DEVOPS with MULTI-CLOUD Practice Tasks

Institute Name : V Cube software solutions

Course : DevOps with Multi-Cloud

Batch : 30

Trainer : Krishna reddy sir

Prepared by : G.Bhavish
(MCD-AZ30-024)

TASK-12 : App Service.

Date : 04/02/26

Objective :-

To deploy, manage, and scale web applications in a fully managed cloud environment without handling infrastructure. It provides automatic scaling, high availability, and built-in security for modern web applications.

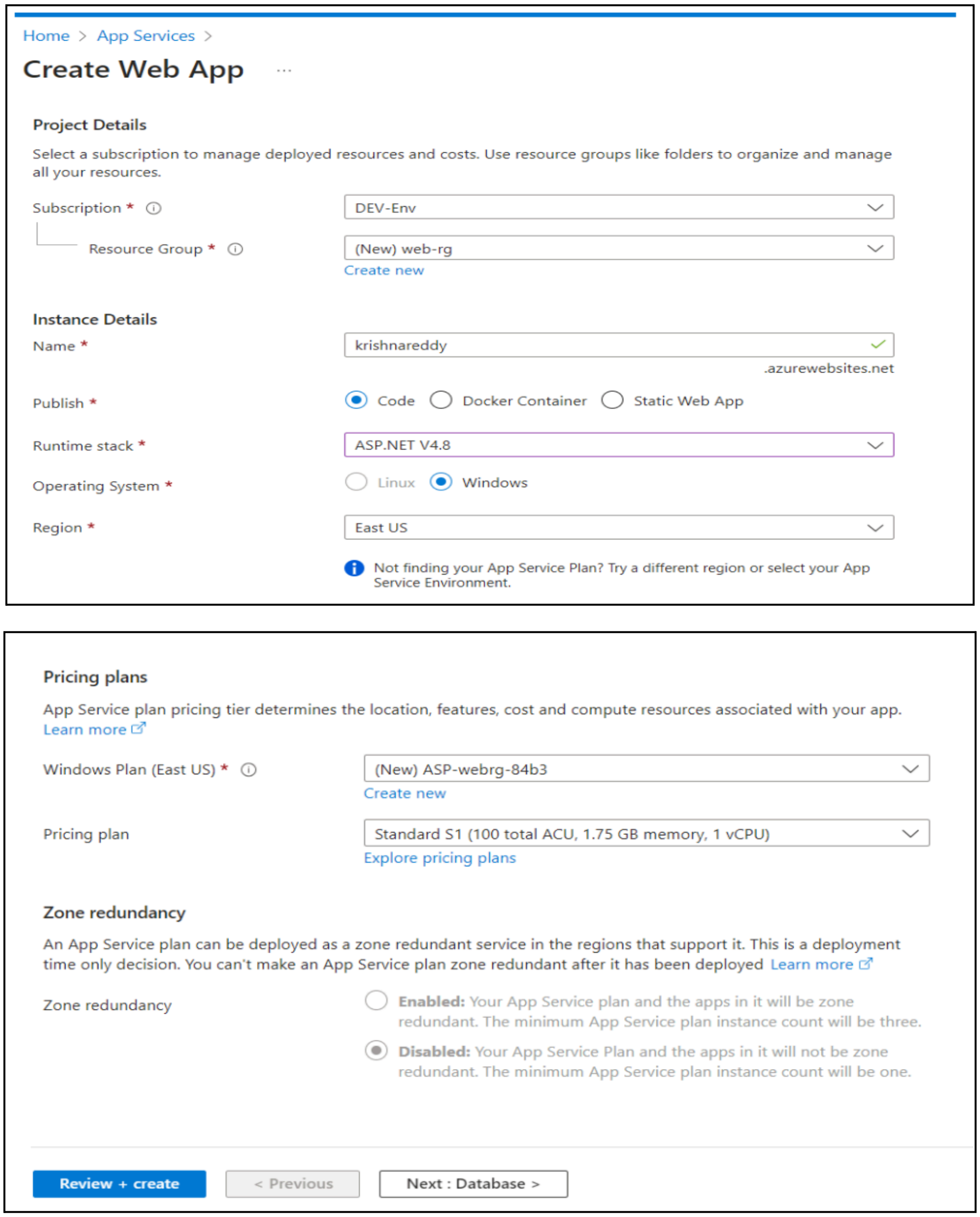
App Service :-

→ The Azure App Service is a PaaS (platform as a service) model.
→ The appservice is a fully managed PaaS service to host web applications, API’s and backend without managing servers or infrastructure.
→ Here, we just manage code, App logic, configuration and azure handles everything.
→ In the PaaS models all the machines will be under cloud control(we can’t login to the machines).
→ In App services we have blue green deployment strategies where we can upgrade the code without downtime. In case of any issues with the new upgraded code we can swap back to the old version of code.

WebApp Lab Practice :-

→ Now create a WebApp under the resource group g01.

→ while creating, configure all the details like code,runtime stack,operating system,pricing plans and networking.



Create Web App

Project Details

Select a subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription *	DEV-Env
Resource Group *	(New) web-rg Create new

Instance Details

Name *	krishnareddy ✓ .azurewebsites.net
Publish *	● Code ○ Docker Container ○ Static Web App
Runtime stack *	ASP.NET V4.8
Operating System *	○ Linux ● Windows
Region *	East US

Not finding your App Service Plan? Try a different region or select your App Service Environment.

Pricing plans

App Service plan pricing tier determines the location, features, cost and compute resources associated with your app. Learn more

Windows Plan (East US) *	(New) ASP-webrg-84b3 Create new
Pricing plan	Standard S1 (100 total ACU, 1.75 GB memory, 1 vCPU) Explore pricing plans

Zone redundancy

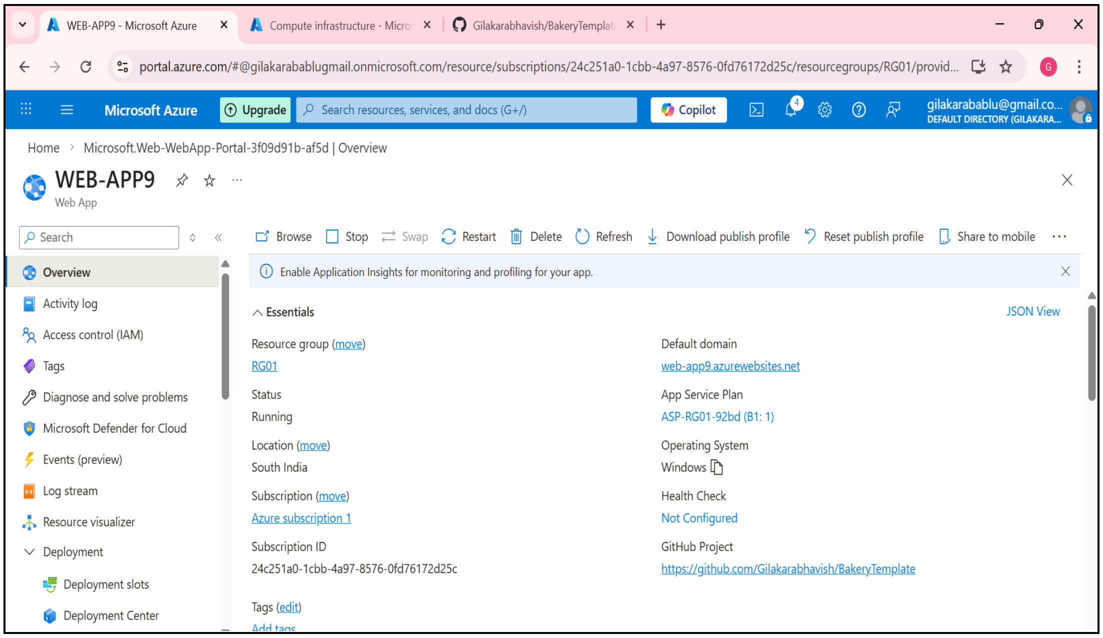
An App Service plan can be deployed as a zone redundant service in the regions that support it. This is a deployment time only decision. You can't make an App Service plan zone redundant after it has been deployed Learn more

Zone redundancy

○ **Enabled:** Your App Service plan and the apps in it will be zone redundant. The minimum App Service plan instance count will be three.

● **Disabled:** Your App Service Plan and the apps in it will not be zone redundant. The minimum App Service plan instance count will be one.

Fig (1) images while creating the webapp.


WEB-APP9 - Microsoft Azure
Compute infrastructure - Micro
Gilakarabhavish/BakeryTemplat
portal.azure.com/#@gilakarabablugmail.onmicrosoft.com/resource/subscriptions/24c251a0-1cbb-4a97-8576-0fd76172d25c/resourcegroups/RG01/provid...
Microsoft Azure
Upgrade
Search resources, services, and docs (G+/)
Copilot
gilakarababluigmail.co...
DEFAULT DIRECTORY (GILAKARA...
Home › Microsoft.Web-WebApp-Portal-3f09d91b-af5d | Overview
WEB-APP9
Web App
Search
Browse
Stop
Swap
Restart
Delete
Refresh
Download publish profile
Reset publish profile
Share to mobile
Overview
Activity log
Access control (IAM)
Tags
Diagnose and solve problems
Microsoft Defender for Cloud
Events (preview)
Log stream
Resource visualizer
Deployment
Deployment slots
Deployment Center
JSON View

Enable Application Insights for monitoring and profiling for your app.

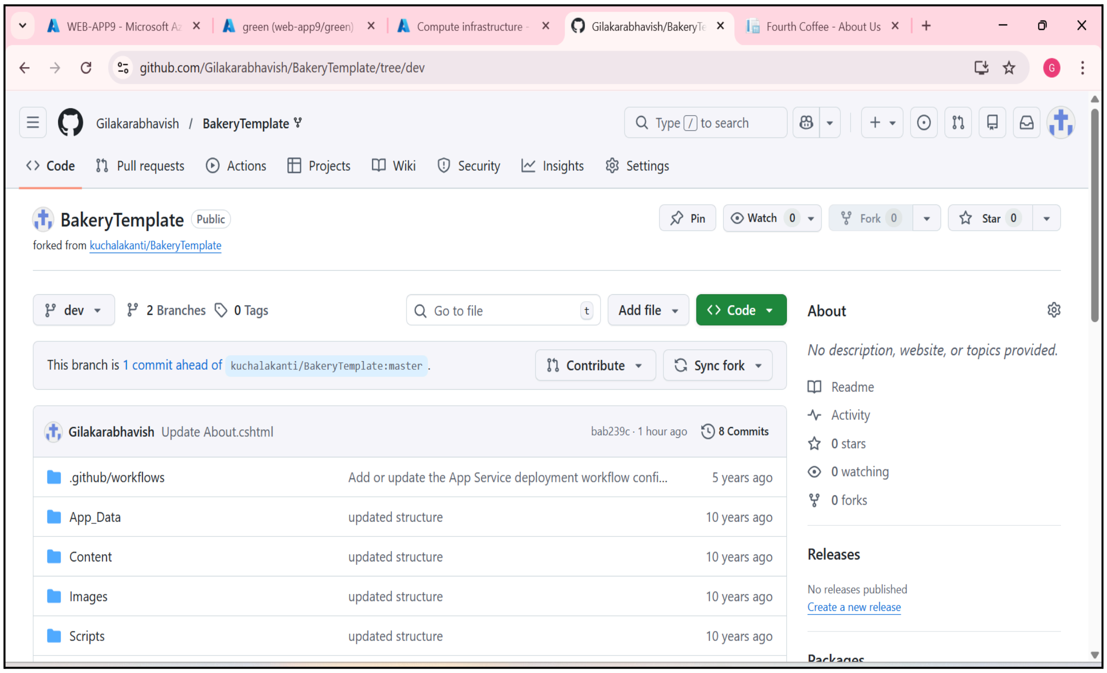
Essentials

Resource group (move) RG01	Default domain web-app9.azurewebsites.net
Status Running	App Service Plan ASP-RG01-92bd (B1: 1)
Location (move) South India	Operating System Windows
Subscription (move) Azure subscription 1	Health Check Not Configured
Subscription ID 24c251a0-1cbb-4a97-8576-0fd76172d25c	GitHub Project https://github.com/Gilakarabhavish/BakeryTemplate

Tags (edit)
Add tags

fig(2) Created a webapp successfully.

→ Now we have to deploy the code from the github to the webapp.



BakeryTemplate Public
forked from kuchalakanti/BakeryTemplate

This branch is 1 commit ahead of `kuchalakanti/BakeryTemplate:master` .

No description, website, or topics provided.

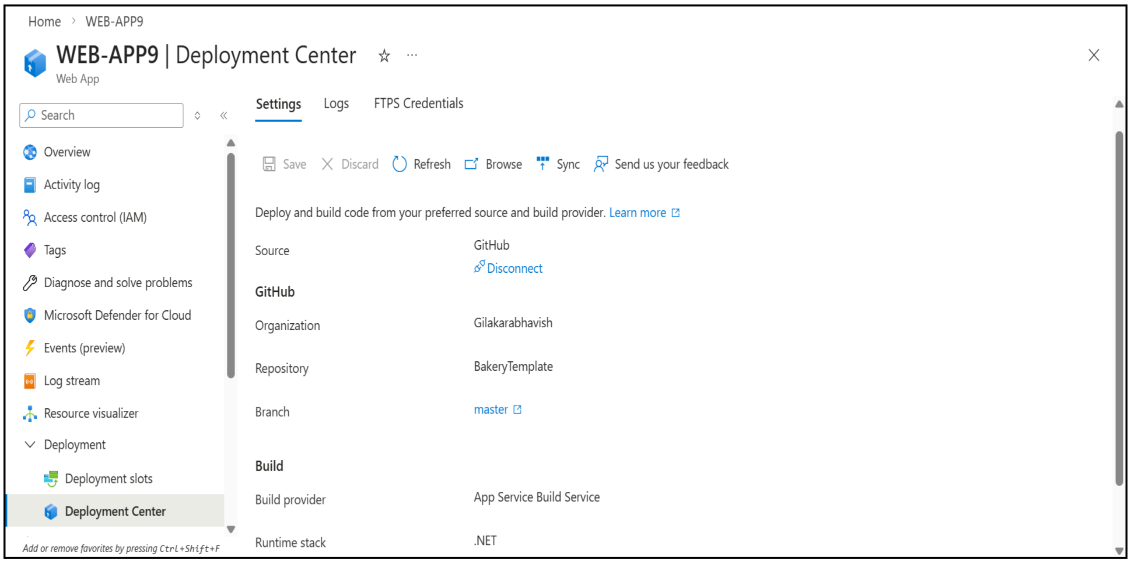
No releases published
Create a new release

Gilakarabhavish Update About.cshtml bab239c · 1 hour ago 8 Commits

.github/workflows	Add or update the App Service deployment workflow confi...	5 years ago
App_Data	updated structure	10 years ago
Content	updated structure	10 years ago
Images	updated structure	10 years ago
Scripts	updated structure	10 years ago

fig(3) The Bakery Template code in the github.

→This is the Bakery WebPage html code in Github. We need to deploy the code in the deployment center of the WebApp.

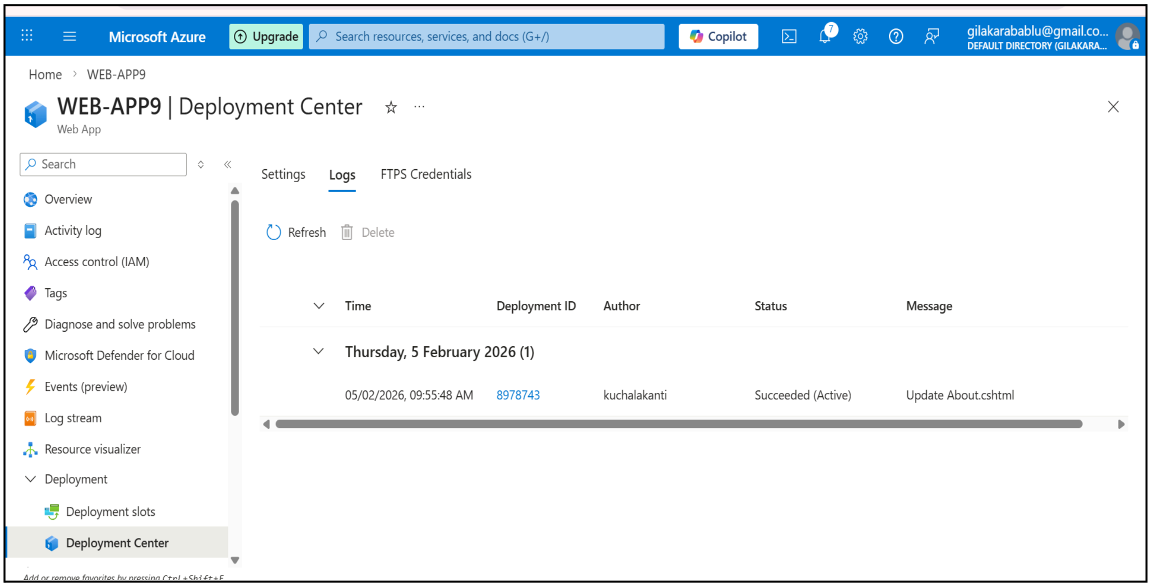


Deploy and build code from your preferred source and build provider. Learn more

Source	GitHub Disconnect
GitHub	
Organization	Gilakarabhavish
Repository	BakeryTemplate
Branch	master
Build	
Build provider	App Service Build Service
Runtime stack	.NET

fig(4) deployment center of webapp.

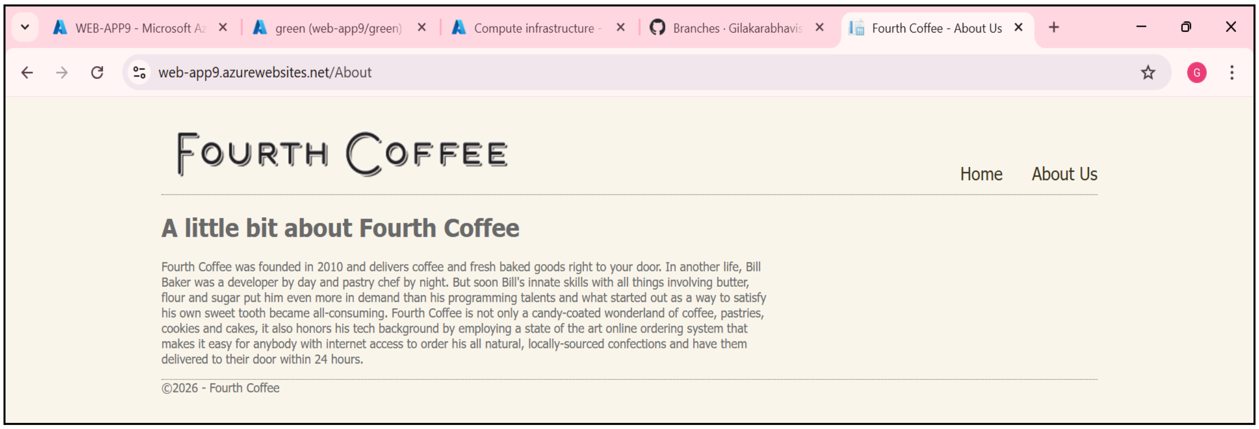
→ give the github path details and deploy the code.



Time	Deployment ID	Author	Status	Message
Thursday, 5 February 2026 (1)				
05/02/2026, 09:55:48 AM	8978743	kuchalakanti	Succeeded (Active)	Update About.cshtml

fig(4) successfully deployed the code in the deployment center.

→ Now if we search with the default domain name of the WebApp we get the Bakery-Coffee template page, i.e the code which is deployed in the WebApp deployment center.



FOURTH COFFEE

Home About Us

A little bit about Fourth Coffee

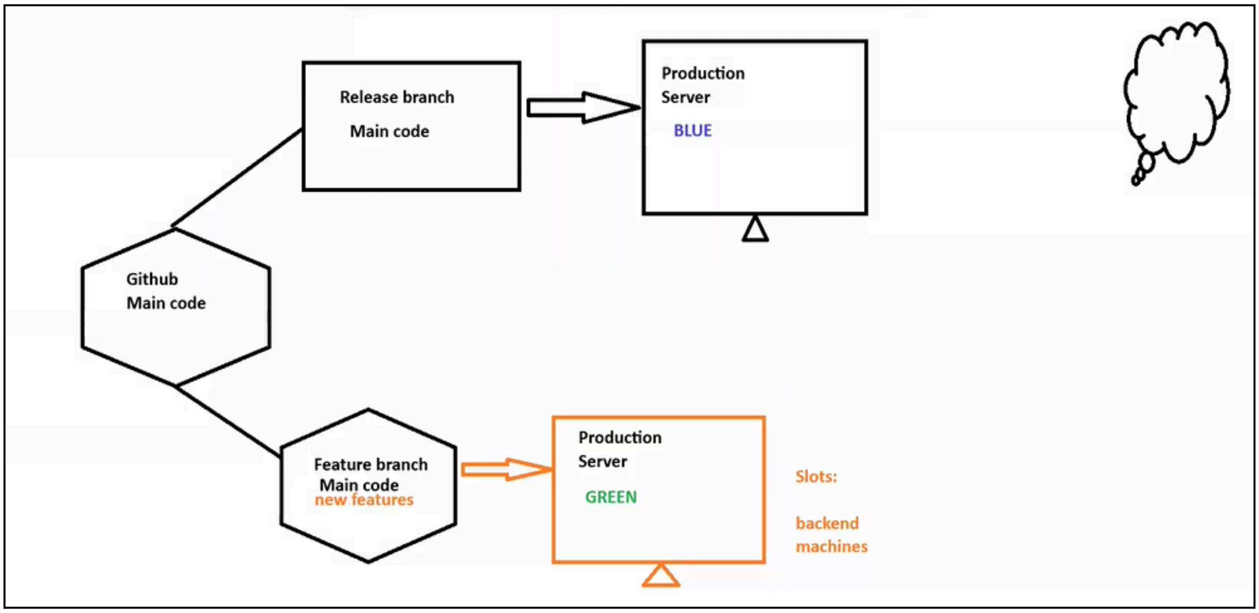
Fourth Coffee was founded in 2010 and delivers coffee and fresh baked goods right to your door. In another life, Bill Baker was a developer by day and pastry chef by night. But soon Bill's innate skills with all things involving butter, flour and sugar put him even more in demand than his programming talents and what started out as a way to satisfy his own sweet tooth became all-consuming. Fourth Coffee is not only a candy-coated wonderland of coffee, pastries, cookies and cakes, it also honors his tech background by employing a state of the art online ordering system that makes it easy for anybody with internet access to order his all natural, locally-sourced confections and have them delivered to their door within 24 hours.

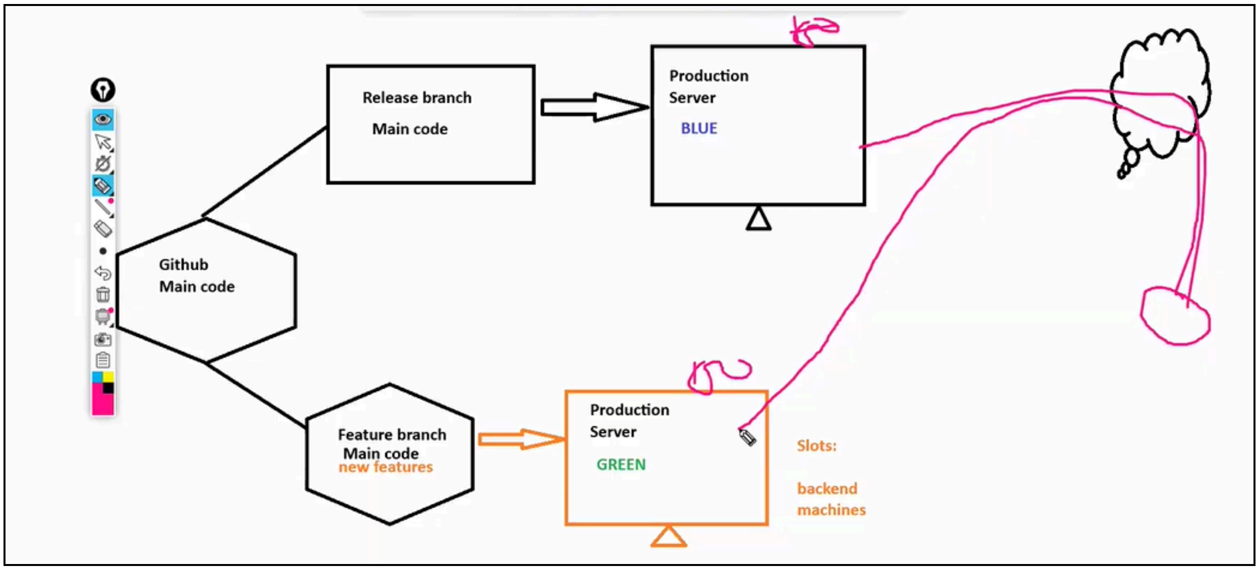
©2026 - Fourth Coffee

fig(5) the bakery-coffee template page .

→ Now here the webapp9 is the blue 🔵production server which is running live and all traffic is going to it.

→ Now the green 🟢new version is the updated version of the present running server i.e blue production server.

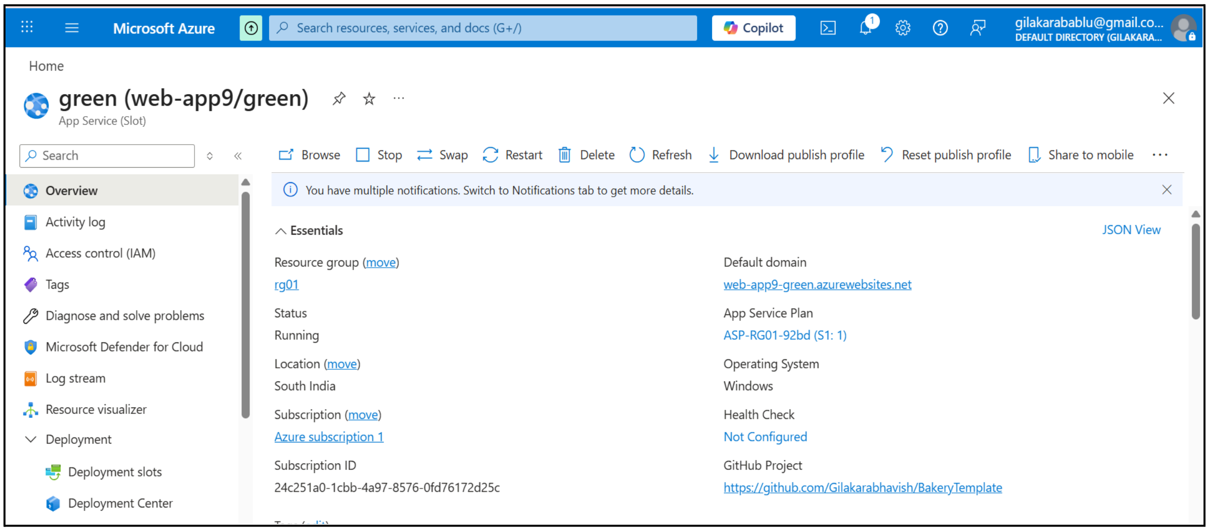




→ So when the green new version is deployed in the deployment slot and tested. If there is no issue then the green is swapped with blue production server(running server).

→ All the traffic will go to the new version ,the green becomes the new production server and all the users get access to the new version of the code.

→ Create a deployment slot - green new version in deployment center.



green (web-app9/green)

App Service (Slot)

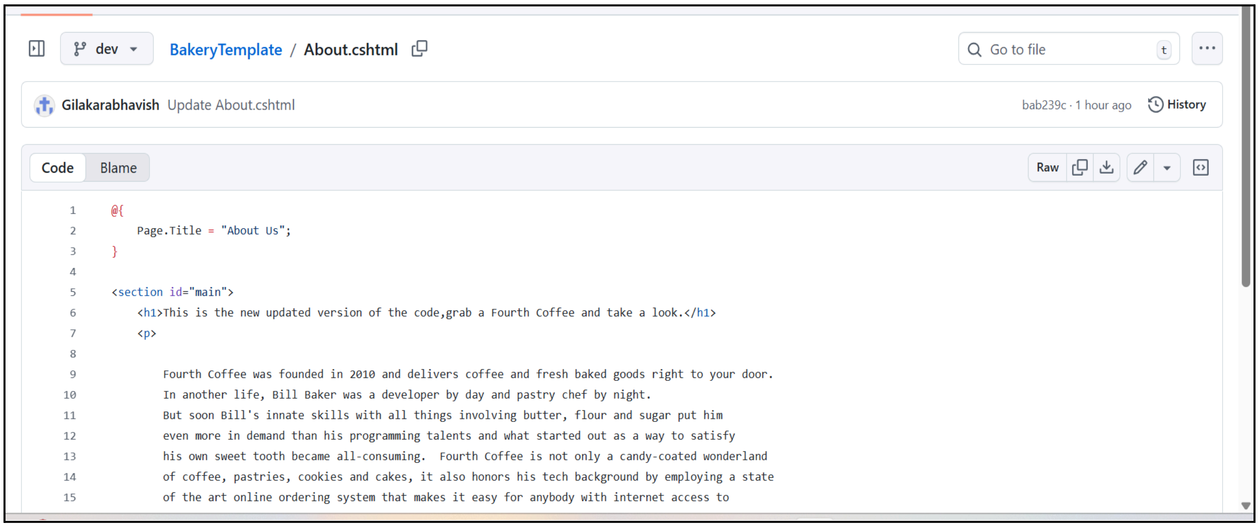
You have multiple notifications. Switch to Notifications tab to get more details.

Essentials

Resource group (move) rg01	Default domain web-app9-green.azurewebsites.net
Status Running	App Service Plan ASP-RG01-92bd (S1: 1)
Location (move) South India	Operating System Windows
Subscription (move) Azure subscription 1	Health Check Not Configured
Subscription ID 24c251a0-1cbb-4a97-8576-0fd76172d25c	GitHub Project https://github.com/Gilakarabhavish/BakeryTemplate

→ Now we have to update the code and deploy the new code in the green server. To do this we have to create a new feature branch from the main branch of the code.

→ Initially both the code will be the same but after making changes it becomes the new code.



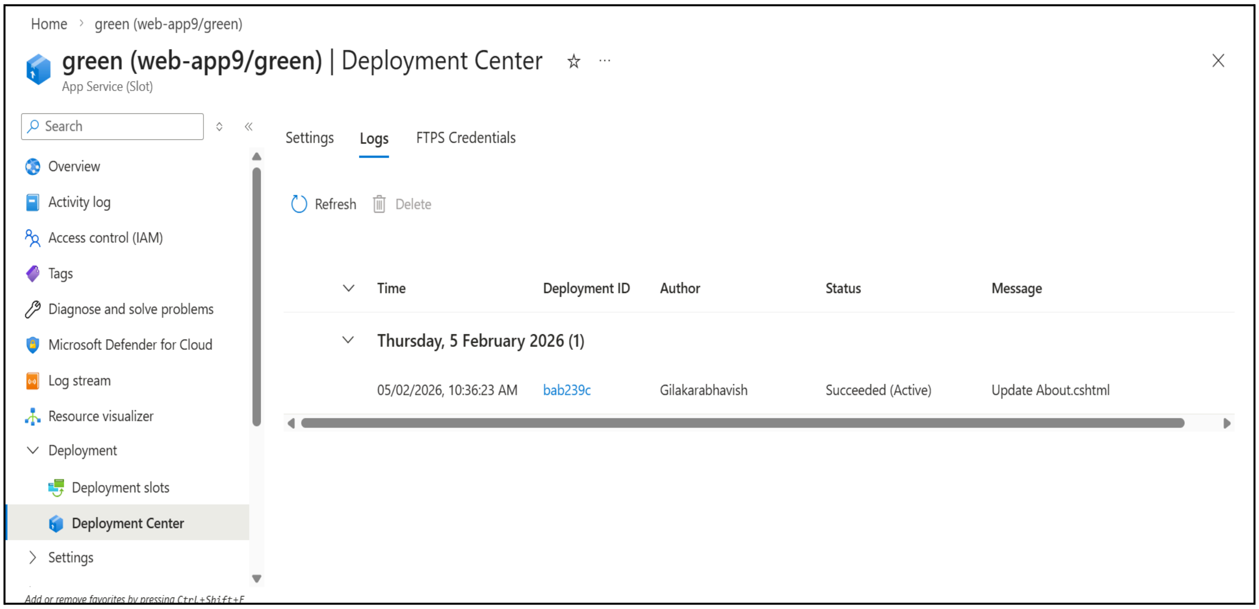
Gilakarabhavish Update About.cshtml bab239c · 1 hour ago

```
@{
    Page.Title = "About Us";
}

<section id="main">
    <h1>This is the new updated version of the code,grab a Fourth Coffee and take a look.</h1>
    <p>

        Fourth Coffee was founded in 2010 and delivers coffee and fresh baked goods right to your door.
        In another life, Bill Baker was a developer by day and pastry chef by night.
        But soon Bill's innate skills with all things involving butter, flour and sugar put him
        even more in demand than his programming talents and what started out as a way to satisfy
        his own sweet tooth became all-consuming.  Fourth Coffee is not only a candy-coated wonderland
        of coffee, pastries, cookies and cakes, it also honors his tech background by employing a state
        of the art online ordering system that makes it easy for anybody with internet access to
```

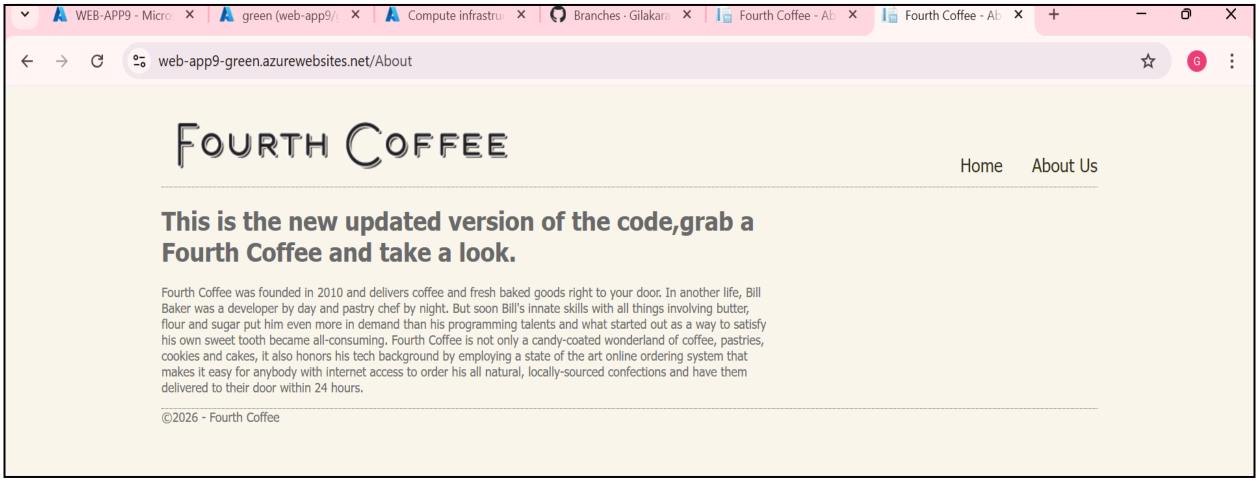
fig(7) new feature branch code {dev} is created.



Time	Deployment ID	Author	Status	Message
Thursday, 5 February 2026 (1)				
05/02/2026, 10:36:23 AM	bab239c	Gilakarabhavish	Succeeded (Active)	Update About.cshtml

fig(8) the dev code is deployed in the deployment slot {green}.

→ Now when we browse with the green's domain name, we get the upgraded version of the code.



web-app9-green.azurewebsites.net/About

FOURTH COFFEE

Home About Us

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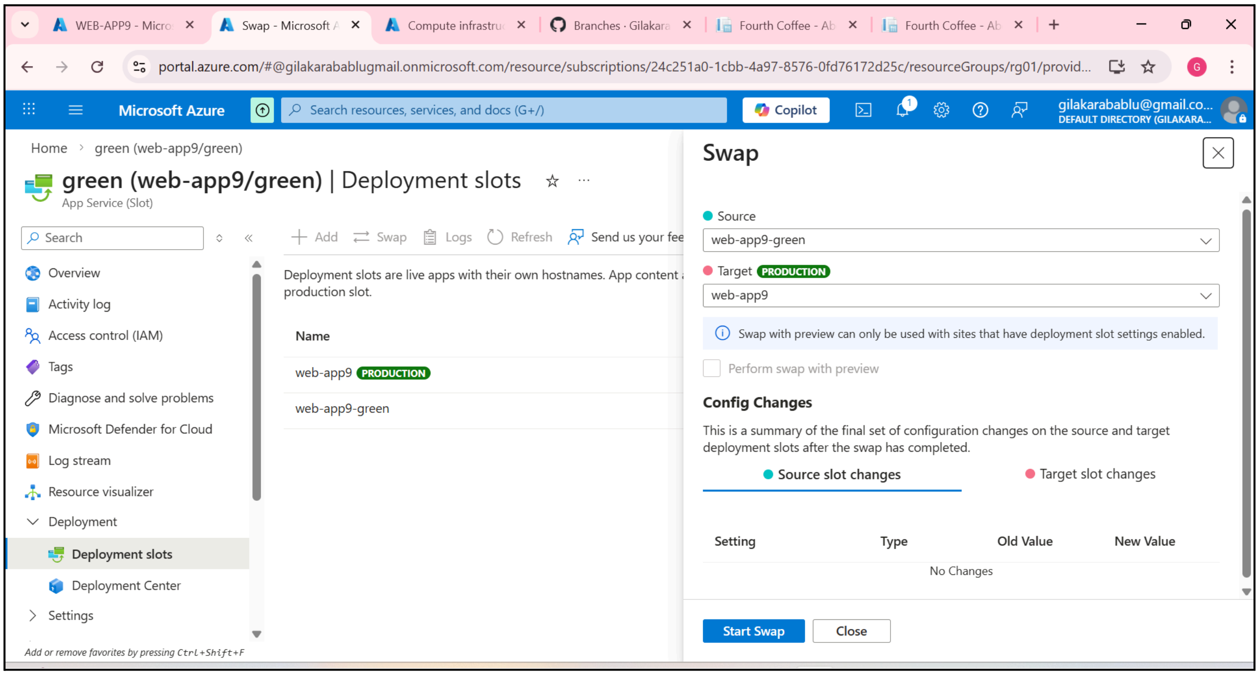
fig(9) the new upgraded version of the code.

→ Now let's swap the blue (running server) and the green (dev code).



portal.azure.com/#@gilakarababablugmail.onmicrosoft.com/resource/subscriptions/24c251a0-1cbb-4a97-8576-0fd76172d25c/resourceGroups/rg01/provid...

Home > green (web-app9/green)

green (web-app9/green) | Deployment slots

App Service (Slot)

Deployment slots are live apps with their own hostnames. App content a production slot.

Name
web-app9 PRODUCTION
web-app9-green

Swap

Source: web-app9-green

Target PRODUCTION: web-app9

Swap with preview can only be used with sites that have deployment slot settings enabled.

☐ Perform swap with preview

Config Changes

This is a summary of the final set of configuration changes on the source and target deployment slots after the swap has completed.

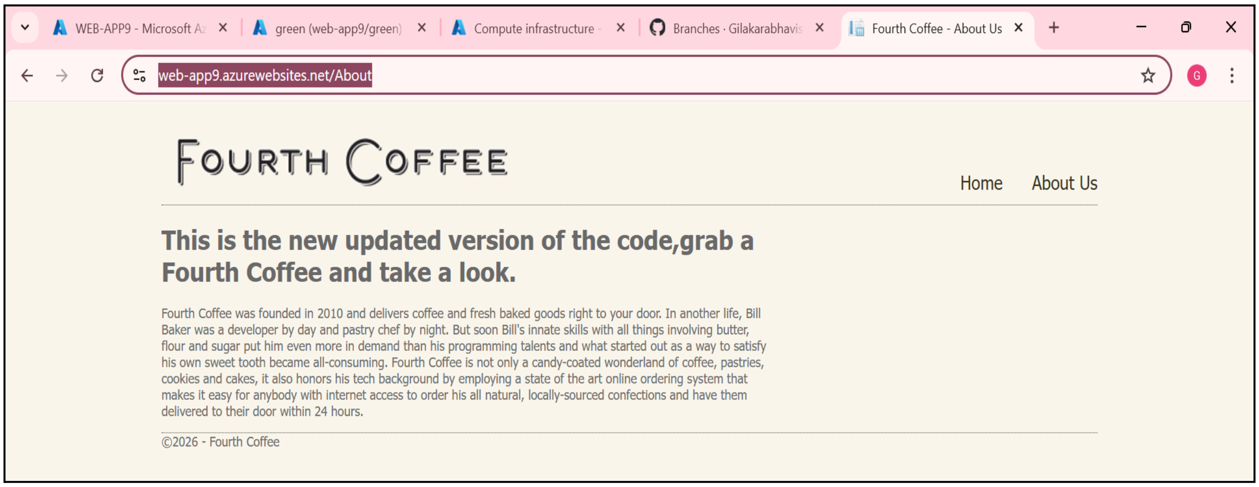
Source slot changes | Target slot changes

Setting	Type	Old Value	New Value
No Changes			

Start Swap | Close

fig(10) swapping the blue and green server.

→ Now the swapping is completed and if we browse the WebApp domain name we get the upgraded version of the code. And all the traffic will go to the new version of the code.



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fig(11) the upgraded version is live and all users can now get access.

→ Like this the green & blue deployment strategy is used. If there are some issues in the green we can again rollback to the old version (blue).

Conclusion:

Azure Web App Service enables reliable and scalable application hosting in the cloud. By using Blue-Green deployment strategy with deployment slots, applications can be updated with minimal downtime and reduced risk, ensuring smooth releases and quick rollback if needed.