



Azure Web Jobs

**Developing Solutions
for Microsoft Azure**

What is a webjob?

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Web Jobs is program or script in the same context as a web app, API app, or mobile app in Azure App Service.



There is no additional cost to use WebJobs.



Web Jobs is not yet supported for App Service on Linux.



Webjobs sdk can be used to simplify many programming tasks.

Supported File Type

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.cmd, .bat, .exe
(using
Windows cmd)

.ps1 (using
PowerShell)

.sh (using
Bash)

.php (using
PHP)

.py (using
Python)

.js (using
Node.js)

.jar (using Java)

Webjob Types

Continuous

Starts immediately when the Web Job is created. To keep the job from ending, the program or script typically does its work inside an endless loop. If the job does end, you can restart it.

Runs on all instances that the web app runs on. You can optionally restrict the WebJob to a single instance.

Triggered

Starts only when triggered manually or on a schedule.

Runs on a single instance that Azure selects for load balancing.

Demo



- Create a Web job in portal using the batch file execution
- Use Visual Studio SDK to create Web Jobs
- Queue Trigger and Timer Trigger In Visual Studio

CRON Expression

Expression	Description	runs at
<code>0 * * * * *</code>	every minute	09:00:00; 09:01:00; 09:02:00; ... 10:00:00
<code>0 */5 * * * *</code>	every 5 minutes	09:00:00; 09:05:00; 09:10:00
<code>0 0 * * * *</code>	every hour (hourly)	09:00:00; 10:00:00; 11:00:00



Azure Functions

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The background of the slide features a series of thin, curved lines in shades of gray, creating a sense of motion and depth. These lines are more prominent on the left side and fade towards the right.

Azure Function

Azure Functions is a **serverless** compute service that enables you to run code on-demand without having to explicitly provision or manage infrastructure.

Triggers

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Timer: run a function
on a schedule



Message: listen for
messages on a queue



HTTP Request:
implement web APIs or
webhooks



Many more: Azure
Storage blob creation,
Cosmos DB new row

Bindings

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SendGrid



Table Storage



Service Bus



Blob Storage



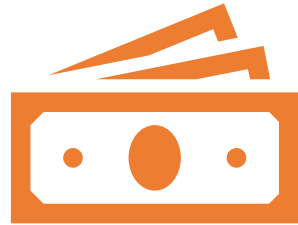
Cosmos DB



Queue

Hosting Model

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App Service Plan

Reserved servers
Predictable monthly cost



Consumption Plan (Serverless)

Per-second billing
1,000,000 executions

Security

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API Keys

Function key

Admin Key

Azure AD Authentication

Demo

- Create a Function App in portal and test it
- Create a function in visual Studio
- Create an API with Function App
- Demo on Input and output Binding



```
{
  "$schema": "http://json.schemastore.org/proxies",
  "proxies": {
    "proxy1": {
      "matchCondition": {
        "methods": [
          "GET"
        ],
        "route": "/api/{test}"
      },
      "backendUri": "https://<AnotherApp>.azurewebsites.net/api/<FunctionName>",
      "requestOverrides": {
        "backend.request.headers.Accept": "application/xml",
        "backend.request.headers.x-functions-key": "%ANOTHERAPP_API_KEY%"
      },
      "responseOverrides": {
        "response.body": "Hello, {test}",
        "response.headers.Content-Type": "text/plain"
      }
    }
  }
}
```

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Type	Trigger	Input	Output
Blob storage	✓	✓	✓
Cosmos DB	✓	✓	✓
Event Grid	✓		
Event Hubs	✓		✓
HTTP & webhooks	✓		✓
Microsoft Graph Excel tables		✓	✓
Microsoft Graph OneDrive files		✓	✓
Microsoft Graph Outlook email			✓
Microsoft Graph events	✓	✓	✓
Microsoft Graph Auth tokens		✓	
Mobile Apps		✓	✓
Notification Hubs			✓
Queue storage	✓		✓
SendGrid			✓
Service Bus	✓		✓
SignalR		✓	✓
Table storage		✓	✓
Timer	✓		
Twilio			✓

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