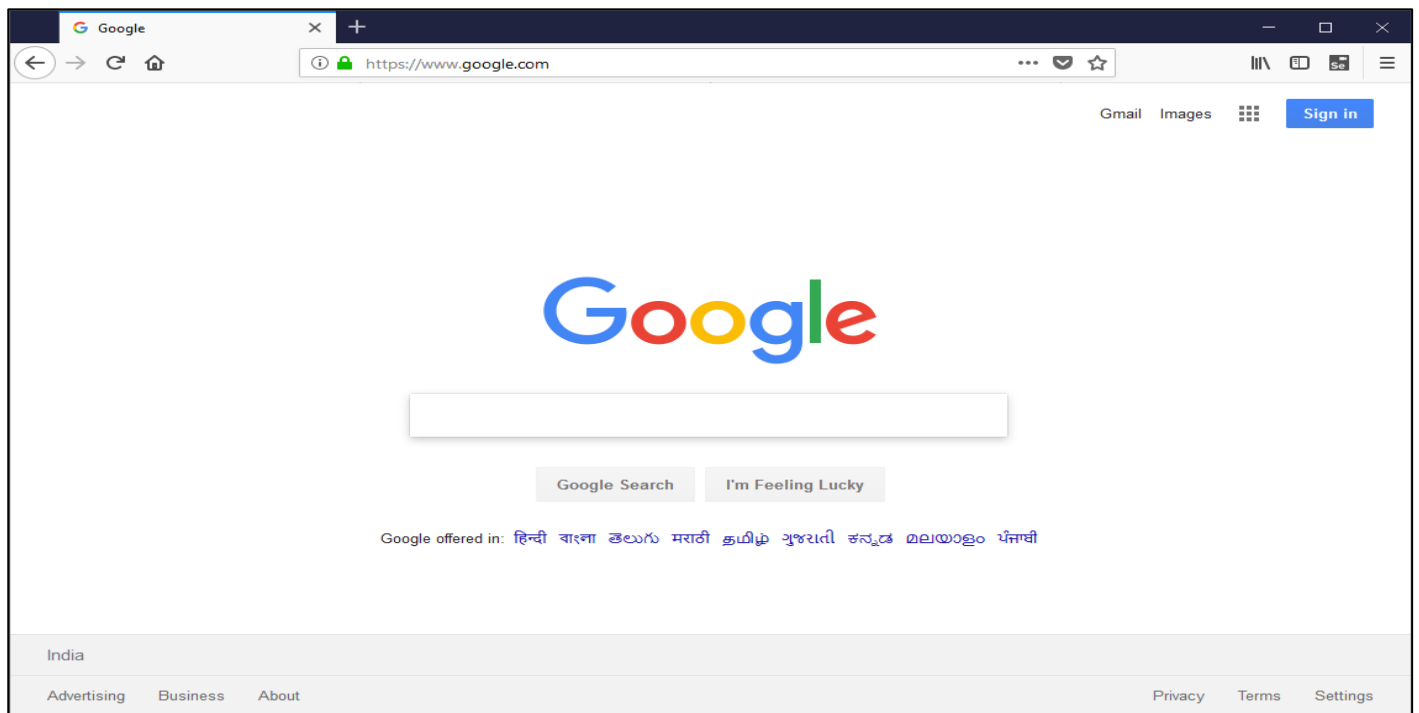
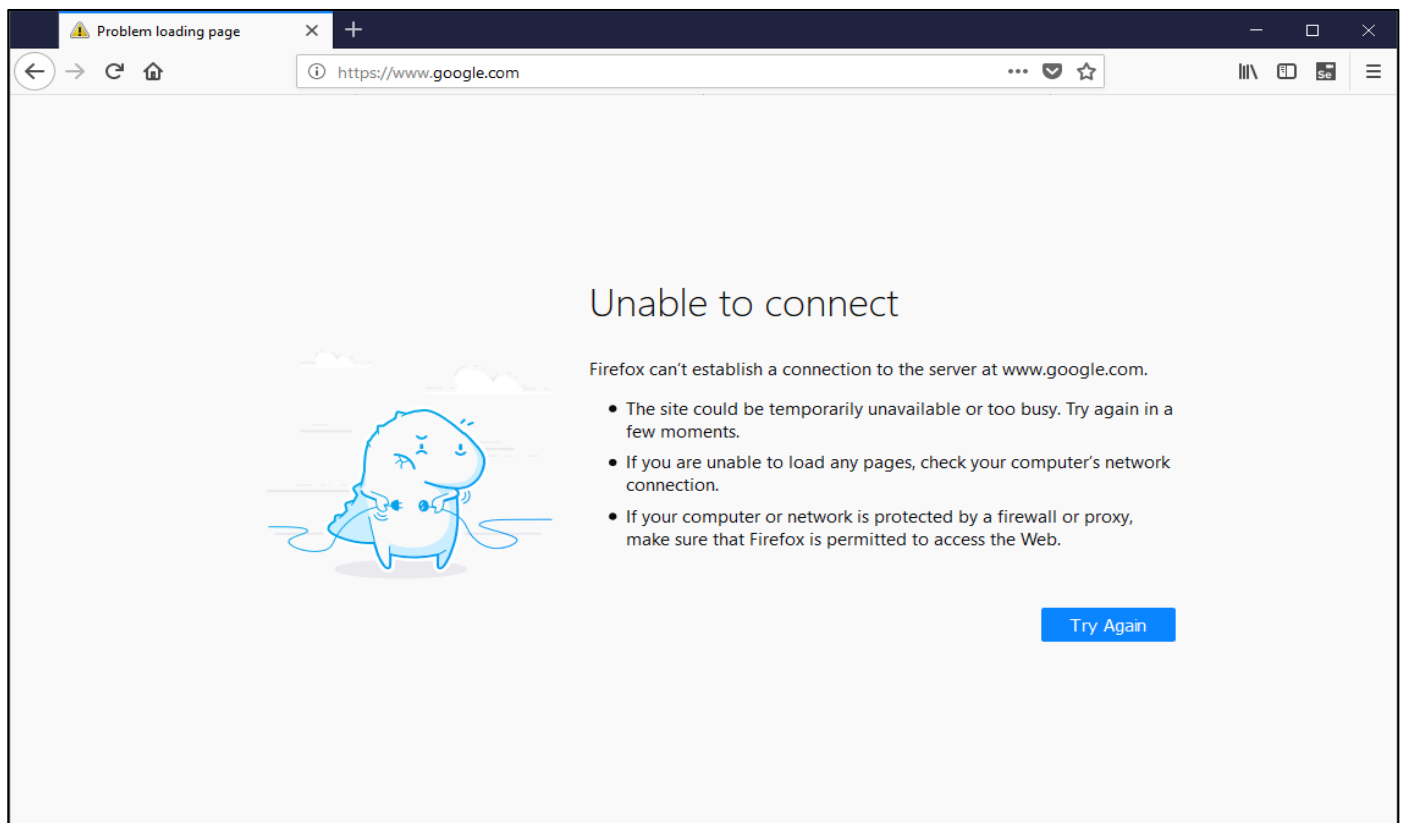
**Actions**

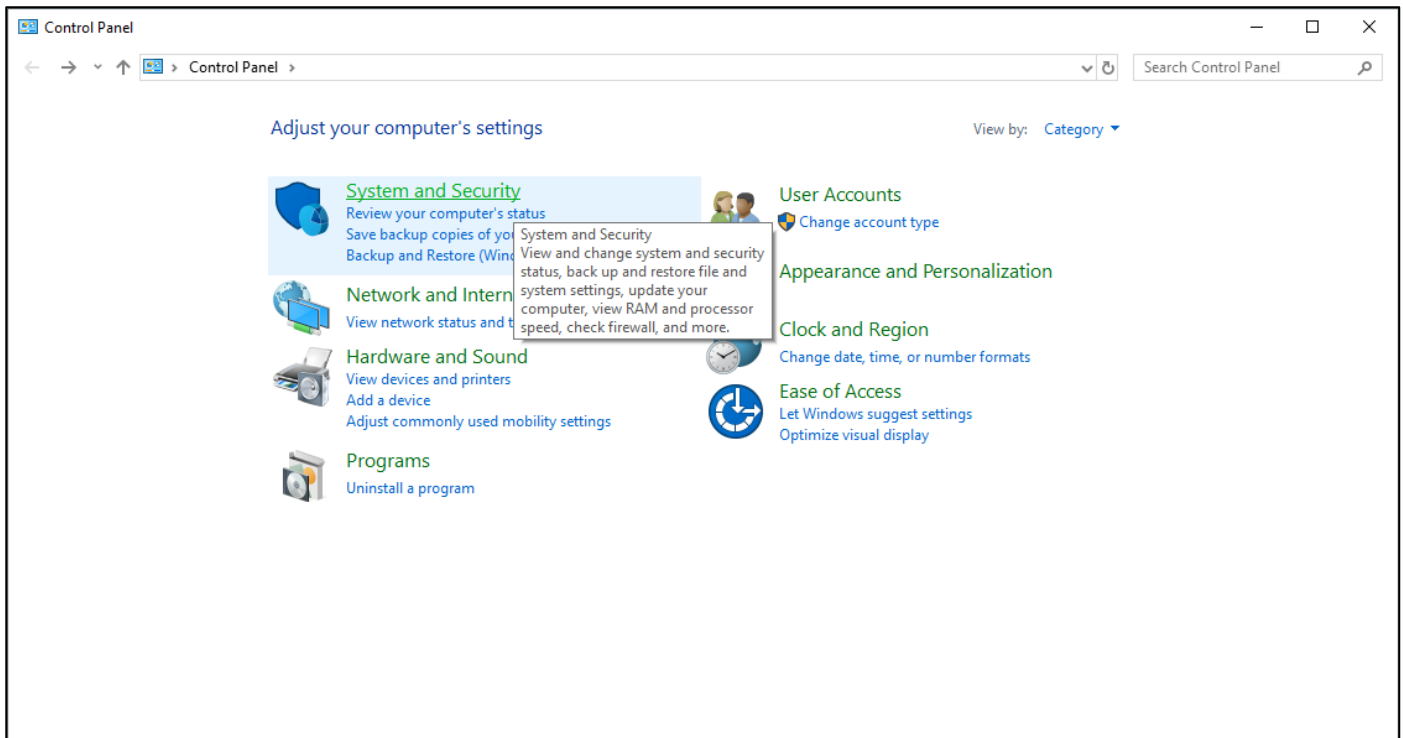
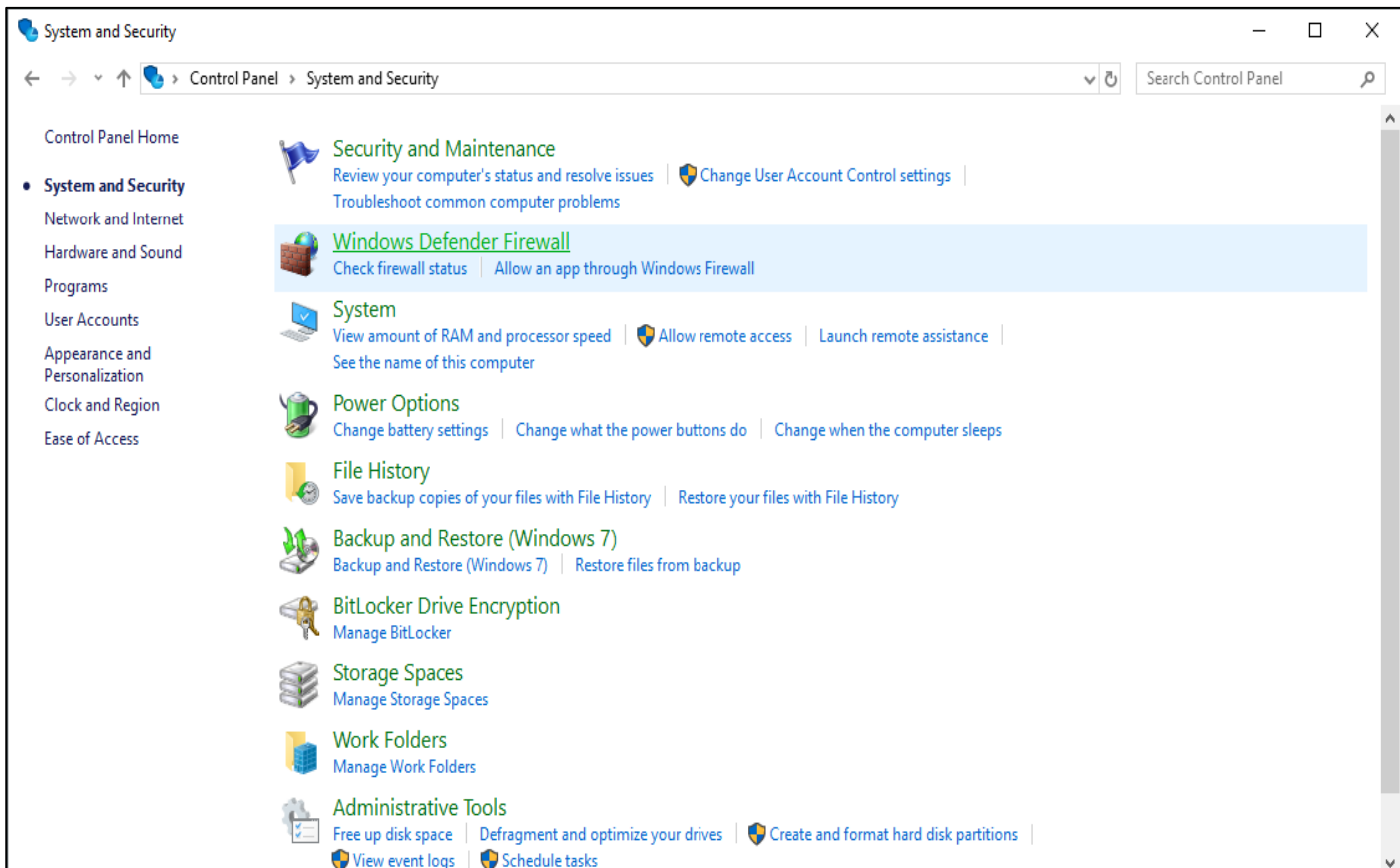
Outbound Rules

- New Rule...
- Filter by Profile
- Filter by State
- Filter by Group
- View
- Refresh
- Export List...
- Help

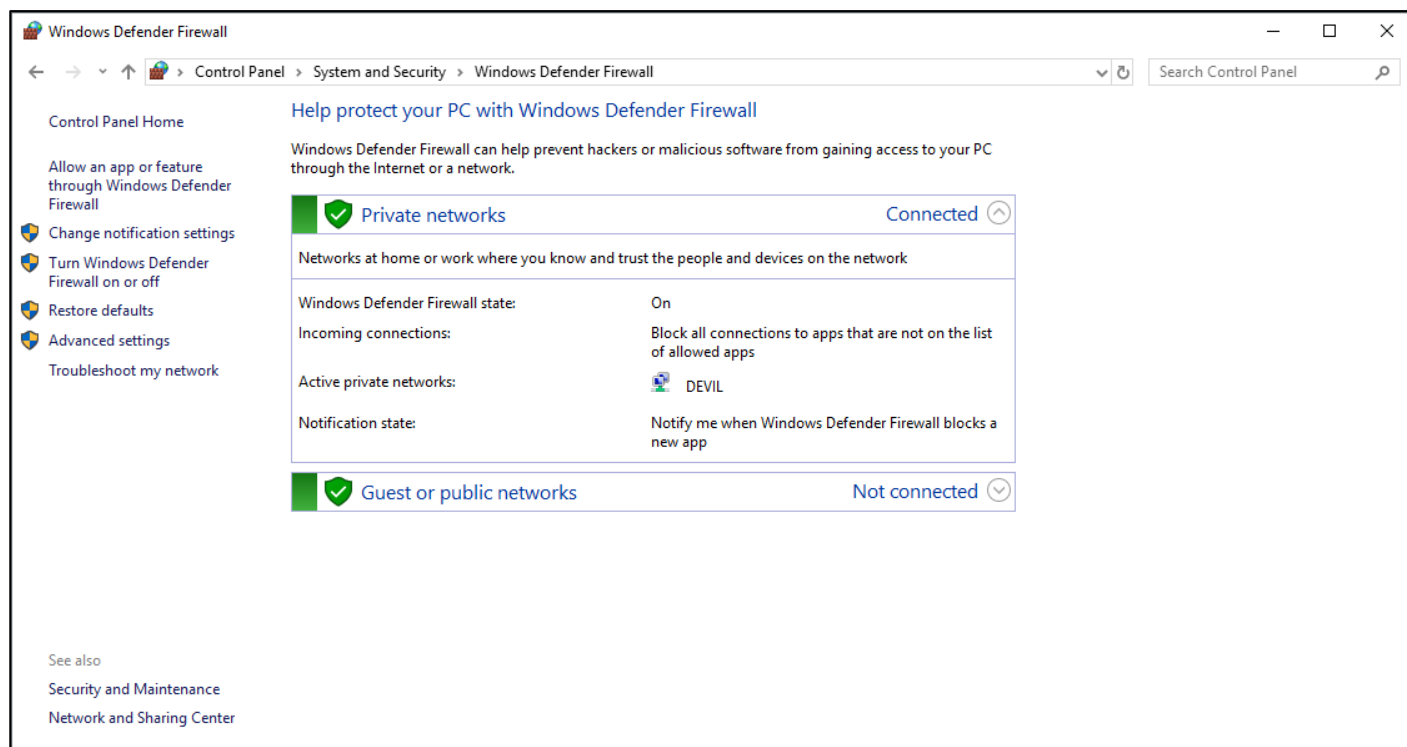
**Rule No 2 Blocking a program(MozillaFi...**

- Disable Rule
- Cut
- Copy
- Delete
- Properties
- Help

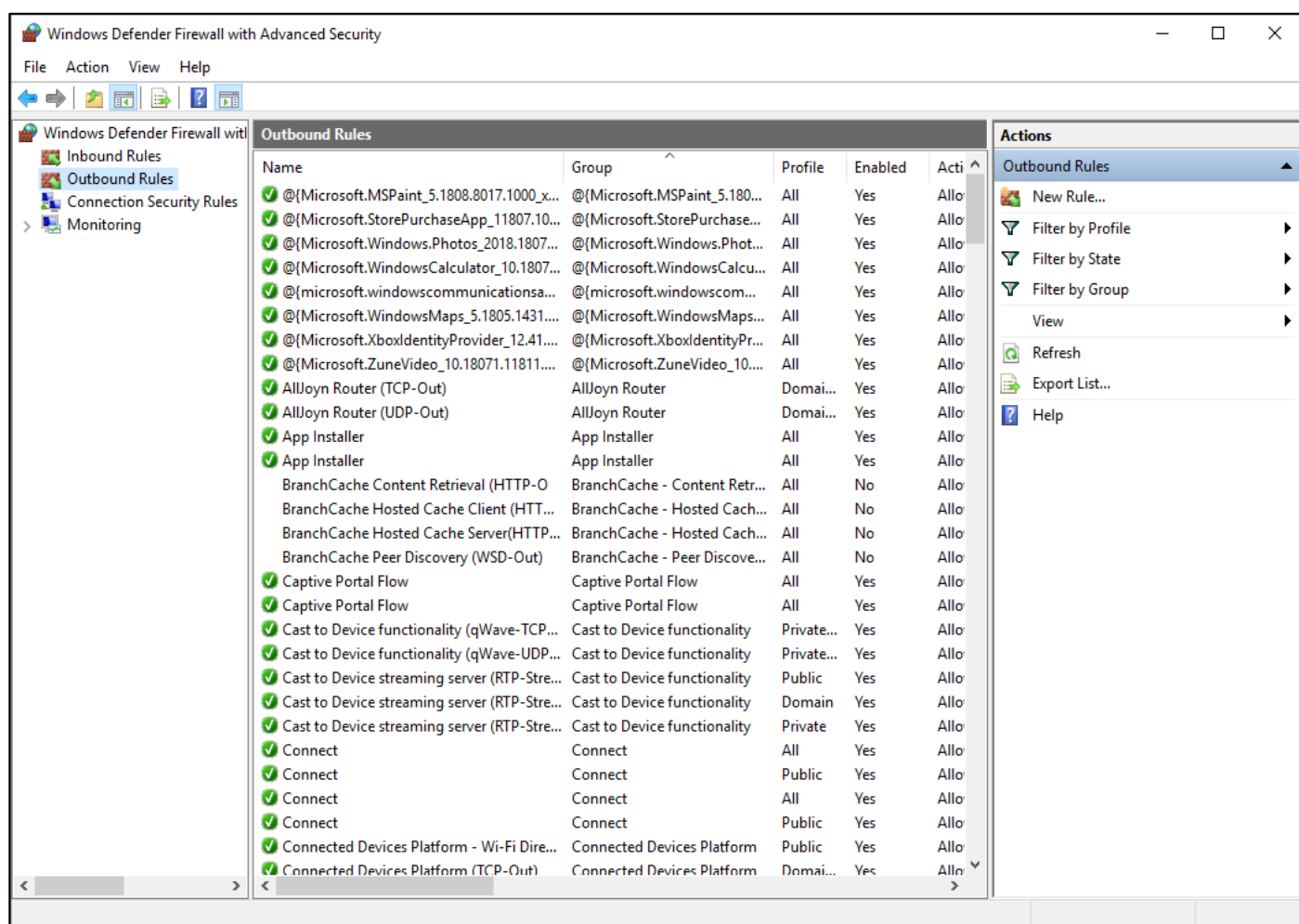
**Before Applying the Rule:****After Applying the Rule:**

**C) Blocking a website:****Step 1: Open control panel and go to System Security.****Step 2: Now Select Windows Defender Firewall.**

### Step 3: Now you need to select Advanced setting.



### Step 4: Now Select Outbound Rules.



**Step 5: Inside Outbound rules -> Select New Rules -> select custom and then click on next.**

**New Outbound Rule Wizard**

**Rule Type**

Select the type of firewall rule to create.

**Steps:**

- Rule Type
- Program
- Protocol and Ports
- Scope
- Action
- Profile
- Name

What type of rule would you like to create?

☐ **Program**  
Rule that controls connections for a program.

☐ **Port**  
Rule that controls connections for a TCP or UDP port.

☐ **Predefined:**  
AllJoyn Router  
Rule that controls connections for a Windows experience.

☒ **Custom**  
Custom rule.

< Back   Next >   Cancel

**Step 6: When you click next you would see a window where you will see “Steps:” on left hand side of the screen. From that select “Scope”.**

**New Outbound Rule Wizard**

**Scope**

Specify the local and remote IP addresses to which this rule applies.

**Steps:**

- Rule Type
- Program
- Protocol and Ports
- Scope
- Action
- Profile
- Name

**Which local IP addresses does this rule apply to?**

☒ Any IP address

☐ These IP addresses:

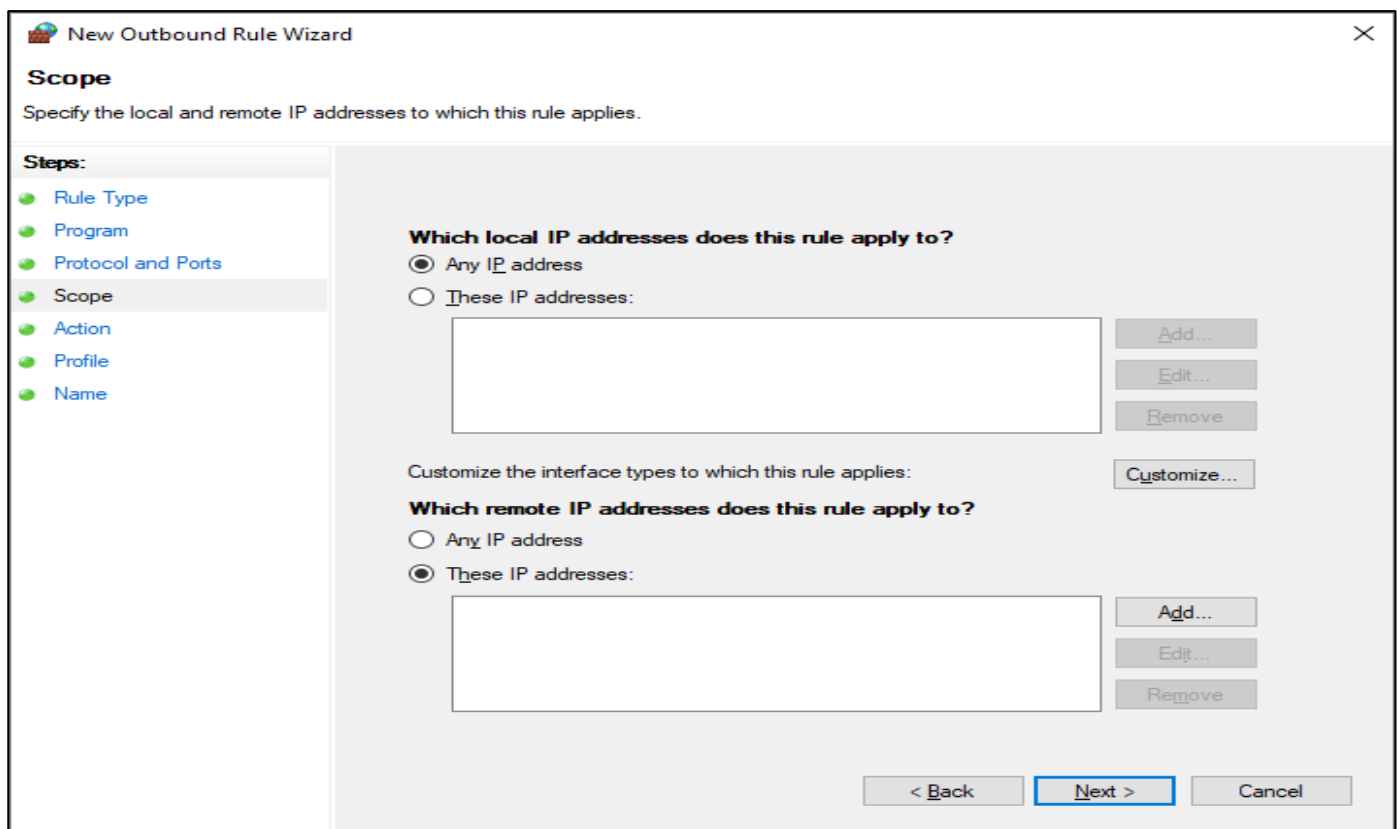
Customize the interface types to which this rule applies:

**Which remote IP addresses does this rule apply to?**

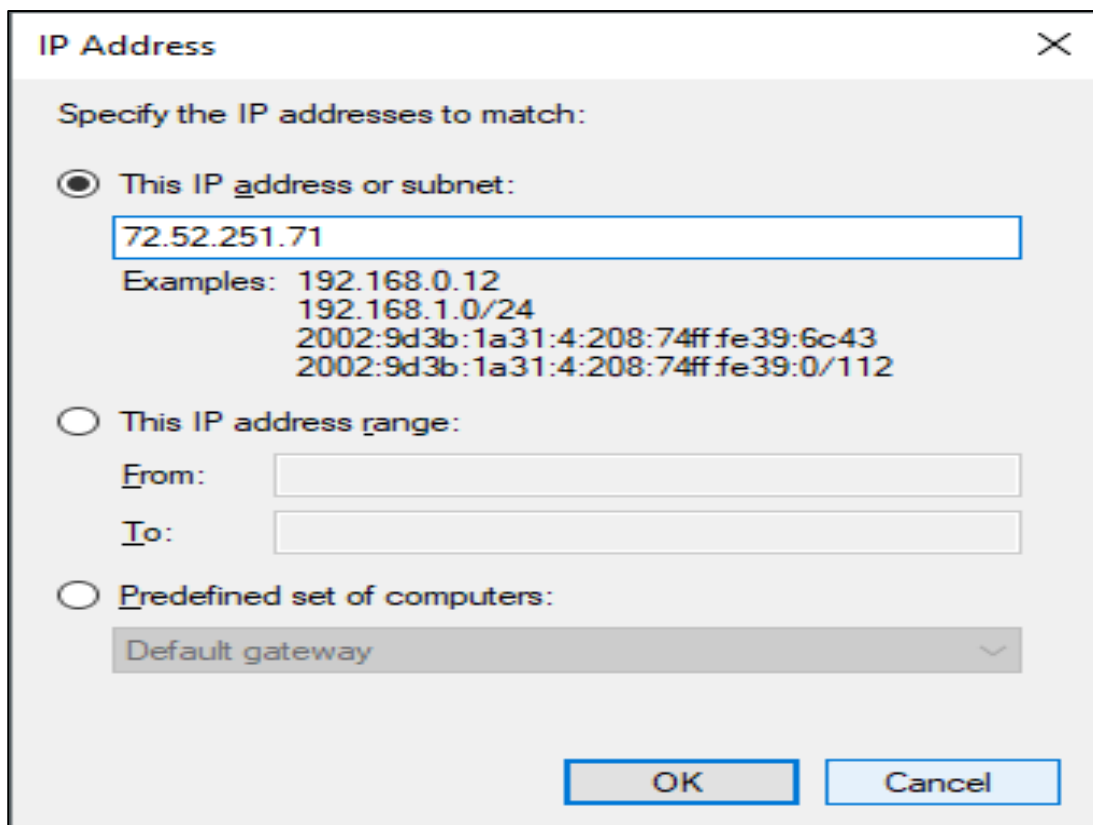
☒ Any IP address

☐ These IP addresses:

< Back   Next >   Cancel

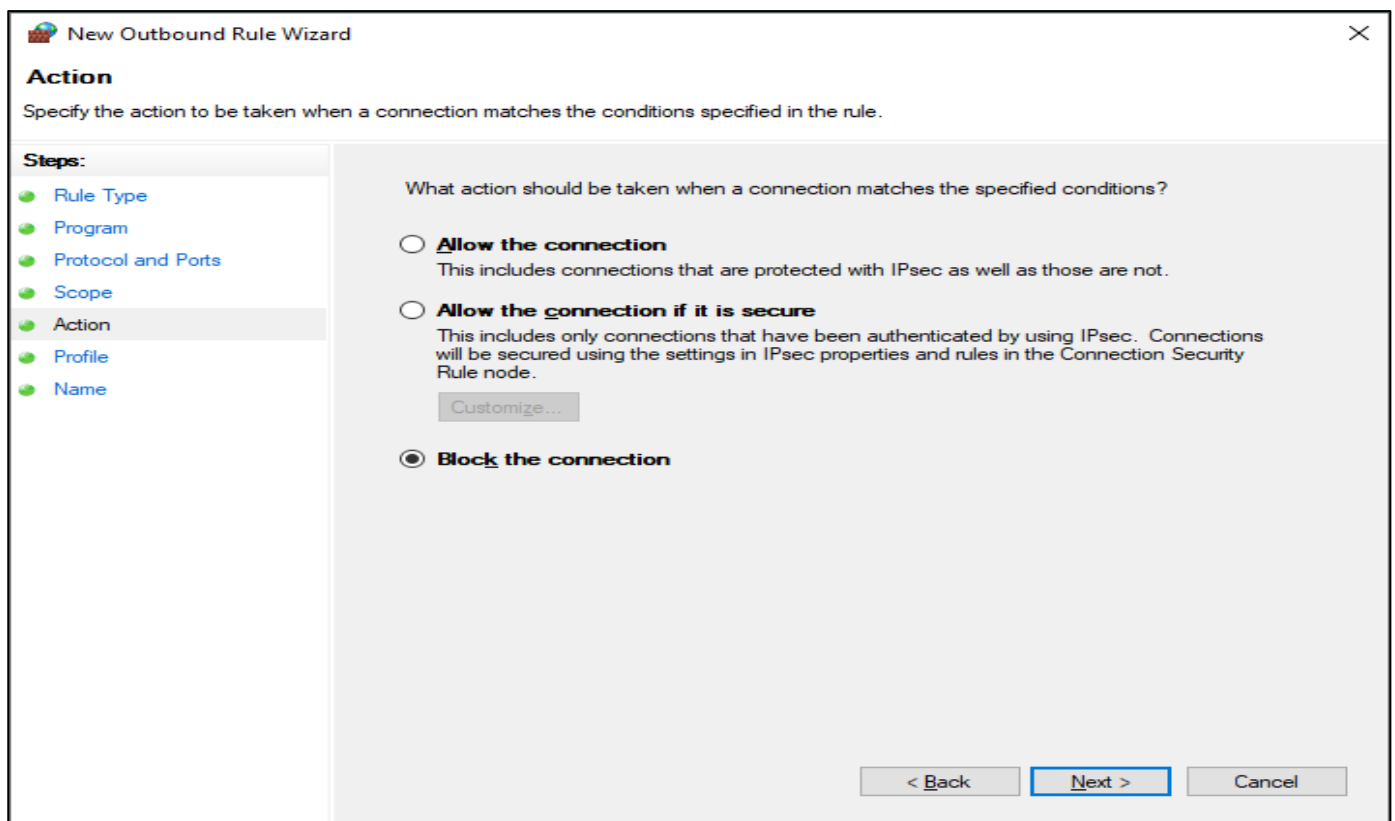
**Step 7: In scope click on These IP addresses in remote IP**

The image shows the 'New Outbound Rule Wizard' window, specifically the 'Scope' step. The left sidebar lists the steps: Rule Type, Program, Protocol and Ports, Scope (selected), Action, Profile, and Name. The main area is titled 'Specify the local and remote IP addresses to which this rule applies.' It contains two sections: 'Which local IP addresses does this rule apply to?' and 'Which remote IP addresses does this rule apply to?'. Both sections have radio buttons for 'Any IP address' and 'These IP addresses:'. The 'These IP addresses:' options are selected, and each has a text input field and buttons for 'Add...', 'Edit...', and 'Remove...'. Below these sections is a 'Customize the interface types to which this rule applies:' section with a 'Customize...' button. At the bottom are '< Back', 'Next >', and 'Cancel' buttons.

**Step 8: Click on add and Add the IP address of the website that you want to block and click ok**

The image shows the 'IP Address' dialog box. It has a title bar with a close button. The main text is 'Specify the IP addresses to match:'. There are three radio button options: 'This IP address or subnet:' (selected), 'This IP address range:', and 'Predefined set of computers:'. The 'This IP address or subnet:' option has a text input field containing '72.52.251.71'. Below this input field are examples of IP addresses and subnets: '192.168.0.12', '192.168.1.0/24', '2002:9d3b:1a31:4:208:74ff:fe39:6c43', and '2002:9d3b:1a31:4:208:74ff:fe39:0/112'. The 'This IP address range:' option has 'From:' and 'To:' labels with corresponding text input fields. The 'Predefined set of computers:' option has a dropdown menu showing 'Default gateway'. At the bottom are 'OK' and 'Cancel' buttons.



**Step 9: Click on Block the connection in action**

**New Outbound Rule Wizard**

**Action**

Specify the action to be taken when a connection matches the conditions specified in the rule.

**Steps:**

- Rule Type
- Program
- Protocol and Ports
- Scope
- Action**
- Profile
- Name

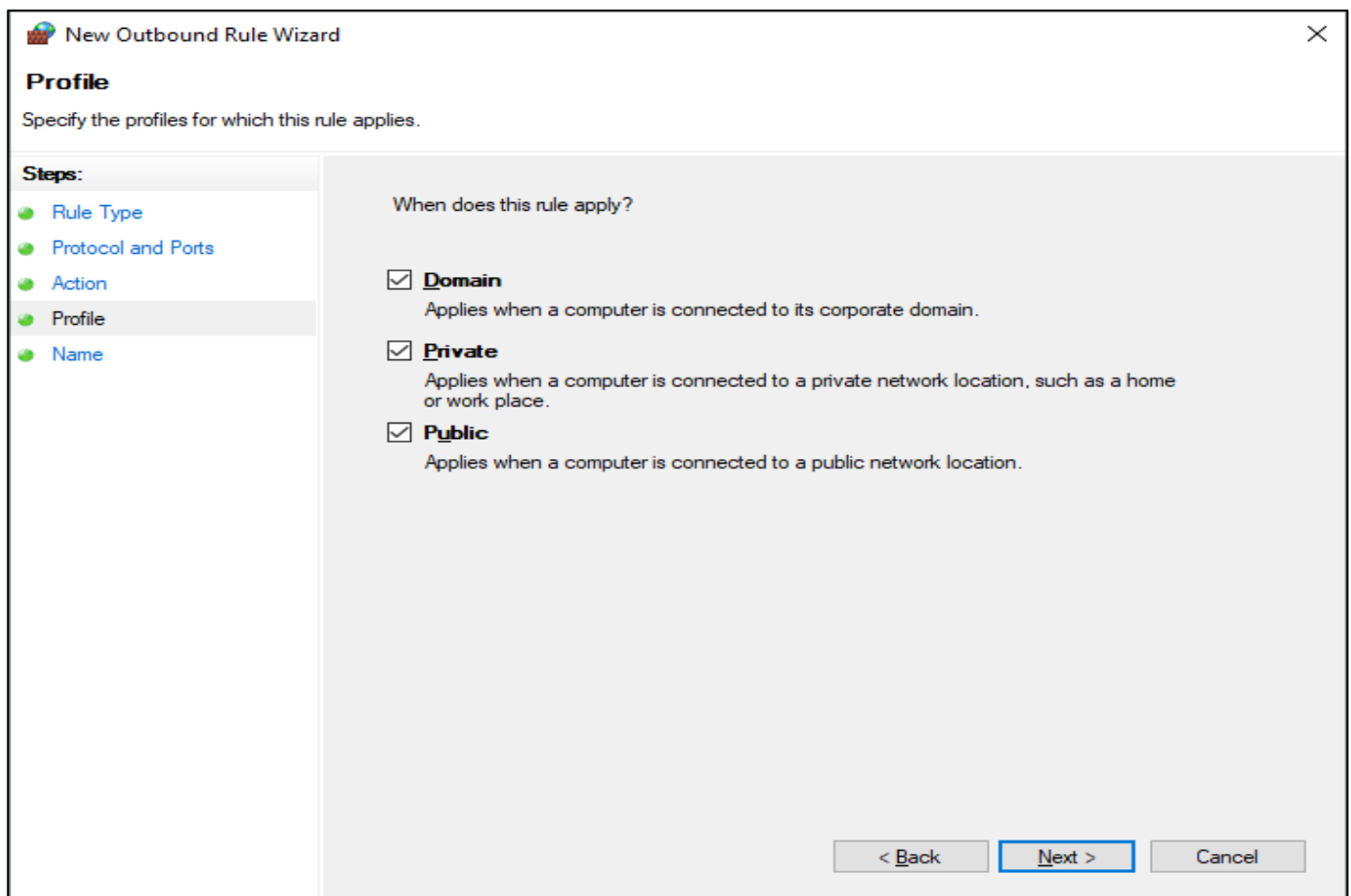
What action should be taken when a connection matches the specified conditions?

☐ **Allow the connection**  
This includes connections that are protected with IPsec as well as those are not.

☐ **Allow the connection if it is secure**  
This includes only connections that have been authenticated by using IPsec. Connections will be secured using the settings in IPsec properties and rules in the Connection Security Rule node.  
[Customize...](#)

☒ **Block the connection**

< Back   **Next >**   Cancel

**Step 10: Select the profiles domain private or public.**

**New Outbound Rule Wizard**

**Profile**

Specify the profiles for which this rule applies.

**Steps:**

- Rule Type
- Protocol and Ports
- Action
- Profile**
- Name

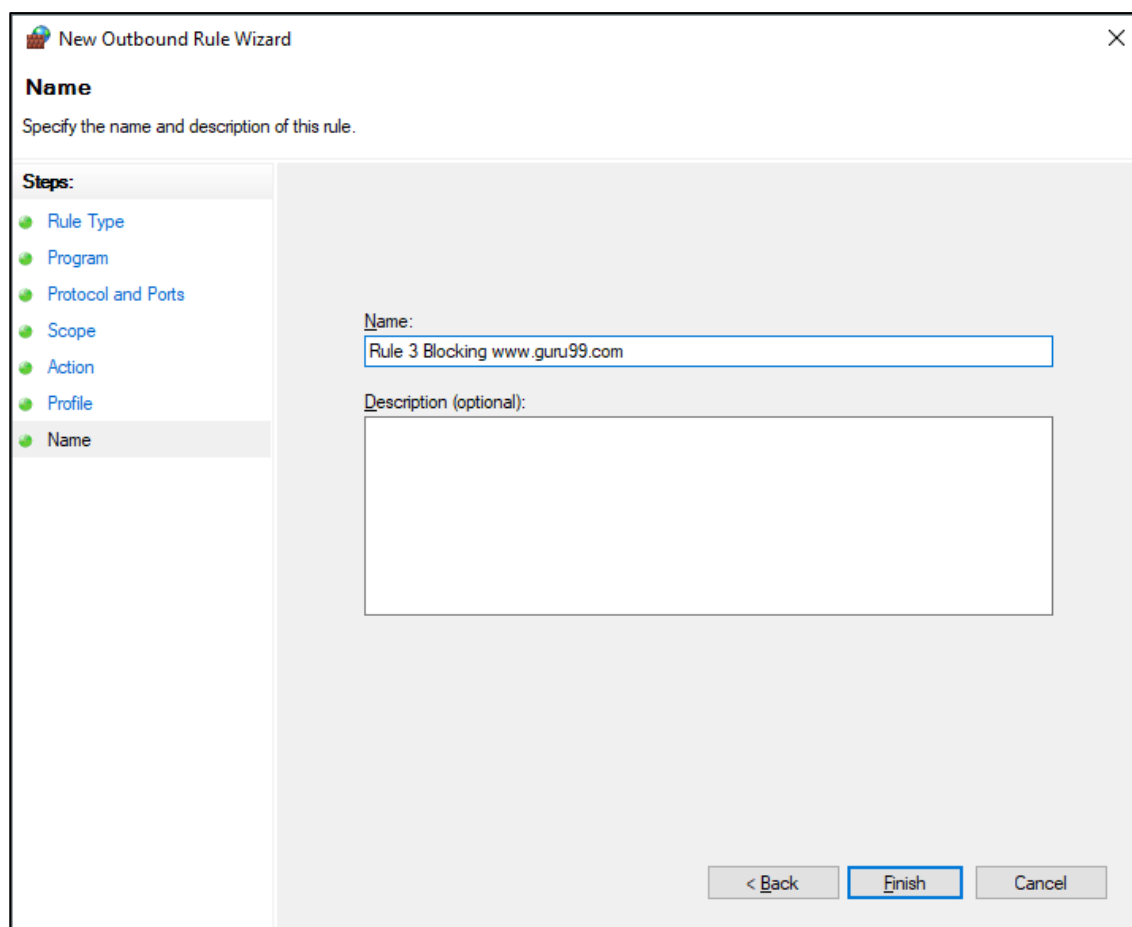
When does this rule apply?

☒ **Domain**  
Applies when a computer is connected to its corporate domain.

☒ **Private**  
Applies when a computer is connected to a private network location, such as a home or work place.

☒ **Public**  
Applies when a computer is connected to a public network location.

< Back   **Next >**   Cancel

**Step 11: Give a name to your new set rule and click on finish.**

The image shows a 'New Outbound Rule Wizard' dialog box. On the left, a 'Steps' list includes 'Rule Type', 'Program', 'Protocol and Ports', 'Scope', 'Action', 'Profile', and 'Name', with 'Name' selected. The main area is titled 'Name' and contains the instruction 'Specify the name and description of this rule.' It features a 'Name:' label above a text box containing 'Rule 3 Blocking www.guru99.com', and a 'Description (optional):' label above a larger empty text box. At the bottom right are '< Back', 'Finish', and 'Cancel' buttons.

New Outbound Rule Wizard

**Name**

Specify the name and description of this rule.

**Steps:**

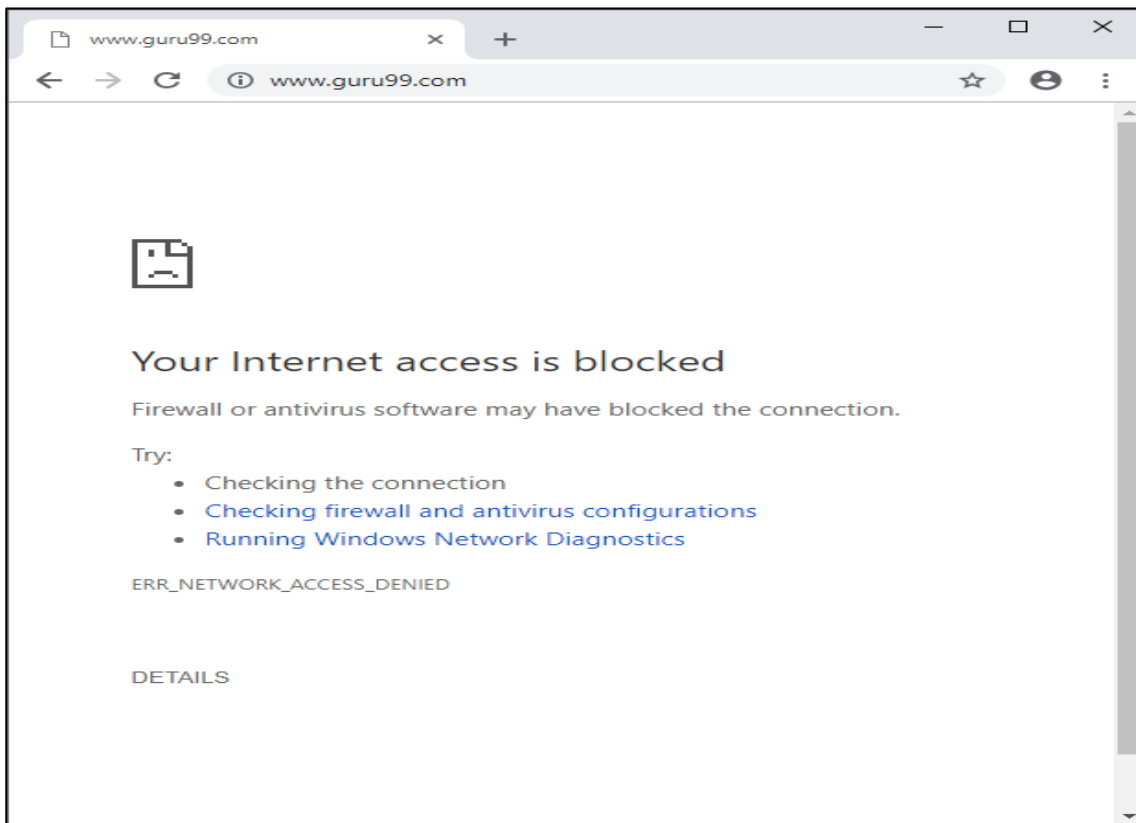
- Rule Type
- Program
- Protocol and Ports
- Scope
- Action
- Profile
- Name

Name:

Rule 3 Blocking www.guru99.com

Description (optional):

< Back Finish Cancel

Output:

```
Command Prompt
Microsoft Windows [Version 10.0.17134.285]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\hp>ping www.guru99.com

Pinging guru99.com [64:ff9b::4834:fb47] with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 64:ff9b::4834:fb47:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\Users\hp>
```