



Compte rendu TP5

Web app, Function app and Logic app

RT4 _ Groupe 1



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A Task 1 : Azure web app

1-

The screenshot shows the 'Create Web App' wizard in the Microsoft Azure portal. The 'Basics' tab is selected. The 'Project Details' section shows a subscription of 'Azure for Students' and a resource group of '(New) rgwebapp'. The 'Instance Details' section shows a name 'testinsat' and a '.azurewebsites.net' suffix. The 'Publish' section shows 'Code' selected. At the bottom are 'Review + create' and 'Next : Deployment >' buttons.

The screenshot shows the 'Create Web App' wizard in the Microsoft Azure portal. The 'Deployment' step is shown. The 'Runtime stack' is set to 'PHP 8.2', 'Operating System' to 'Linux', and 'Region' to 'North Europe'. A note says 'Not finding your App Service Plan? Try a different region or select your App Service Environment.' The 'Pricing plans' section shows a Linux Plan (North Europe) of '(New) ASP-rgwebapp-9535' and a Pricing plan of 'Basic B1 (100 total ACU, 1.75 GB memory, 1 vCPU)'. At the bottom are 'Review + create', '< Previous', and 'Next : Deployment >' buttons.

Microsoft Azure Search resources, services, and docs (G+) Home > Microsoft.Web-WebApp-Portal-b1c49ec7-baf2 | Overview Deployment

Deployment name: Microsoft.Web-WebApp-Portal-b1c... Start time: 4/27/2023, 9:00:16 PM
Subscription: Azure for Students Correlation ID: 0a213d39-2100-4297-8565-8083efb48:
Resource group: rgwebapp

Your deployment is complete

Deployment details

Manage deployments for your app. Recommended
Protect your app with authentication. Recommended

Go to resource

Give feedback

Tell us about your experience with deployment

Deployment succeeded
Deployment 'Microsoft.Web-WebApp-Portal-b1c49ec7-baf2' to resource group 'rgwebapp' was successful.

Cost Management
Get notified to stay within your budget and prevent unexpected charges on your bill.
Set up cost alerts >

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Azure experts are service provider partners who can help manage your assets on Azure

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Microsoft Azure Search resources, services, and docs (G+) Home > Microsoft.Web-WebApp-Portal-b1c49ec7-baf2 | Overview > testinsat | Deployment slots > Spec Picker

Dev / Test For less demanding workloads

Production For most production workloads

Isolated Advanced networking and scale

Recommended pricing tiers

F1 1 GB memory
60 minutes/day compute
Free

B1 100 total ACU
1.75 GB memory
A-Series compute equivalent
13.14 USD/Month (Estimated)

See additional options

Included hardware

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

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Microsoft Azure Search resources, services, and docs (G+)

Home > Microsoft.Web-WebApp-Portal-b1c49ec7-baf2 | Overview > testinsat | Deployment slots >

Spec Picker ...

Dev / Test For less demanding workloads

Production For most production workloads

Isolated Advanced networking and scale

Updating App Service Plan
Updating the plan ASP-rgwebapp-9535

Recommended pricing tiers

F1	1 GB memory 60 minutes/day compute Free	B1	100 total ACU 1.75 GB memory A-Series compute equivalent 13.14 USD/Month (Estimated)
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[See additional options](#)

Included features

Every app hosted on this App Service plan will have access to these features:

Custom domains / SSL Configure and purchase custom domains with SNI SSL bindings
Manual scale Up to 3 instances. Subject to availability.

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 per instance available to run applications deployed and running in the App Service plan.

Microsoft Azure Search resources, services, and docs (G+)

Home > Microsoft.Web-WebApp-Portal-b1c49ec7-baf2 | Overview > testinsat | Deployment slots >

Spec Picker ...

Dev / Test For less demanding workloads

Production For most production workloads

Isolated Advanced networking and scale

Updating App Service Plan
Updating the plan ASP-rgwebapp-9535

Recommended pricing tiers

P1V2 210 total ACU 3.5 GB memory Dv2-Series compute equivalent 81.03 USD/Month (Estimated)	P2V2 420 total ACU 7 GB memory Dv2-Series compute equivalent 161.33 USD/Month (Estimated)	P3V2 840 total ACU 14 GB memory Dv2-Series compute equivalent 322.66 USD/Month (Estimated)	P1V3 195 minimum ACU/vCPU 8 GB memory 2 vCPU 122.64 USD/Month (Estimated)
P2V3 195 minimum ACU/vCPU 16 GB memory 4 vCPU 245.28 USD/Month (Estimated)	P3V3 195 minimum ACU/vCPU 32 GB memory 8 vCPU 490.56 USD/Month (Estimated)		

[See additional options](#)

Included features

Every app hosted on this App Service plan will have access to these features:

Custom domains / SSL

Included hardware

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

Azure Compute Units (ACU)

Microsoft Azure Search resources, services, and docs (G+)

Home > Microsoft.Web-WebApp-Portal-b1c49ec7-baf2 | Overview > testinsat

testinsat | Deployment slots

Web App

Search Save Discard Add Slot Swap Logs Refresh

You haven't added any deployment slots. Click here to get started.

Deployment Slots

Deployment slots are live apps with their own hostnames. App content and configurations elements can be swapped between two deployment slots, including the production slot.

NAME	STATUS	APP SERVICE PLAN	TRAFFIC %
testinsat PRODUCTION	Running	ASP-rgwebapp-9535	100

Overview Activity log Access control (IAM) Tags Diagnose and solve problems Microsoft Defender for Cloud Events (preview)

Deployment Deployment slots Deployment Center

Settings Configuration Authentication Application Insights Identity

Microsoft Azure Search resources, services, and docs (G+)

Home > Microsoft.Web-WebApp-Portal-b1c49ec7-baf2 | Overview > testinsat

testinsat | Deployment slots

Web App

Search Save Discard Add Slot Swap Logs Refresh

Add a slot

Name: staging testinsat-staging.azurewebsites.net

Clone settings from: Do not clone settings

Deployment Slots

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

NAME	STATUS
testinsat PRODUCTION	Running

Add Close

Overview Activity log Access control (IAM) Tags Diagnose and solve problems Microsoft Defender for Cloud Events (preview)

Deployment Deployment slots Deployment Center

Settings Configuration Authentication Application Insights Identity

Microsoft Azure Search resources, services, and docs (G+/-)

Home > Microsoft.Web-WebApp-Portal-b1c49ec7-baf2 | Overview > testinsat

testinsat | Deployment slots

Web App

Deployment slots

Search Save Discard Add Slot Swap Logs Refresh

Overview Activity log Access control (IAM) Tags Diagnose and solve problems Microsoft Defender for Cloud Events (preview) Deployment Deployment slots Deployment Center

Deployment Slots

Deployment slots are live apps with their own hostnames. App content and configurations elements can be swapped between two deployment slots, including the production slot.

NAME	STATUS	APP SERVICE PLAN	TRAFFIC %
testinsat PRODUCTION	Running	ASP-rgwebapp-9535	100
testinsat-staging	Running	ASP-rgwebapp-9535	0

https://portal.azure.com/?Microsoft_Azure_Education_correlationId=26d4284c8bd849fd998b5295c25034&Microsoft_Azure_Education_newA4E=true&Microsoft_Azure_Education_asoSubGuid=85030eba-08e4-4093-ab86-fa81b9f..

Microsoft Azure Search resources, services, and docs (G+/-)

Home > Microsoft.Web-WebApp-Portal-b1c49ec7-baf2 | Overview > testinsat | Deployment slots > staging (testinsat/staging)

staging (testinsat/staging)

App Service (Slot)

Search Browse Stop Swap Restart Delete Refresh Download publish profile Reset publish profile Share to mobile ...

Overview Activity log Access control (IAM) Tags Microsoft Defender for Cloud Deployment Deployment Center

Configuration Authentication Application Insights

Essentials

Resource group (move) : rgwebapp Default domain : testinsat-staging.azurewebsites.net
Status : Running App Service Plan : ASP-rgwebapp-9535
Location (move) : North Europe Operating System : Linux
Subscription (move) : Azure for Students
Subscription ID : 85030eba-08e4-4093-ab86-fa81b9f39a8b

Tags (edit) : Click here to add tags

Properties Monitoring Logs Capabilities Notifications Recommendations

Web app

Name	testinsat/staging
Publishing model	Code
Runtime Stack	PHP - 8.2

Domains

Default domain	testinsat-staging.azurewebsites.net
----------------	-------------------------------------

Votre application web est en cours d'exécution et attend votre contenu

Votre application web est en ligne, mais nous n'avons pas encore votre contenu. Si vous avez déjà déployé, l'affichage de votre contenu peut prendre jusqu'à 5 minutes. Revenez bientôt.



 Prise en charge de Node.js, Java, .NET, etc.

Vous n'avez pas encore déployé ?

Utilisez le centre de déploiement pour publier du code ou configurer le déploiement continu.

[Centre de déploiement](#)

Vous démarrez un nouveau site web ?

Suivez notre guide de démarrage rapide pour préparer rapidement une application web.

[Démarrage rapide](#)

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Microsoft Azure | Search resources, services, and docs (G+)

Home > Microsoft.Web-WebApp-Portal-b1c49ec7-baf2 | Overview > testinsat | Deployment slots > staging (testinsat/staging)

staging (testinsat/staging) | Deployment Center

App Service (Slot)

Search Save Discard Browse Manage publish profile Sync Leave Feedback

- Overview
- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems
- Microsoft Defender for Cloud
- Events (preview)
- Deployment**
- Deployment slots
- Deployment Center**
- Settings
- Configuration
- Authentication
- Application Insights
- Identity

Settings Logs Local Git/FTP credentials

Deploy and build code from your preferred source and build provider. [Learn more](#)

Source Local Git [Disconnect](#)

Local Git

Git Clone Uri <https://testinsat-staging.scm.azurewebsites.net:443/testinsat.git>

Build

Build provider App Service Build Service

Runtime stack PHP

Version PHP 8.2

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Microsoft Azure | Search resources, services, and docs (G+)

Home > Microsoft.Web-WebApp-Portal-b1c49ec7-baf2 | Overview > testinsat | Deployment slots > staging (testinsat/staging)

staging (testinsat/staging) | Deployment Center

App Service (Slot)

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- Overview
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- Events (preview)
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- Deployment slots
- Deployment Center**
- Settings
- Configuration
- Authentication
- Application Insights
- Identity

Application scope credentials are auto-generated and provide access only to this specific app or deployment slot. These credentials can be used with FTPS, Local Git and WebDeploy. They cannot be configured manually, but can be reset anytime. [Learn more](#)

FTPS Username testinsat_staging\\${testinsat_staging}

Local Git Username \${testinsat_staging}

Password [Reset](#)

User scope

User scope credentials are defined by you, the user, and can be used with all the apps to which you have access. These credentials can be used with FTPS, Local Git and WebDeploy. Authenticating to an FTPS endpoint using user-level credentials requires a username in the following format: 'testinsat-staging\\${your username}'. Authenticating with Git requires only the username '{your username}' defined below. [Learn more](#)

Username mouhib

Password [Reset](#)

Confirm Password

8

8

4- ;hg

The screenshot shows the Microsoft Azure portal interface for managing deployment slots. At the top, there's a navigation bar with 'Microsoft Azure' and a search bar. Below it, the main content area has a title 'staging (testinsat/staging) | Deployment slots'. On the left, a sidebar lists options like Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, and Microsoft Defender for Cloud. The main panel is titled 'Deployment Slots' and contains a sub-section about live apps with their own hostnames. A table lists deployment slots by Name, Status, App Service Plan, and Traffic %. Below the table is a PowerShell window showing command-line output for cloning a GitHub repository and setting its location. Another PowerShell window further down shows the execution of a git remote add command to a specific Azure repository URL.

```
MOTD: Azure Cloud Shell now includes Predictive IntelliSense! Learn more: https://aka.ms/CloudShell/IntelliSense  
VERBOSE: Authenticating to Azure ...  
VERBOSE: Building your Azure drive ...  
PS /home/mouhibbenjemaa> git clone https://github.com/Azure-Samples/php-docs-hello-world  
Cloning into 'php-docs-hello-world'...  
remote: Enumerating objects: 26, done.  
remote: Total 26 (delta 0), reused 0 (delta 0), pack-reused 26  
Receiving objects: 100% (26/26), 5.64 KiB | 1.13 MiB/s, done.  
Resolving deltas: 100% (6/6), done.  
PS /home/mouhibbenjemaa>  
PowerShell
```

```
VERBOSE: Authenticating to Azure ...  
VERBOSE: Building your Azure drive ...  
PS /home/mouhibbenjemaa> git clone https://github.com/Azure-Samples/php-docs-hello-world  
Cloning into 'php-docs-hello-world'...  
remote: Enumerating objects: 26, done.  
remote: Total 26 (delta 0), reused 0 (delta 0), pack-reused 26  
Receiving objects: 100% (26/26), 5.64 KiB | 1.13 MiB/s, done.  
Resolving deltas: 100% (6/6), done.  
PS /home/mouhibbenjemaa> Set-Location -Path $HOME/php-docs-hello-world/  
PowerShell
```

```
PS /home/mouhibbenjemaa/php-docs-hello-world> git remote add mouhib https://testinsat-staging.scm.azurewebsites.net:443/testinsat.git  
PS /home/mouhibbenjemaa/php-docs-hello-world> git push mouhib master  
Username for 'https://testinsat-staging.scm.azurewebsites.net:443': mouhib  
Password for 'https://mouhib@testinsat-staging.scm.azurewebsites.net:443':  
Enumerating objects: 26, done.  
Counting objects: 100% (26/26), done.  
Delta compression using up to 2 threads  
Compressing objects: 100% (17/17), done.  
Writing objects: 100% (26/26), 5.64 KiB | 5.64 MiB/s, done.  
Total 26 (delta 6), reused 26 (delta 6), pack-reused 0  
remote: Deploy Async  
remote: Updating branch 'master'.  
remote: Updating submodules.  
remote: Preparing deployment for commit id 'df425ea6ef'.  
remote: PreDeployment: context.CleanOutputPath False  
remote: PreDeployment: context.OutputPath /home/site/wwwroot  
remote: Repository path is /home/site/repository  
remote: Running oryx build...  
remote: Operation performed by Microsoft Oryx, https://github.com/Microsoft/Oryx  
remote: You can report issues at https://github.com/Microsoft/Oryx/issues  
remote:  
remote: Oryx Version: 0.2.20230210.1, Commit: a49c8f6b8abbe95b4356552c4c884dea7fd0d86e, ReleaseTagName: 20230210.1  
remote:  
remote: Build Operation ID: 82e317852dcda26d  
remote: Repository Commit : df425ea6ef61f981c71537ec89d1d821a2de975c  
remote: OS Type : bullseye  
remote: Image Type : githubactions  
remote:
```

```
Microsoft Azure Search resources, services, and docs (G+) PowerShell | ⌂ ? ⓘ ⓘ ⓘ ⓘ ⓘ ⓘ ⓘ ⓘ ⓘ ⓘ Terminal container button  
remote:  
remote: Detecting platforms...  
remote: Detected following platforms:  
remote:   php: 8.2.5  
remote: Version '8.2.5' of platform 'php' is not installed. Generating script to install it...  
remote:  
remote: Using intermediate directory '/tmp/8db475db60f7a97'.  
remote:  
remote: Copying files to the intermediate directory...  
remote: Done in 0 sec(s).  
remote:  
remote: Source directory      : /tmp/8db475db60f7a97  
remote: Destination directory: /home/site/wwwroot  
remote:  
remote: Downloading and extracting 'php' version '8.2.5' to '/tmp/oryx/platforms/php/8.2.5'...  
remote: Detected image debian flavor: bullseye.  
remote: Downloaded in 3 sec(s).  
remote: Verifying checksum...  
remote: Extracting contents...  
remote: performing sha512 checksum for: php...  
remote: Done in 4 sec(s).  
remote:  
remote: Downloading and extracting 'php-composer' version '2.0.8' to '/tmp/oryx/platforms/php-composer/2.0.8'...  
remote: Detected image debian flavor: bullseye.  
remote: Downloaded in 0 sec(s).  
remote: Verifying checksum...
```

```
Microsoft Azure Search resources, services, and docs (G+) PowerShell | ⌂ ? ⓘ ⓘ ⓘ ⓘ ⓘ ⓘ ⓘ ⓘ ⓘ Terminal container button  
remote: Extracting contents...  
remote: performing sha512 checksum for: php-composer...  
remote: Done in 0 sec(s).  
remote:  
remote: PHP executable: /tmp/oryx/platforms/php/8.2.5/bin/php  
remote: No 'composer.json' file found; not running 'composer install'.  
remote: Preparing output...  
remote:  
remote: Copying files to destination directory '/home/site/wwwroot'...  
remote: Done in 0 sec(s).  
remote:  
remote: Removing existing manifest file  
remote: Creating a manifest file...  
remote: Manifest file created.  
remote: Copying .ostype to manifest output directory.  
remote:  
remote: Done in 5 sec(s).  
remote: Running post deployment command(s)...  
remote:  
remote: Generating summary of Oryx build  
remote: Parsing the build logs  
remote: Found 0 issue(s)  
remote:  
remote: Build Summary :  
remote: ======  
remote: Errors (0)  
remote: Warnings (0)  
remote:
```

```

remote: Copying files to destination directory '/home/site/wwwroot'...
remote: Done in 0 sec(s).
remote:
remote: Removing existing manifest file
remote: Creating a manifest file...
remote: Manifest file created.
remote: Copying .ostype to manifest output directory.
remote:
remote: Done in 5 sec(s).
remote: Running post deployment command(s)...
remote:
remote: Generating summary of Oryx build
remote: Parsing the build logs
remote: Found 0 issue(s)
remote:
remote: Build Summary :
remote: =====
remote: Errors (0)
remote: Warnings (0)
remote:
remote: Triggering recycle (preview mode disabled).
remote: Deployment successful. deployer = deploymentPath =
remote: Deployment Logs : 'https://testinsat-staging.scm.azurewebsites.net/newui/jsonviewer?view_url=/api/deployments/df425ea6ef61f981c71537ec89d1d821a2de975c/log'
To https://testinsat-staging.scm.azurewebsites.net:443/testinsat.git
 * [new branch]      master -> master
PS /home/mouhibbenjemaa/php-docs-hello-world>

```

5-

staging (testinsat/staging) | Deployment slots

Deployment Slots

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

NAME	STATUS
testinsat PRODUCTION	Running
testinsat-staging	Running

Swap

Source: testinsat-staging

Target: PRODUCTION testinsat

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 Changes		Target Changes	
SETTING	TYPE	OLD VALUE	NEW VALUE
No Changes			

Swap Close

Microsoft Azure Search resources, services, and docs (G+)

Home > staging (testinsat/staging)

staging (testinsat/staging) | Deployment slots

App Service (Slot)

Search Add Slot Swap Logs Refresh

Overview Activity log Access control (IAM) Tags Diagnose and solve problems Microsoft Defender for Cloud Events (preview)

Deployment

- Deployment slots (selected)
- Deployment Center

Settings

- Configuration
- Authentication
- Application Insights
- Identity

Deployment Slots

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

NAME	STATUS

Swap

Source: testinsat-staging

Target: PRODUCTION testinsat

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 Changes		Target Changes	
SETTING	TYPE	OLD VALUE	NEW VALUE
No Changes			

Successfully completed swap between slot 'staging' and slot 'production'

Swap Close

testinsat-staging.azurewebsites.net Microsoft Azure

Votre application web est en cours d'exécution et attend votre contenu

Votre application web est en ligne, mais nous n'avons pas encore votre contenu. Si vous avez déjà déployé, l'affichage de votre contenu peut prendre jusqu'à 5 minutes. Revenez bientôt.



 Prise en charge de Node.js, Java, .NET, etc.

Vous n'avez pas encore déployé ? Utilisez le centre de déploiement pour publier du code ou configurer le déploiement continu.

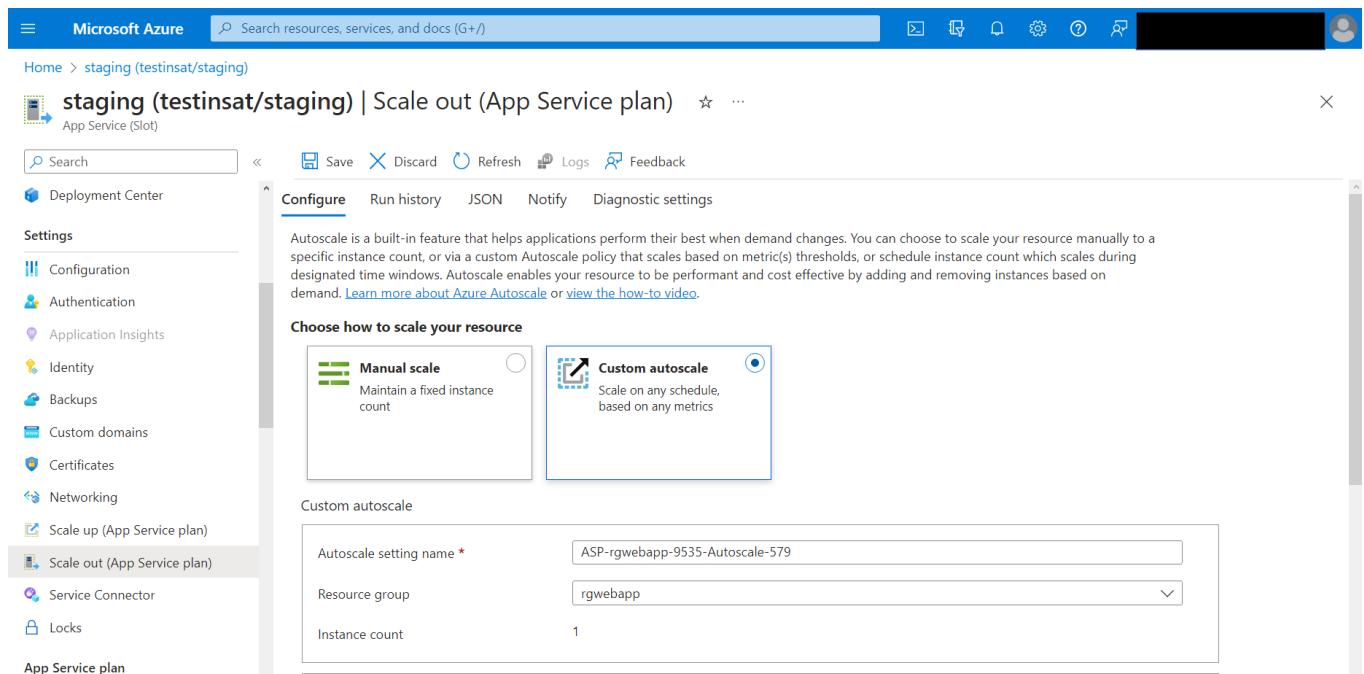
[Centre de déploiement](#)

Vous démarrez un nouveau site web ? Suivez notre guide de démarrage rapide pour préparer rapidement une application web.

[Démarrage rapide](#)

Hello World!

6-

A screenshot of the Microsoft Azure portal. The URL in the address bar is 'staging (testinsat/staging) | Scale out (App Service plan)'. The left sidebar shows 'Deployment Center' and 'Settings' sections. Under 'Settings', 'Scale out (App Service plan)' is selected. The main content area shows the 'Configure' tab selected. It explains Autoscale and offers two options: 'Manual scale' (radio button off) and 'Custom autoscale' (radio button on). Below this, the 'Custom autoscale' section is expanded, showing fields for 'Autoscale setting name' (set to 'ASP-rgwebapp-9535-Autoscale-579'), 'Resource group' (set to 'rgwebapp'), and 'Instance count' (set to '1').

Microsoft Azure Search resources, services, and docs (G+/)

Home > staging (testinsat/staging)

staging (testinsat/staging) | Scale out (App Service plan)

App Service (Slot)

Search Save Discard Refresh Logs Feedback

Configure Run history JSON Notify Diagnostic settings

Autoscale is a built-in feature that helps applications perform their best when demand changes. You can choose to scale your resource manually to a specific instance count, or via a custom Autoscale policy that scales based on metric(s) thresholds, or schedule instance count which scales during designated time windows. Autoscale enables your resource to be performant and cost effective by adding and removing instances based on demand. [Learn more about Azure Autoscale](#) or [view the how-to video](#).

Choose how to scale your resource

Manual scale

Maintain a fixed instance count

Custom autoscale

Scale on any schedule, based on any metrics

Custom autoscale

Autoscale setting name *

ASP-rgwebapp-9535-Autoscale-579

Resource group

rgwebapp

Instance count

1

Microsoft Azure Search resources, services, and docs (G+/-)

Home > staging (testinsat/staging)

staging (testinsat/staging) | Scale out (App Service plan)

App Service (Slot)

Save Discard Refresh Logs Feedback

Instance count 1

Default* Auto created default scale condition

Delete warning The very last or default recurrence rule cannot be deleted. Instead, you can disable autoscale to turn off autoscale.

Scale mode Scale based on a metric Scale to a specific instance count

Rules Scale is based on metric trigger rules but no rule(s) is defined; click Add a rule to create a rule. For example: 'Add a rule that increases instance count by 1 when CPU Percentage is above 70%; If no rules is defined, the resource will be set to default instance count.'

Instance limits Minimum * 1 Maximum * 1 Default * 1

Schedule This scale condition is executed when none of the other scale condition(s) match

+ Add a scale condition

Microsoft Azure Search resources, services, and docs (G+/-)

Home > staging (testinsat/staging)

staging (testinsat/staging) | Scale out (App Service plan)

App Service (Slot)

Save Discard Refresh Logs Feedback

Instance count 1

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Instance limits Minimum * 1 Maximum * 1 Default * 1

Schedule This scale condition is executed when none of the other scale condition(s) match

+ Add a scale condition

Scale rule

Metric source Current resource (ASP-rgwebapp-9535)

Resource type Resource App Service plans ASP-rgwebapp-9535

Criteria

Metric namespace * Standard metrics Metric name CPU Percentage 1 minute time grain

Dimension Name Operator Dimension Values Add

Instance = All values +

If you select multiple values for a dimension, autoscale will aggregate the metric across the selected values, not evaluate the metric for each values individually.

10%
8%
6%

9:43 PM 30 45 UTC+01:00

Add

Microsoft Azure Search resources, services, and docs (G+)

Home > staging (testinsat/staging)

staging (testinsat/staging) | Scale out (App Service plan)

App Service (Slot)

Save Discard Refresh Logs Feedback

Instance count 1

Default* Auto created default scale condition

Delete warning The very last or default recurrence rule cannot be deleted. Instead, you can disable autoscale to turn off autoscale.

Scale mode Scale based on a metric

Rules Scale is based on metric trigger example: 'Add a rule that inc rules is defined, the resource'

Instance limits Minimum * 1

Schedule This scale condition is executed

CpuPercentage (Maximum) 7 %

Enable metric divide by instance count

Operator * Greater than Metric threshold to trigger scale action * 10

Duration (minutes) * 1 Time grain (minutes) * 1

Time grain statistic * Maximum Time aggregation * Maximum

Action Operation * Increase count by Cool down (minutes) * 5

instance count * 1

Add

Microsoft Azure Search resources, services, and docs (G+)

Home > staging (testinsat/staging)

staging (testinsat/staging) | Scale out (App Service plan)

App Service (Slot)

Save Discard Refresh Logs Feedback

Default* Auto created default scale condition

Delete warning The very last or default recurrence rule cannot be deleted. Instead, you can disable autoscale to turn off autoscale.

Scale mode Scale based on a metric

Rules It is recommended to have at least one scale rule. To create new rules, click Add a rule

Scale out When ASP-rgwebapp-9525 (Maximum) CpuPercentage > 10 Increase count by 1

+ Add a rule

Instance limits Minimum * 1 Maximum * 3 Default * 1

Schedule This scale condition is executed when none of the other scale condition(s) match

+ Add a scale condition

Microsoft Azure Search resources, services, and docs (G+)

Home > staging (testinsat/staging)

staging (testinsat/staging) | Scale out (App Service plan)

App Service (Slot)

Search Save Discard Refresh Logs Feedback

Authentication Application Insights Identity Backups Custom domains Certificates

Default* Auto created default scale condition [Edit](#)

Delete warning [Edit](#) The very last or default recurrence rule cannot be deleted. Instead, you can disable autoscale to turn off autoscale.

Scale mode Scale based on a metric Scale to a specific instance count

PowerShell

```
X-Powered-By: PHP/8.2.1
Content-Type: text/html; charset=utf-8

Hello World!
Headers : {[Date, System.String[]], [Server, System.String[]], [Transfer-Encoding, System.String[]], [X-Powered-By, System.String[]]...}
Images : {}
InputFields : {}
Links : {}
RawContentLength : 12
RelationLink : {}

Reading web response [Reading response stream... (Number of bytes read: 0)]
```

Microsoft Azure Search resources, services, and docs (G+)

Home > staging (testinsat/staging)

staging (testinsat/staging) | Scale out (App Service plan)

App Service (Slot)

Search Save Discard Refresh Logs Feedback

Overview Activity log Access control (IAM) Tags Diagnose and solve problems Microsoft Defender for Cloud

Custom autoscale

Autoscale setting name	ASP-rgwebapp-9535-Autoscale-579
Resource group	rgwebapp
Instance count	3

PowerShell

```
Invoke-WebRequest: Cannot validate argument on parameter 'Uri'. The argument is null or empty. Provide an argument that is not null or empty, and then try the command again.
Invoke-WebRequest: Cannot validate argument on parameter 'Uri'. The argument is null or empty. Provide an argument that is not null or empty, and then try the command again.
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Invoke-WebRequest: Cannot validate argument on parameter 'Uri'. The argument is null or empty. Provide an argument that is not null or empty, and then try the command again.
Invoke-WebRequest: Cannot validate argument on parameter 'Uri'. The argument is null or empty. Provide an argument that is not null or empty, and then try the command again.
PS /home/mouhibbenjema>
```

Microsoft Azure Search resources, services, and docs (G+/)

Home > staging (testinsat/staging)

staging (testinsat/staging) | Scale out (App Service plan)

App Service (Slot)

Custom autoscale

Autoscale setting name	ASP-rgwebapp-9535-Autoscale-579
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PowerShell

```
Invoke-WebRequest: Cannot validate argument on parameter 'Uri'. The argument is null or empty. Provide an argument that is not null or empty, and then try the command again.  
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Invoke-WebRequest: Cannot validate argument on parameter 'Uri'. The argument is null or empty. Provide an argument that is not null or empty, and then try the command again.  
PS /home/mouhibbenjemaa> Remove-AzResourceGroup -Name 'rgwebapp' -Force -AsJob
```

ID	Name	PSJobTypeName	State	HasMoreData	Location	Command
2	Long Running O...	AzureLongRunni...	Running	True	localhost	Remove-AzResourceGroup

PS /home/mouhibbeniemaa>

Task 2: Azure Function app and Logic apps

1-

Microsoft Azure Search resources, services, and docs (G+/)

Home > Function App

Create Function App

Basics Storage Networking Monitoring Deployment Tags Review + create

Create a function app, which lets you group functions as a logical unit for easier management, deployment and sharing of resources. Functions lets you execute your code in a serverless environment without having to first create a VM or publish a web application.

Project Details

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

Subscription * Resource Group *

Instance Details

Function App name * .azurewebsites.net

Do you want to deploy code or container? Code Container Image

Microsoft Azure

Home > Function App >

Create Function App

Runtime stack *

Version *

Region *

Operating system
The Operating System has been recommended for you based on your selection of runtime stack.

Operating System * Linux Windows

Hosting
The plan you choose dictates how your app scales, what features are enabled, and how it is priced. [Learn more](#)

Hosting options and plans * Consumption (Serverless)
Optimized for serverless and event-driven workloads.

Functions Premium
Event based scaling and network isolation, ideal for workloads running continuously.

App service plan
Fully isolated and dedicated environment suitable for workloads that

Review + create [< Previous](#) [Next : Storage >](#)

Microsoft Azure

Home > Function App >

Create Function App

Basics **Storage** Networking Monitoring Deployment Tags Review + create

Storage
When creating a function app, you must create or link to a general-purpose Azure Storage account that supports Blobs, Queue, and Table storage.

Storage account *
[Create new](#)

Review + create [< Previous](#) [Next : Networking >](#)

Microsoft Azure Search resources, services, and docs (G+/)

Home > Function App >

Create Function App

Review + create

Basics Storage Networking Monitoring Deployment Tags

Summary

Function App by Microsoft

Details

Subscription	85030eba-08e4-4093-ab86-fa81b9f39a8b
Resource Group	rg-functionapp
Name	functionapptp
Runtime stack	.NET 6 (LTS)

Hosting

Storage (New)

Storage account	rgfunctionappa63a
-----------------	-------------------

Plan (New)

Create < Previous Next > Download a template for automation

Microsoft Azure Search resources, services, and docs (G+/)

Home >

Microsoft.Web-FunctionApp-Portal-624beead-8487 | Overview

Deployment

Search Delete Cancel Redeploy Download Refresh

Overview

Deployment is in progress

Deployment name: Microsoft.Web-FunctionApp-Portal-6... Start time: 4/27/2023, 10:08:47 PM
Subscription: Azure for Students Correlation ID: dd420c92-3206-49e7-b3cc-77e82e80
Resource group: rg-functionapp

Deployment details

Resource	Type	Status	Operation details
functionapptp	microsoft.insights/comp...	OK	Operation details
functionapptp	microsoft.insights/comp...	OK	Operation details
rgfunctionappa63a	Microsoft.Storage/stora...	OK	Operation details
ASP-rgfunctionapp-a168	Microsoft.Web/serverfar...	OK	Operation details
rgfunctionappa63a	Microsoft.Storage/stora...	OK	Operation details
newWorkspaceTemplate	Microsoft.Resources/dep...	OK	Operation details

Give feedback

Tell us about your experience with deployment

<https://portal.azure.com/?Microsoft Azure Education correlationId=26d4284c8bd849fda998b5295c250348&Microsoft Azure Education newA4E=true&Microsoft Azure Education asoSubGuid=85030eba-08e4-4093-ab86-fa81b9f...>

2-

The screenshot shows the Microsoft Azure portal interface for creating a new function. The left sidebar includes links for Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Microsoft Defender for Cloud, Events (preview), Functions (selected), App keys, App files, Proxies, Deployment slots, and Deployment Center. The main area is titled 'Create function' and contains sections for 'Select development environment' (set to 'Develop in portal') and 'Select a template'. A table lists five templates: HTTP trigger, Timer trigger, Azure Queue Storage trigger, Azure Service Bus Queue trigger, and Azure Service Bus Topic trigger. The 'HTTP trigger' row is highlighted. At the bottom are 'Create' and 'Cancel' buttons.

Template	Description
HTTP trigger	Fonction exécutée quand elle reçoit une requête HTTP (réponse basée sur les données dans la chaîne du corps ou de la requête)
Timer trigger	Fonction exécutée selon une planification définie
Azure Queue Storage trigger	Fonction exécutée quand un message est ajouté à une file d'attente Stockage Azure spécifiée
Azure Service Bus Queue trigger	Fonction exécutée quand un message est ajouté à une file d'attente Service Bus spécifiée
Azure Service Bus Topic trigger	Fonction exécutée quand un message est ajouté à la rubrique Service Bus spécifiée

Microsoft Azure Search resources, services, and docs (G+/)

HttpTrigger1 | Code + Test

Overview

Developer

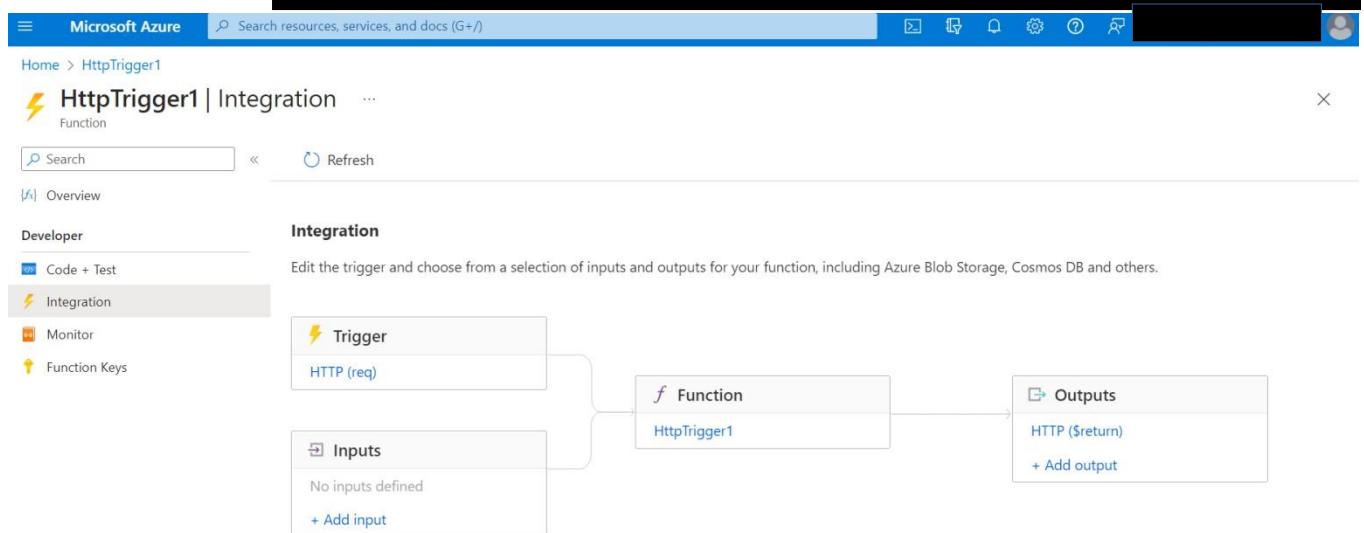
- Code + Test
- Integration
- Monitor
- Function Keys

functionapptp \ HttpTrigger1 \ run.csx

```
1  #r "Newtonsoft.Json"
2
3  using System.Net;
4  using Microsoft.AspNetCore.Mvc;
5  using Microsoft.Extensions.Primitives;
6  using Newtonsoft.Json;
7
8  public static async Task<IActionResult> Run(HttpContext req, ILogger log)
9  {
10    ... log.LogInformation("C# HTTP trigger function processed a request.");
11
12    string name = req.Query["name"];
13
14    return new ContentResult { Content = "Hello " + name };
15}
```

Logs App Insights Logs Log Level Stop Copy Clear Maximize Leave Feedback

Connected! You are now viewing logs of Function runs in the current Code + Test panel. To see all the logs for this Function, please go to 'Monitor' from the Function menu.



3-

Microsoft Azure Search resources, services, and docs (G+/)

Home > Logic apps > Create Logic App

Basics Hosting Networking Monitoring Tags Review + create

Create a logic app, which lets you group workflows as a logical unit for easier management, deployment and sharing of resources. Workflows let you connect your business-critical apps and services with Azure Logic Apps, automating your workflows without writing a single line of code.

Project Details

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

Subscription * Resource Group * [Create new](#)

Instance Details

Logic App name * .azurewebsites.net

Publish * Workflow Docker Container

Region *

[Review + create](#) [< Previous](#) [Next : Hosting >](#)

Microsoft Azure Search resources, services, and docs (G+/)

Home > Logic apps > Create Logic App

Enable log analytics * Yes No

Plan

The plan type you choose dictates how your app scales, what features are enabled, and how it is priced. [Learn more](#)

Plan type * **Standard:** Best for enterprise-level, serverless applications, with event-based scaling and networking isolation. **Consumption:** Best for entry-level. Pay only as much as your workflow runs.
 [Looking for the classic consumption create experience? Click here](#)

Zone redundancy (preview)

Set up your Consumption logic app to use availability zones in Azure regions that support zone redundancy. This option is available only when you create and deploy your logic app. Eventually, all Consumption logic apps in zone supported regions will enable availability zones by default. [Learn more](#)

Zone redundancy **Enabled:** Your Consumption logic app uses availability zone. **Disabled:** Your Consumption logic app doesn't use availability zones.

[Review + create](#) [< Previous](#) [Next : Tags >](#)

Microsoft Azure Search resources, services, and docs (G+/)

Home > Logic Apps Designer ...

Introducing Azure Logic Apps

Watch later Share

Azure Logic Apps

Watch on YouTube

Building integration solutions is easier than ever. Logic Apps brings speed and scalability into the enterprise integration space. The ease of use of the designer, variety of available triggers and actions, and powerful management tools make centralizing your APIs simpler than ever. As businesses move towards digitalization, Logic Apps allows you to connect legacy and cutting-edge systems together.

- Create business processes and workflows visually
- Integrate with SaaS and enterprise applications
- Unlock value from on-premises and cloud applications

Start with a common trigger
Pick from one of the most commonly used triggers, then orchestrate any number of actions using the rich collection of connectors

When a message is When a HTTP When a new tweet is When an Event Grid

Microsoft Azure Search resources, services, and docs (G+/)

Home > Logic Apps Designer ...

Save Discard Run Trigger Designer Code view Parameters Templates Connectors Help Info Try Preview Designer

```
1 {
2   "definition": {
3     "$schema": "https://schema.management.azure.com/providers/Microsoft.Logic/schemas/2016-06-01/workflowdefinition.json#",
4     "actions": {},
5     "contentVersion": "1.0.0.0",
6     "outputs": {},
7     "parameters": {},
8     "triggers": {
9       "manual": {
10         "inputs": {
11           "schema": {
12             "properties": {
13               "name": {
14                 "type": "string"
15               }
16             },
17             "type": "object"
18           }
19         }
20       },
21       "kind": "Http",
22       "type": "Request"
23     }
24   }
25 }
```

Microsoft Azure Search resources, services, and docs (G+/)

Home > logicappinsat

logicappinsat | Logic app designer

Logic app

Search

Overview Activity log Access control (IAM) Tags Diagnose and solve problems Development Tools Logic app designer Logic app code view Versions API connections Quick start guides Settings Workflow settings Authorization

Save Discard Run Trigger Designer Code view Parameters Templates Connectors Help Info

When a HTTP request is received

HttpTrigger1

Request Body name Add new parameter

+ New step

100%

```
graph TD; A[When a HTTP request is received] --> B[HttpTrigger1]; B --> C[+ New step]
```

Microsoft Azure Search resources, services, and docs (G+/)

Home > logicappinsat

logicappinsat | Logic app designer

Logic app

Search

Overview Activity log Access control (IAM) Tags Diagnose and solve problems Development Tools Logic app designer Logic app code view Versions API connections Quick start guides Settings Workflow settings Authorization

Save Discard Run Trigger Designer Code view Parameters Templates Connectors Help Info

When a HTTP request is received

HttpTrigger1

0s 1s

```
graph TD; A[When a HTTP request is received: 0s] --> B[HttpTrigger1: 1s]
```

The screenshot shows the Postman interface with a collection named "Projet Nest". A POST request is made to "https://functionapptp.azurewebsites.net". The response status is 200 OK. The response body is a large block of HTML code, which appears to be the output of an Azure Function App. The code includes doctype declarations, head and style sections, and various CSS and JavaScript snippets.

Interprétations:

1. Web App:

C'est un service qui fournit une plateforme qui sert à créer et à déployer une application sur Azure sans avoir besoin de configurer votre propre VM Azure.

On a la possibilité de créer des applications Web avec les technologies suivantes : ASP.NET / NodeJS / Python / PHP. Ce service peut permettre à construire des « applications API » ou « Logic Apps » qui peuvent générer une intégration avec SaaS.

En utilisant « Azure App Service », on peut ajouter de la sécurité, le scaling automatique et du load balancing pour l'application qu'on va créer.

Dans le contexte de ce TP nous avons créé une application Web en la déployant sur deux Deployment slots pour y accéder à travers le site qui commence par « NomDuWebApp-Staging ». En effet, le « staging » dans l'app service représente un Deployment slot qui n'est pas utilisé pour la production mais pour établir les tests et les validations avant de déployer les changements finaux sur l'environnement de production. Après avoir validé toutes les changements faits sur le « staging » slot, on peut alors changer (« swap ») entre le staging et le slot de la production afin d'introduire les changements dans l'environnement de production. Ceci permet d'éviter les risques qui peuvent se produire lors du déploiement des nouvelles mises à jour puisqu'on a plusieurs deployment slots pour chaque application.

Ensuite nous avons utilisé la fonctionnalité « scale out » dans l'app service plan du microsoft azure afin d'augmenter le nombre d'instances pour l'application qui est en train d'exécution dans le même app service plan. Ceci nous permettra de gérer mieux le trafic et d'une quantité plus importante ce qui améliorera la disponibilité et la robustesse de l'application (le « load » sera distribué sur plusieurs instances). Nous l'avons fait en se basant sur les métriques du pourcentage du CPU.

2. Function App:

C'est un service cloud « serverless » c'est-à-dire un service de cloud computing qui permet d'exécuter des applications sans avoir besoin de créer une infrastructure ou des serveurs derrière ces applications. Tout sera fait dynamiquement par les fournisseurs de service cloud (Azure microsoft dans notre cas fera l'allocation et la gestion des ressources de computing comme le stockage). Ce type de service généralement permettra de se focaliser totalement sur l'aspect de l'application en elle-même (comme l'écriture d'un code ou la création des applications) sans avoir besoin de se soucier sur l'infrastructure.

En effet, la Function App permet de créer et d'exécuter des applications avec une disponibilité élevée (en créant aussi un workflow qui se base sur des événements). Le paiement s'effectue selon les ressources et les fonctions qu'on a utilisé lorsqu'on exécute ; Il s'agit du modèle « pay-per-use ». Dans le cadre de notre TP, nous avons établi une Function App, en définissant un « http trigger » qui s'agit d'une API http endpoint serverless qui peut envoyer des réponses aux requêtes http depuis des ressources externes. En utilisant ce type d'application, le code peut être exécuté en temps qu'évènement comme une requête http et peut retourner une réponse JSON ou HTML, on aura un URL généré par cette application qui peut être utilisé comme un endpoint qui gérera les requêtes http. C'est une façon facile de créer des APIs http sans se soucier de l'infrastructure.

3. Logic App:

C'est un service qui permet de configurer des différentes applications en utilisant l'outil « designer » en définissant une « logique » constituée de « triggers » et « actions » qui feront des tâches spécifiques basées sur des entrées ou des conditions prédéfinies.

Dans le cadre de ce TP, nous avons défini une logic app et on a exécuté le trigger en utilisant le « designer » pour créer un workflow correspondant à une réponse qui sera basée sur la fonction qu'on a créée auparavant (HTTPtrigger). On l'a définie de telle façon qu'elle retournera le « body » pour chaque requête POST vers l'API défini de l'application.