

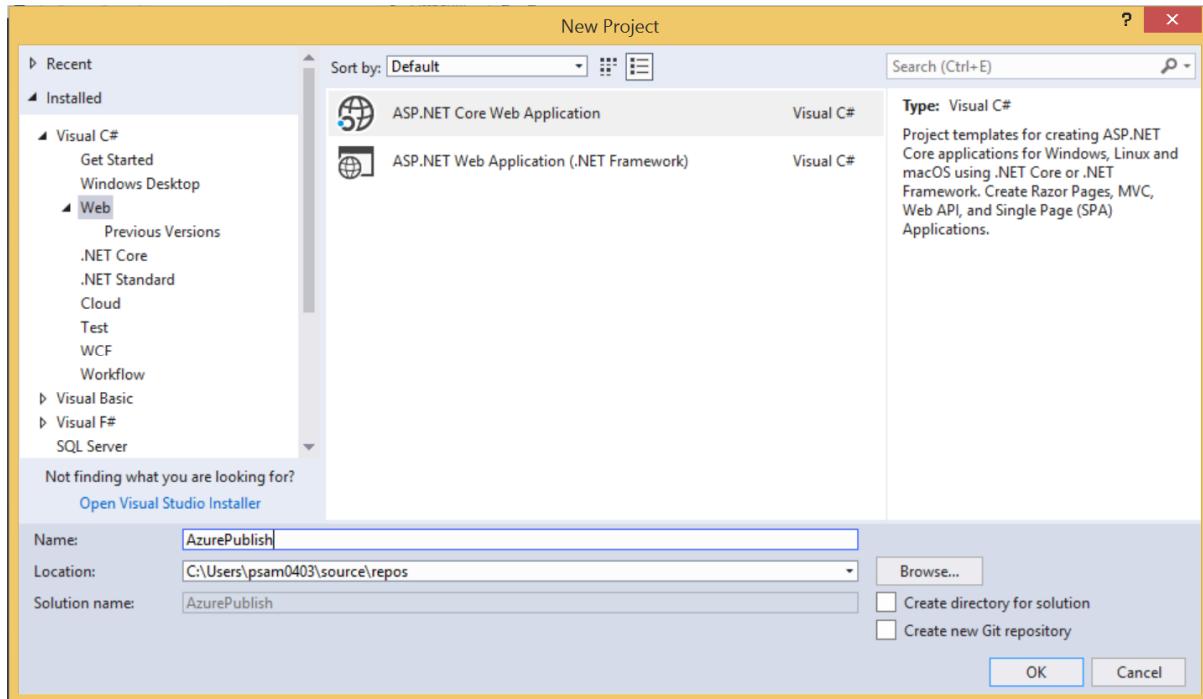
How to Configure Custom Domain Name (DNS) to Azure Web App

In this tutorial I'm going to show how to:

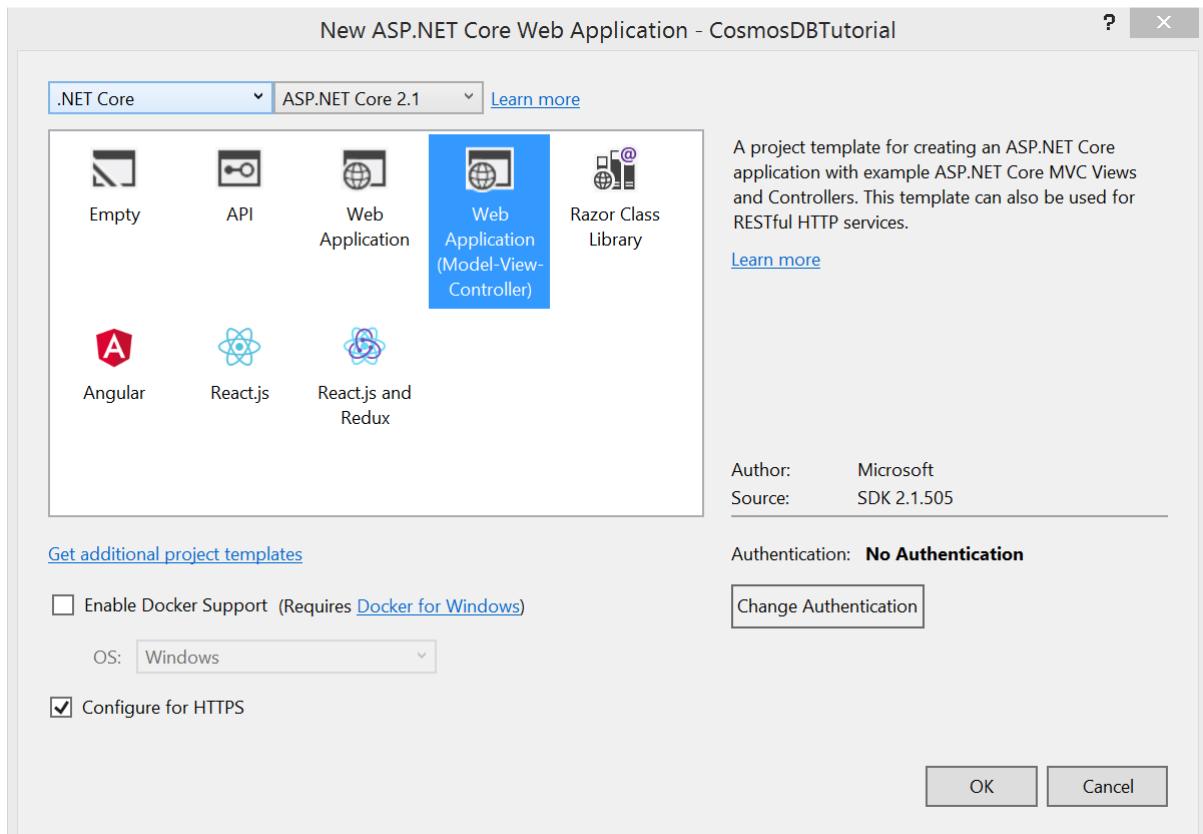
- Create an ASP.NET Core MVC Application and Publish to Azure
- Create/Purchase a Custom Domain from a Custom Domain Provider
- Configure Custom Domain on Azure

Step 01: Create an ASP.NET Core MVC Application and Publish to Azure

Create a new ASP .Net Core Web Project – Name it AzurePublish.



- Net Core 2.1
- MVC



For this tutorial I will be using Resource Group, App Service Plan, App Service which are already existing in my Azure subscription.

Resource Group:

- Resource Group Name: patsam-rg
- Location: Central US

The screenshot shows the Azure Resource Groups blade. At the top, there's a breadcrumb navigation: Home > Resource groups. Below it, the title 'Resource groups' and the subtitle 'RXP Services Ltd'. There are several buttons: '+ Add', 'Edit columns', 'Refresh', 'Export to CSV', 'Assign tags', and 'Feedback'. A search bar 'Filter by name...' and a dropdown 'Subscription == all' are also present. The main table displays one record: 'Showing 1 to 1 of 1 records.' The table has columns: 'Name' (with a filter icon), 'Subscription' (Visual Studio Enterprise – MPN), and 'Location' (Central US). The 'Name' column contains 'patsam-rg'.

App Service Plan:

- App Service Plan Name: patsam-ps
- Operating system: Windows
- Sku and size: Free F1

The screenshot shows the 'Create App Service Plan' blade. At the top, there are tabs: 'Basic' (selected), 'Tags', 'Review + create'. Below the tabs, a note says: 'App Service plans give you the flexibility to allocate specific apps to a given set of resources and further optimize your Azure resource utilization. This way, if you want to save money on your testing environment you can share a plan across multiple apps.' A 'Learn more' link is provided. The 'Project Details' section includes fields for 'Subscription' (Visual Studio Enterprise – MPN) and 'Resource Group' (patsam-rg). The 'App Service Plan details' section includes 'Name' (patsam-ps), 'Operating System' (Windows selected), and 'Region' (Central US). The 'Pricing Tier' section shows 'Free F1' selected, with a note: 'Shared infrastructure, 1 GB memory' and a 'Change size' link. At the bottom, there are buttons: 'Review + create' (highlighted in blue), '< Previous', and 'Next : Tags >'.

The screenshot shows the 'App Service plans' blade. At the top, there's a breadcrumb navigation: Home > App Service plans. The title 'App Service plans' and subtitle 'RXP Services Ltd'. Buttons include '+ Add', 'Edit columns', 'Refresh', and 'Assign tags'. A note says: 'Subscriptions: Visual Studio Enterprise – MPN – Don't see a subscription? Open Directory + Subscription settings'. The main table displays one item: 'patsam-ps'. The table has columns: 'Name' (patsam-ps), 'Apps' (1), 'Pricing Tier' (patsam-sp (F1: Free)), 'Resource group' (patsam-rg), and 'Subscription' (Visual Studio Enterprise – M...). The 'Name' column has a filter icon.

For this example, I used F1 as the pricing tier.

Spec Picker

Dev / Test
For less demanding workloads

Production
For most production workloads

Isolated
Advanced networking and scale

Recommended pricing tiers

Tier	Shared infrastructure	Memory	Compute	Cost
F1	1 GB memory	60 minutes/day compute	Free	
D1	1 GB memory	240 minutes/day compute	13.03 AUD/Month (Estimated)	
B1	100 total ACU	1.75 GB memory	A-Series compute equivalent	44.10 AUD/Month (Estimated)

[See additional options](#)

Included hardware

Every instance of your App Service plan will include the following hardware configuration:

Azure Compute Units (ACU) Dedicated compute resources used to run applications deployed in the App Service Plan. Learn more
Memory Memory available to run applications deployed and running in the App Service plan.
Storage 1 GB disk storage shared by all apps deployed in the App Service plan.

Apply

App Service:

- App Service Name: patsam
- Publish: Code
- Runtime stack: .Net Core 2.1 (since we created a .Net Core 2.1 MVC Web Application)
- Operating system: Windows
- App Service Plan: patsam-sp (App Service Plan we created earlier)

The screenshot shows the 'Web App' creation wizard in the Azure portal. The 'Basics' tab is selected. Key configuration details include:

- Subscription:** Visual Studio Enterprise – MPN
- Resource Group:** patsam-rg
- Name:** patsam (selected from dropdown)
- Publish:** Code (selected)
- Runtime stack:** .NET Core 2.1 (LTS)
- Operating System:** Windows (selected)
- Region:** Central US
- App Service Plan:** patsam-sp (F1) (selected from dropdown)
- Sku and size:** Free F1 (Shared infrastructure, 1 GB memory)

At the bottom, there are 'Review + create' and 'Next : Monitoring >' buttons.

The screenshot shows the 'App Services' list in the Azure portal. The table displays the following information for the 'patsam' service:

Name	Status	Location	Pricing Tier	App Service Plan	Subscription	App Type
patsam	Running	Central US	Free	patsam-sp	Visual Studio Enterpri...	Web App

Next go inside the newly created App Service. Click on it.

The screenshot shows the 'App Services' blade in the Azure portal. It lists one record: 'patsam'. The details are as follows:

Name	Status	Location	Pricing Tier	App Service Plan	Subscription	App Type
patsam	Running	Central US	Free	patsam-sp	Visual Studio Enterprise - MPN	Web App

Click on Browse button to check whether we have created the App Service successfully.

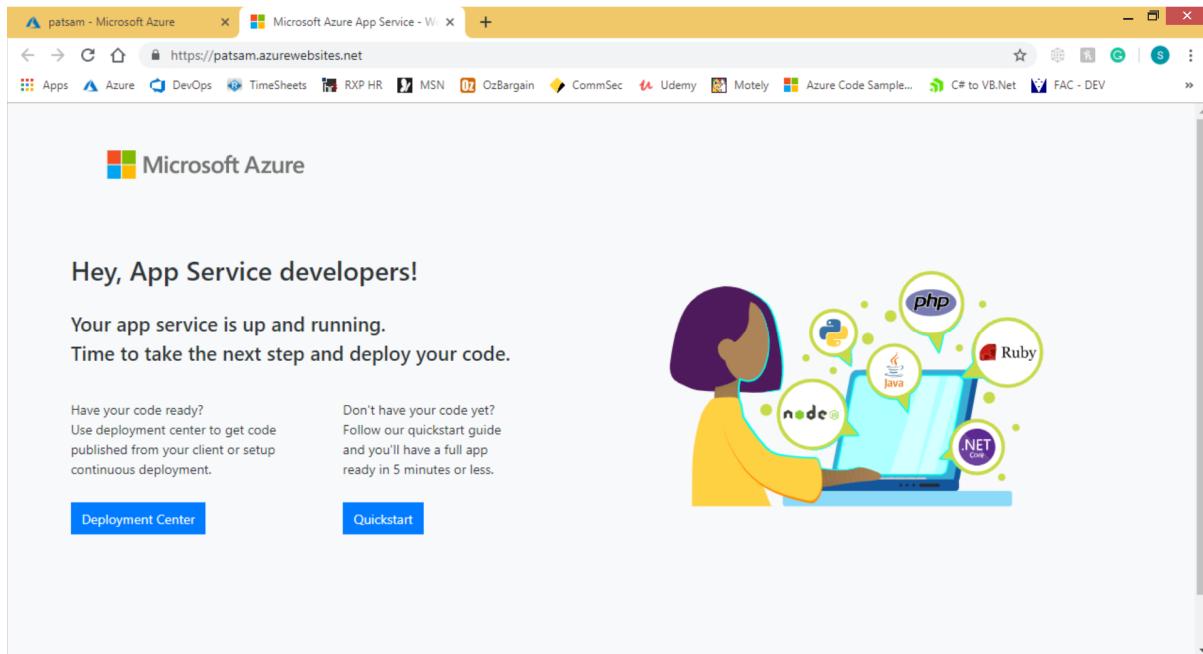
The screenshot shows the 'Overview' page for the 'patsam' app service. Key details displayed include:

- Resource group: patsam-rg
- Status: Running
- Location: Central US
- Subscription: Visual Studio Enterprise - MPN
- URL: https://patsam.azurewebsites.net
- App Service Plan: patsam-sp (F1: Free)
- FTP/deployment username: patsam\deploy-patrick-sameera
- FTP hostname: ftp://waws-prod-dm1-155.ftp.azurewebsites.windows.net
- FTPS hostname: https://waws-prod-dm1-155.ftp.azurewebsites.windows.net

On the left sidebar, the 'Overview' tab is selected. Other tabs include Activity log, Access control (IAM), Tags, Diagnose and solve problems, Security, Deployment (Quickstart, Deployment slots, Deployment Center), Settings, and Configuration.

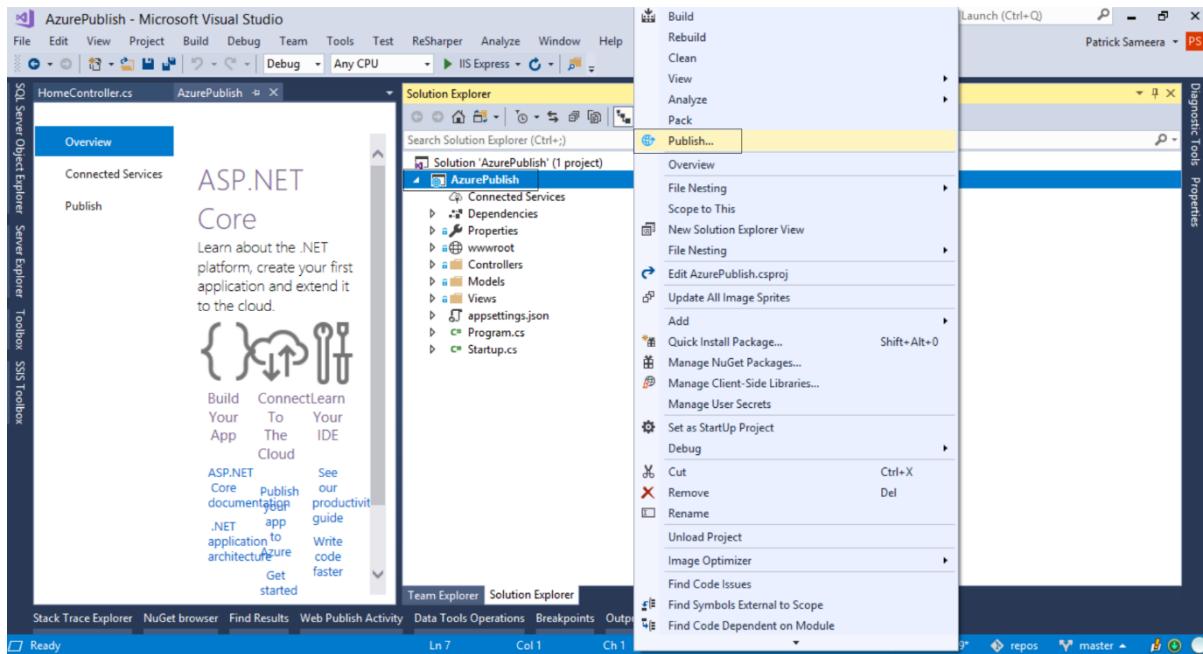
We can see it's working fine.

- <https://patsam.azurewebsites.net/>

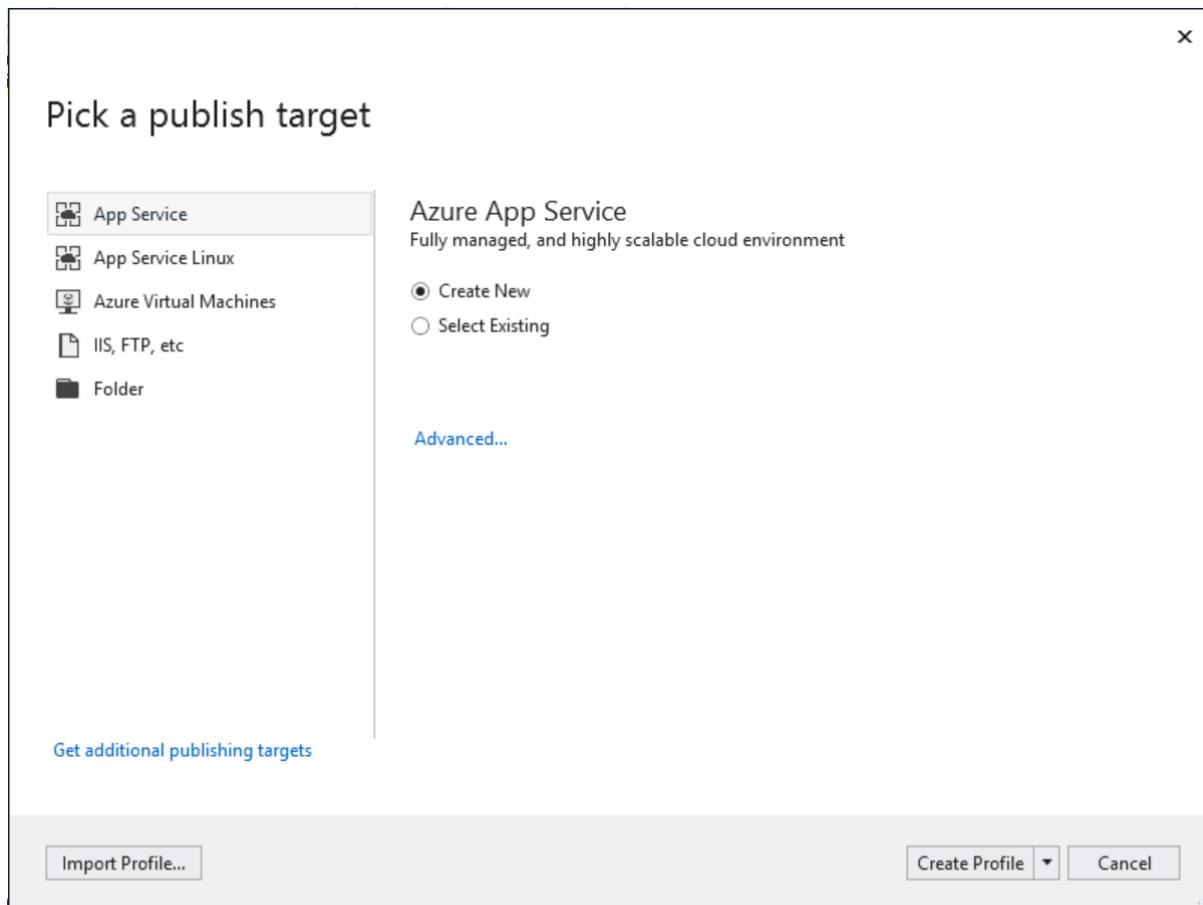


Next, we need to publish the code to Azure.

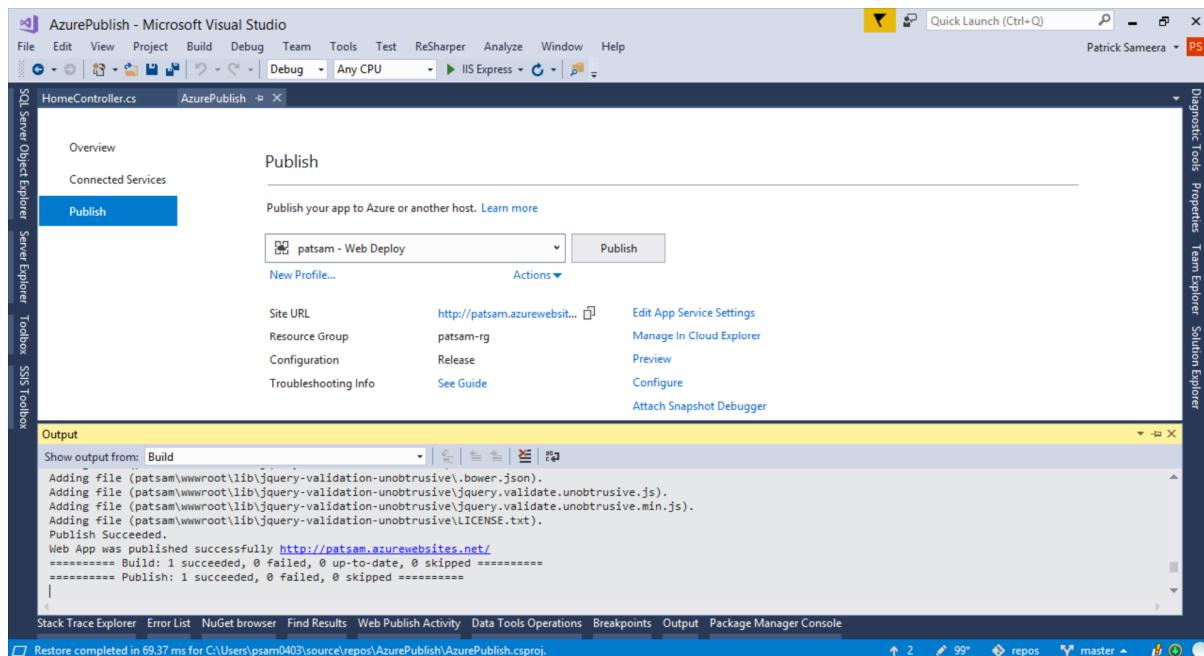
In Visual Studio go Solution Explorer, right click on the Project and select Publish.



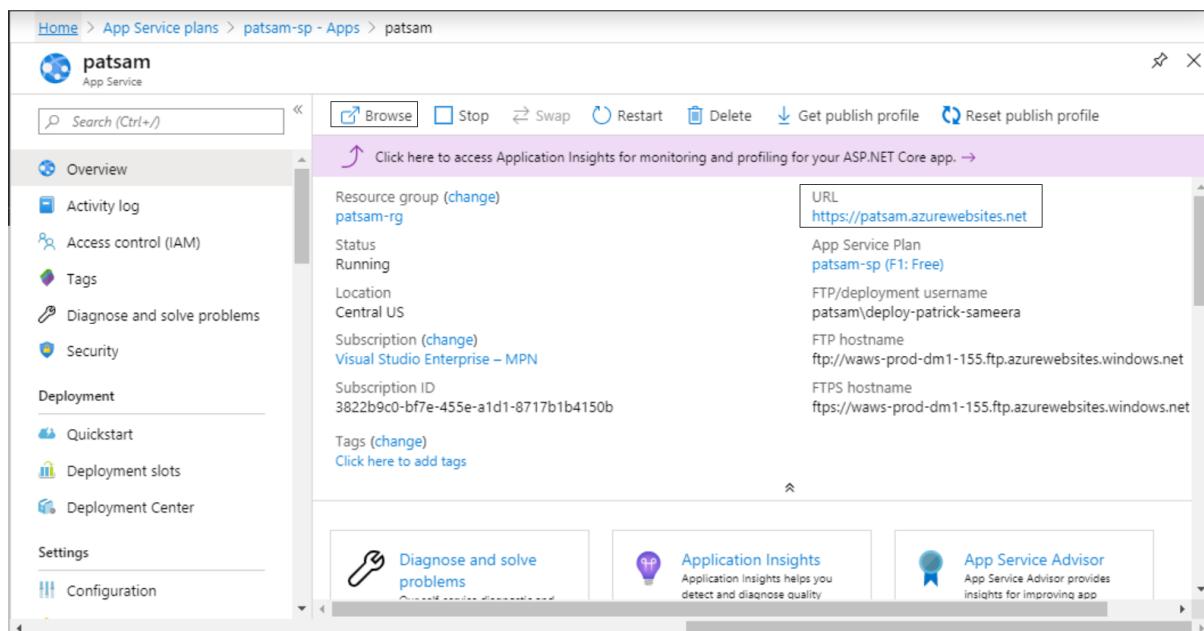
Setup a Publish Profile and Publish the code.



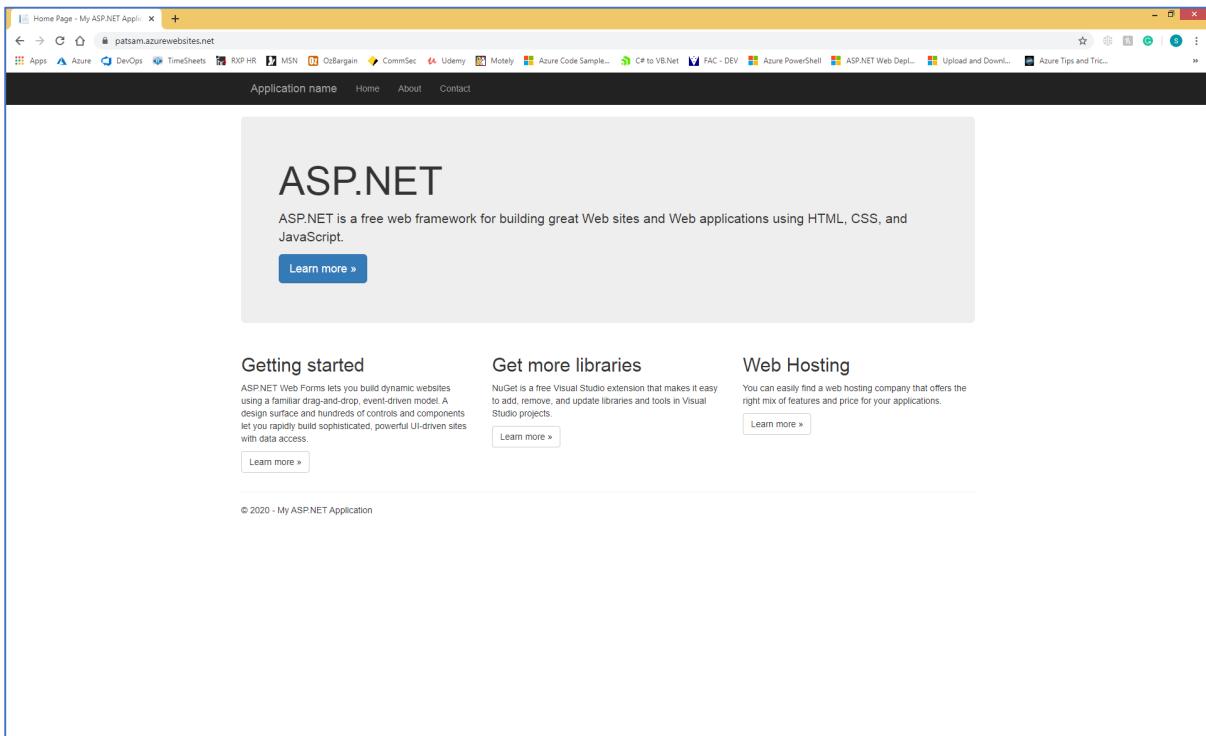
It will start publishing the content to Azure. Make sure it's been Published correctly.



Go to App Service again and click Browse button or manaually copy the URL and paste it to a browser.



- <https://patsam.azurewebsites.net/>



Step 02: Create/Purchase a Custom Domain from a Custom Domain Provider

Let's say we want a custom domain and we are going to buy it from GoDaddy.

- <https://au.godaddy.com/>

The screenshot shows the GoDaddy homepage. At the top, there's a search bar with the placeholder "Find your perfect domain". Below the search bar, there are two main promotional sections: "Give your web address a local flavour." on the left featuring a "Find Your .com.au" button, and "Create a website that gets found on Google." on the right featuring a "Try for Free" button. A central image of a smiling man in an apron is displayed. A black banner at the bottom states: "For every new .com.au, .net.au and .org.au purchased, we'll donate \$1 to the Australian Red Cross." Below this, there's a grid of service offerings: ".com" (\$16.95/1st yr), "Web Hosting" (\$4.95/mo), "SSL Security" (\$87.95/yr); "Email" (\$4.95/mo), "WordPress" (\$5.50/mo), and "Office 365" (\$11.95/mo). To the right, there's a ".CLUB" section with a "Sale! \$1.95/1st yr. Bring everyone together online" offer.

There try to find the domain name you want to obtain.

In my case I'm going to buy:

- www.patricksameera.com

The screenshot shows the GoDaddy Domain Search results page for "patricksameera". The top search bar has "patricksameera" in it. The main result is "patricksameera.com.au is available" at \$14.95 for the first year. It includes a "Buy 3 and Save 67%" offer for other extensions like .net, .org, and .info. Below this, there are other suggested domains: "patrick-sameera.com.au", "patricksumeera.com.au", and "patricksameera.live". Each suggestion has its price and an "Add to Cart" button. A "Contact Us" button is located in the bottom right corner.

Once you purchase it, it will show the purchased domain name under My Products.

The screenshot shows the GoDaddy 'Products' section. At the top, there's a banner for 'Website Builder Free Trial'. Below it, a section titled 'Your Website + Marketing websites' features a 'New Website' card with a padlock icon and a 'Free Trial expires on 15/02/2020' message. Underneath, a section titled 'All your products and services' shows a 'Domains' card with the domain 'patricksameera.com' listed. The GoDaddy logo is at the bottom left, and a search bar is at the bottom right.

Make sure it works.

- <http://www.patricksameera.com/>

The screenshot shows the GoDaddy 'Domain Manager' page for the domain 'patricksameera.com'. It displays a message stating 'This Web page is parked FREE, courtesy of GoDaddy.' Below this, a large graphic features two hands interacting with a computer monitor displaying a colorful website design. A call-to-action button 'Start For Free' is visible. At the bottom, a section titled 'Our award-winning, 24/7 support always has your back.' includes links to the 'help center' and a phone number, along with a 'Contact Us' button featuring a small profile picture.

Step 03: Configure Custom Domain on Azure

Go to the App Service we created we earlier and Click on Custom Domain.

When we go inside, we can see a message saying,

- *Click here to upgrade your app service plan to assign custom hostnames to your app.*

That is because for this App Service, when creating it we used F1 free pricing tier. In order to add Custom Domain, we need to upgrade it to much higher tier.

Either you can click on that message or click on Scale Up (App Service Plan) tab option.

I'm going to select D1 pricing tier. Click Apply.

When we select D1, it shows Custom Domain feature in the included feature list.

The screenshot shows the Azure portal's 'Scale up (App Service plan)' configuration page for the 'patsam' app service. On the left, a sidebar lists various settings like Overview, Activity log, and Custom domains. The main area shows three pricing tiers: F1 (Dev/Test), D1 (Production), and B1 (Isolated). The D1 tier is selected and highlighted in purple. Below the tiers, the 'Included features' section lists 'Custom domains' as a feature available for every app hosted on the plan. To the right, 'Included hardware' details shared memory and disk storage. At the bottom, there is an 'Apply' button.

Now again go to Custom Domain tab. Now we can see the Add Custom Domain button.

The screenshot shows the Azure portal's 'Custom domains' configuration page for the 'patsam' app service. The sidebar includes 'Custom domains' under the 'Settings' section. The main area displays the 'Custom Domains' section with an 'IP address' field set to '13.89.172.6'. An 'HTTPS Only' toggle switch is set to 'On'. A large 'Add custom domain' button is prominently displayed. Below it, a status filter shows 'All (1)', 'Not Secure (0)', and 'Secure (1)'. Under 'SSL STATE', there is a 'Secure' entry for 'patsam.azurewebsites.net'. The 'SSL Binding' column shows 'SSL Binding'. The 'App Service Domains' section below has a 'Buy Domain' button and a table with columns 'DOMAINS', 'EXPIRES', and 'STATUS', which shows 'No data found'.

Click on Add Custom Domain button.

Enter www.patricksameera.com as the Custom Domain and click Validate.

The screenshot shows the Azure portal interface for managing custom domains. On the left, there's a sidebar with 'Custom domains' selected. The main area is titled 'Custom Domains' and shows a table of assigned custom domains. A modal window titled 'Add custom domain' is open in the top right corner. It contains a text input field with 'www.patricksameera.com' and a 'Validate' button below it. The entire 'Add custom domain' section is highlighted with a red border.

It will show bellow errors.

A Record option selected:

Add custom domain X
patsam

Custom domain *
 ✓

Validate

Hostname record type
 ▼

 **A record configuration**

An A record should map your domain to the IP address of your app. In your scenario, that means mapping www.patricksameera.com to your IP address 13.89.172.6. Along with an A record, you also need to add a TXT record. The TXT record should point to your default Azure domain, patsam.azurewebsites.net. [Learn More](#)

External IP address

Add custom domain

i DNS propagation
Please be aware that depending on your DNS provider it can take up to 48 hours for the DNS entry changes to propagate. You can verify that the DNS propagation is working as expected by using <http://digwebinterface.com/>. [Learn more](#)

✓ Hostname availability

! Domain ownership
To verify domain ownership create TXT and A records with your DNS provider using the configuration below. [Learn more](#)

Type	Host	Value
TXT	@	patsam.azurewebsites.net
A	@	13.89.172.6

CNAME Record option selected:

Add custom domain X

patsam

Custom domain *****

✓

Validate

Hostname record type

▼

 **CNAME configuration**

A CNAME record is used to specify that a domain name is an alias for another domain. In your scenario, that would be mapping www.patricksameera.com to patsam.azurewebsites.net [Learn More](#)

CNAME

Add custom domain

i DNS propagation

Please be aware that depending on your DNS provider it can take up to 48 hours for the DNS entry changes to propagate. You can verify that the DNS propagation is working as expected by using <http://digwebinterface.com/>. [Learn more](#)

✓ Hostname availability

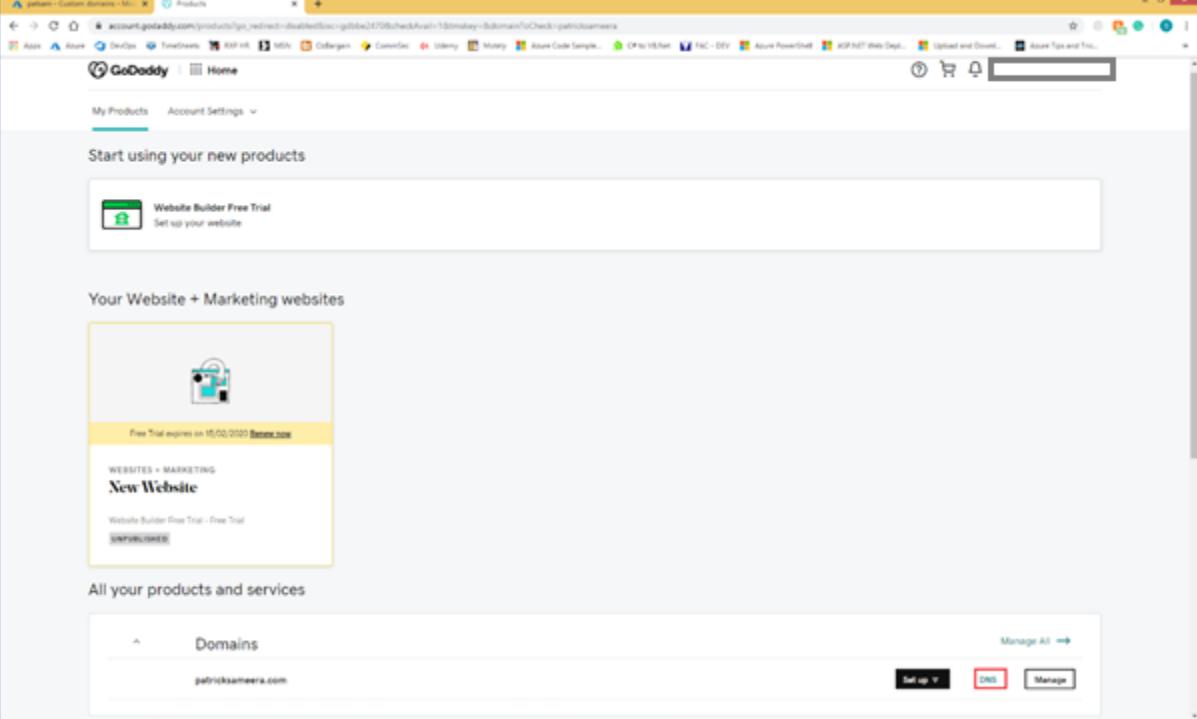
! Domain ownership

Create an CNAME record with your DNS provider using the configuration below. [Learn more](#)

Type	Host	Value
CNAME	www or subdomain	patsam.azurewebsites.net

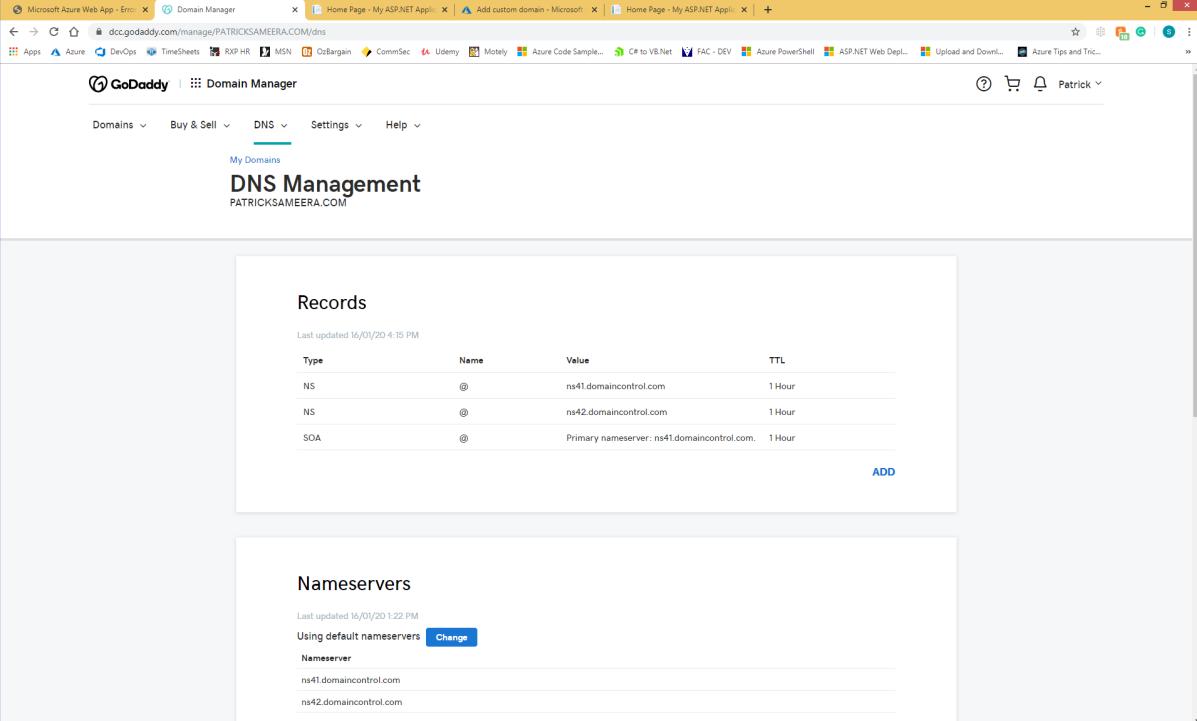
Which means, to overcome this issue we need to add above records on Custom Domain portal.

To add above records, we need to go inside the domain provider web site, in my case it's GoDaddy. Go inside the My Products → Domains and click DNS button for patricksameera.com.



The screenshot shows the GoDaddy My Products dashboard. At the top, there are links for 'My Products' and 'Account Settings'. Below this, a section titled 'Start using your new products' features a 'Website Builder Free Trial' button. The main area is titled 'Your Website + Marketing websites' and shows a 'New Website' card with a lock icon, a 'Free Trial expires on 15/02/2020' message, and a 'View now' button. Below this, a section titled 'All your products and services' lists 'Domains' with 'patricksameera.com' shown. To the right of the domain list are buttons for 'Set up', 'DNS' (which is highlighted with a red box), and 'Manage'.

We can see few records.



The screenshot shows the GoDaddy Domain Manager - DNS Management page for the domain 'PATRICKSAMEERA.COM'. The top navigation bar includes 'Domains', 'Buy & Sell', 'DNS' (highlighted with a red box), 'Settings', and 'Help'. The main section is titled 'DNS Management' and shows the 'Records' table. The table has columns for 'Type', 'Name', 'Value', and 'TTL'. It contains three entries: an NS record for '@' pointing to 'ns41.domaincontrol.com' with a TTL of '1 Hour', another NS record for '@' pointing to 'ns42.domaincontrol.com' with a TTL of '1 Hour', and an SOA record for '@' with the value 'Primary nameserver: ns41.domaincontrol.com.' and a TTL of '1 Hour'. An 'ADD' button is located at the bottom right of the table. Below the table is a 'Nameservers' section with a table showing 'ns41.domaincontrol.com' and 'ns42.domaincontrol.com'.

Addition to these existing records we need to create 3 more records.

- CNAME Record
- A Record
- TXT Record

Click Add button.

CNAME Record:

You can retrieve the URL from Overview tab.

The screenshot shows two windows side-by-side. The top window is the 'Overview' tab for an Azure app service named 'patsam'. It displays basic information like status (Running), location (Central US), and deployment details. The bottom window is a modal dialog for creating a new CNAME record. It has fields for Type (set to 'CNAME'), Host (set to 'www'), Points to (set to 'patsam.azurewebsites.net'), and TTL (set to '1 Hour'). At the bottom are 'Save' and 'Cancel' buttons.

TXT Record:

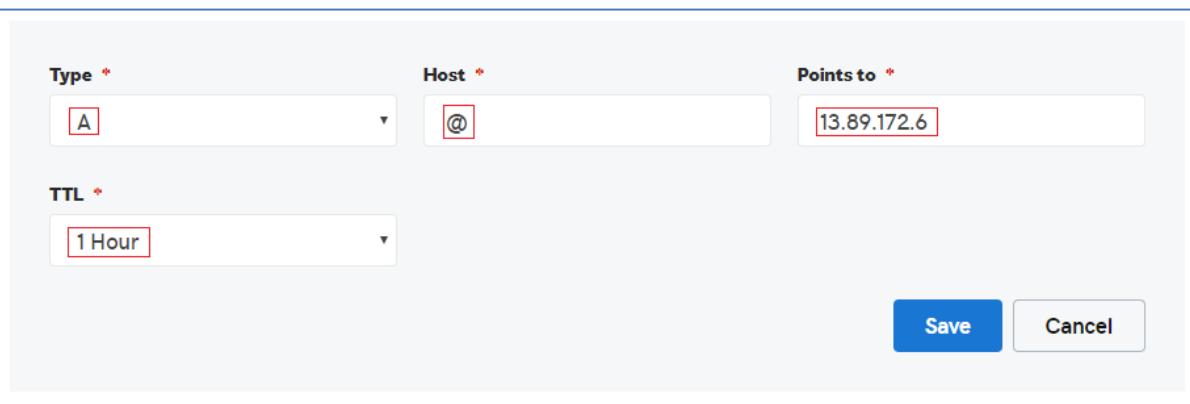
This screenshot shows the same modal dialog for creating a CNAME record as the previous one, but with different values. The 'Type' field is set to 'TXT', the 'Host' field to '@', and the 'Points to' field to 'patsam.azurewebsites.net'. The other fields (TTL, Save/Cancel) are identical to the previous screenshot.

A Record:

You can retrieve the IP address from Custom Domains tab.



The screenshot shows the 'Custom Domains' section of the Azure portal. It displays an IP address (13.89.172.6) and an 'HTTPS Only' toggle set to 'Off'. Below this, there's a button to 'Add custom domain'. At the bottom, a status filter shows 'All (1)', 'Not Secure (0)', and 'Secure (1)'.

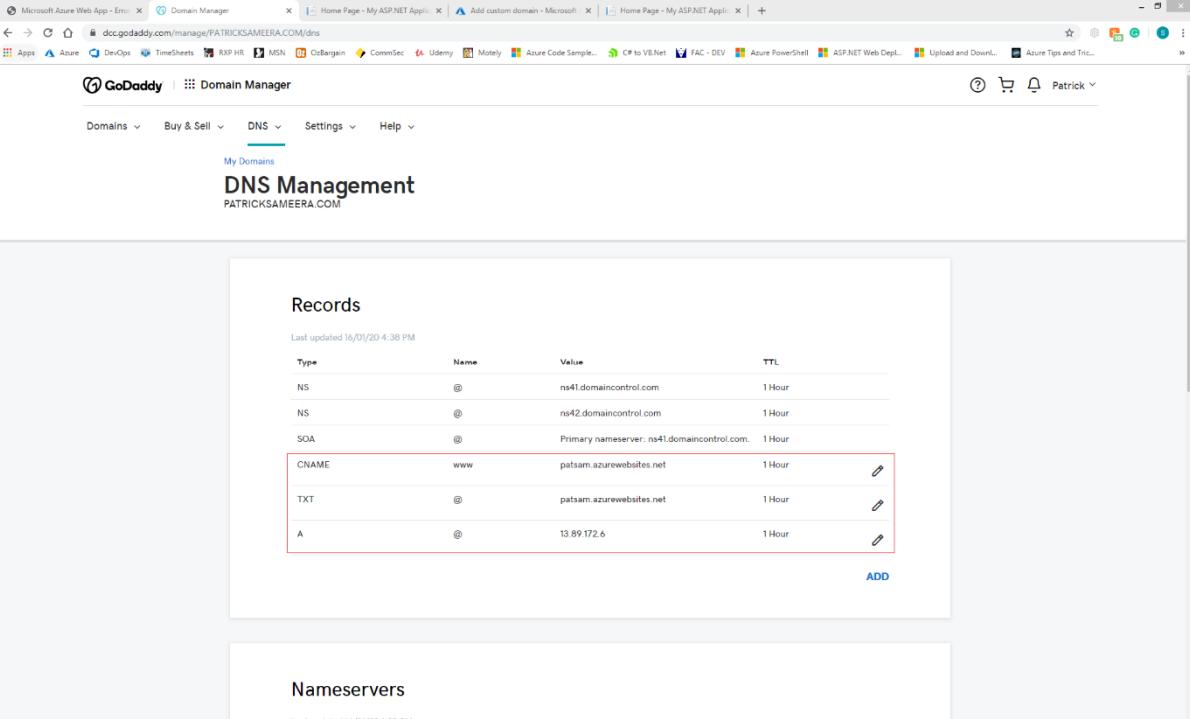


The screenshot shows the 'DNS Management' blade for a specific domain. It's creating an A record with the following details:

Type *	Host *	Points to *
A	@	13.89.172.6

The TTL is set to '1 Hour'. There are 'Save' and 'Cancel' buttons at the bottom.

After adding those 3 records, it should like bellow.



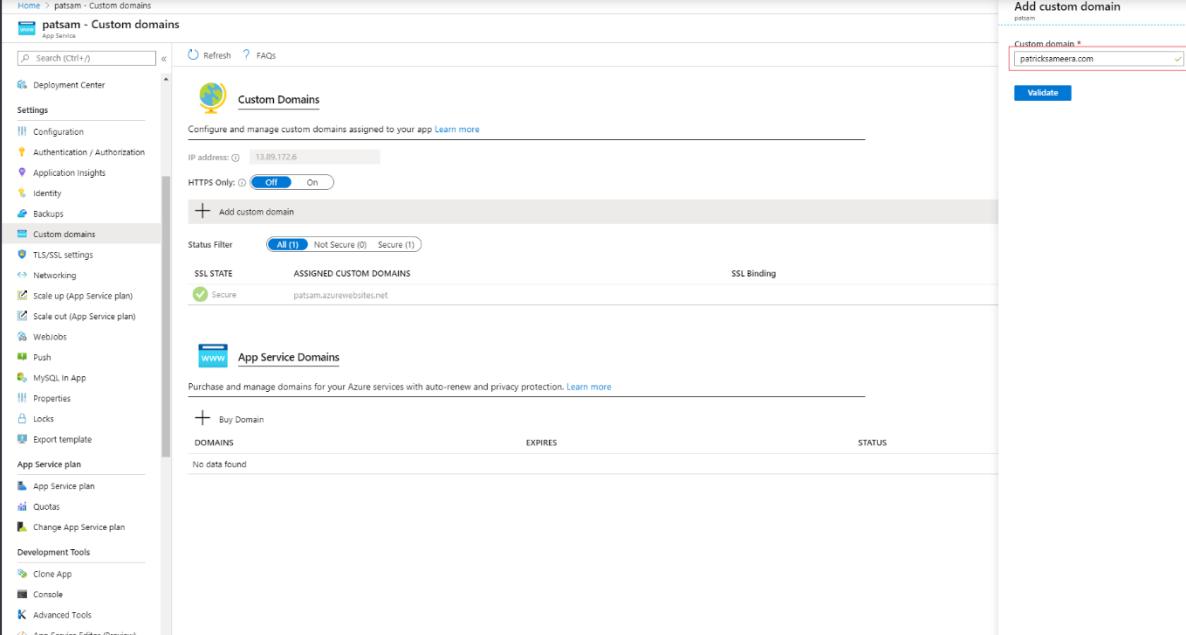
The screenshot shows the GoDaddy Domain Manager 'DNS Management' section for the domain PATRICKSAMEERA.COM. It lists three records:

Type	Name	Value	TTL
NS	@	ns41.domaincontrol.com	1 Hour
NS	@	ns42.domaincontrol.com	1 Hour
SOA	@	Primary nameserver: ns41.domaincontrol.com.	1 Hour
CNAME	www	patksam.azurewebsites.net	1 Hour
TXT	@	patksam.azurewebsites.net	1 Hour
A	@	13.89.172.6	1 Hour

The last updated time is 16/01/20 4:38 PM. An 'ADD' button is visible at the bottom right.

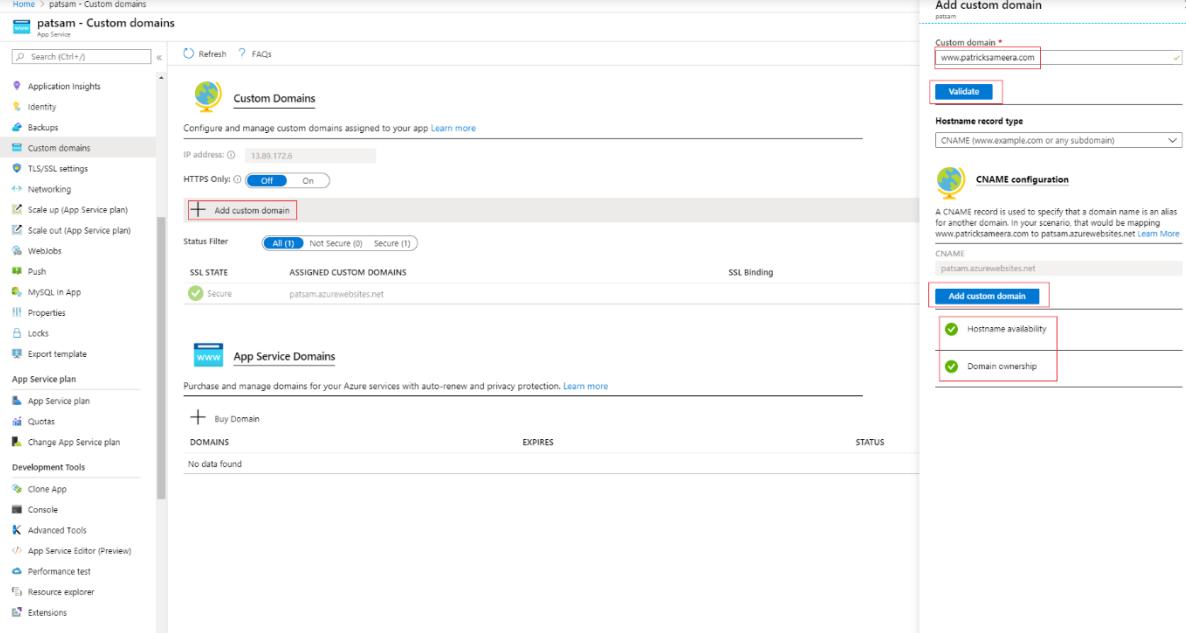
Try to add the Custom Domain again.

Add the domain and click Validate.



The screenshot shows the Azure portal's 'Custom Domains' blade for the 'patsam' app service. On the left, there's a sidebar with various settings like Configuration, Authentication / Authorization, Application Insights, Identity, Backups, Custom domains, TLS/SSL settings, Networking, Scale up (App Service plan), Scale out (App Service plan), Webhooks, Push, MySQL In App, Properties, Locks, Export template, App Service plan, App Service plan, Quotas, Change App Service plan, Development Tools, Clone App, Console, Advanced Tools, and App Service Editor (Preview). The main area shows the 'Custom Domains' configuration with an IP address of 13.89.172.6 and HTTPS Only set to Off. A table lists 'ASSIGNED CUSTOM DOMAINS' with one entry: 'Secure' (green checkmark) for 'patsam.azurewebsites.net'. Below this is the 'App Service Domains' section, which is currently empty. A modal window titled 'Add custom domain' is open, showing the 'Custom domain' field with 'patricksameera.com' selected. The 'Validate' button is highlighted with a red box.

This time it Validates fine.



The screenshot shows the Azure portal's 'Custom Domains' blade for the 'patsam' app service. The interface is identical to the previous screenshot, but the validation process has completed successfully. The 'Validate' button is now highlighted with a red box. The 'Hostname record type' dropdown is set to 'CNAME (www.example.com or any subdomain)'. The 'CNAME configuration' section shows 'patsam.azurewebsites.net' in the CNAME field. Below it, there are three checkboxes: 'Add custom domain' (highlighted with a red box), 'Hostname availability' (green checkmark), and 'Domain ownership' (green checkmark).

When we click Validate Azure checks for the ownership by validating the A Record and CNAME Record we configured earlier.

Once successfully validated click Add Custom Domain button.

Add custom domain

patsam

Custom domain *

 ✓

Validate

Hostname record type

A record (example.com) ▼

 A record configuration

An A record should map your domain to the IP address of your app. In your scenario, that means mapping patricksameera.com to your IP address 13.89.172.6. Along with an A record, you also need to add a TXT record. The TXT record should point to your default Azure domain, patsam.azurewebsites.net. [Learn More](#)

External IP address

13.89.172.6

Add custom domain

✓ Hostname availability

✓ Domain ownership

We can now see the newly added Custom Domain.

The screenshot shows the Azure portal's 'Custom domains' page for the 'patsam' app service. A yellow warning bar at the top states: 'You have custom domains that are not secured and will cause browser warnings/errors when accessed over https. Click on "Add binding" to secure your custom domain.' Below this, there are sections for 'Custom Domains' and 'App Service Domains'. In the 'Custom Domains' section, the IP address is listed as 13.89.172.6, and the 'HTTPS Only' toggle is set to 'Off'. Under 'Status Filter', 'All (2)' is selected. The table shows two rows: one for 'www.patricksameera.com' which is 'Not Secure' and another for 'patsam.azurewebsites.net' which is 'Secure'. In the 'SSL Binding' column, there is a 'Add binding' button next to the non-secure row. The 'App Service Domains' section shows no data found.

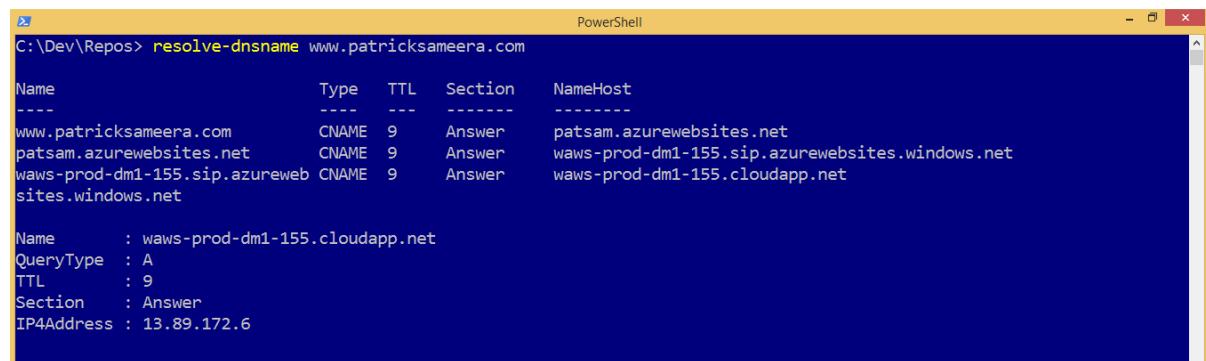
Now browse the URL:

- <http://www.patricksameera.com/>

The screenshot shows a web browser displaying the homepage of an ASP.NET application. The title bar shows multiple tabs, including 'Home Page - My ASP.NET Appli...', 'Domain Manager', 'Home Page - My ASP.NET Appli...', 'patsam - Custom domains - Mic...', and 'Home Page - My ASP.NET Appli...'. The main content area features the ASP.NET logo and the text: 'ASP.NET is a free web framework for building great Web sites and Web applications using HTML, CSS, and JavaScript.' Below this is a 'Learn more' button. The page is divided into three columns: 'Getting started' (describing ASP.NET Web Forms), 'Get more libraries' (describing NuGet), and 'Web Hosting' (describing web hosting companies). Each column has its own 'Learn more' button. At the bottom, it says '© 2020 - My ASP.NET Application'.

We can run bellow command to see the routing path.

`resolve-dnsname www.patricksameera.com`



The screenshot shows a Windows PowerShell window with the title "PowerShell". The command entered is "C:\Dev\Repos> resolve-dnsname www.patricksameera.com". The output displays the DNS resolution process:

Name	Type	TTL	Section	NameHost
www.patricksameera.com	CNAME	9	Answer	patsam.azurewebsites.net
patsam.azurewebsites.net	CNAME	9	Answer	waws-prod-dm1-155.sip.azurewebsites.windows.net
waws-prod-dm1-155.sip.azureweb	CNAME	9	Answer	waws-prod-dm1-155.cloudapp.net
sites.windows.net				

Below the table, detailed query information is provided:

```
Name      : waws-prod-dm1-155.cloudapp.net
QueryType : A
TTL       : 9
Section   : Answer
IP4Address : 13.89.172.6
```