

Lab 10

CST8912_011

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Submitted to :
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Lab Report Format

Title

Create Automated Workflows with Azure Logic Apps

Introduction or Purpose

Azure Logic Apps is a PaaS from Microsoft that lets you create automated workflows with little to no code. Using a visual designer and prebuilt operations, you can easily integrate and manage apps, data, services, and systems.

Steps covered in the lab

Task 1: Alert Users Based on SQL Database Data

1. **Create Logic App** and SQL database in Canada Central region.
2. **Create Alerts Table** in the SQL database.
3. **Insert Records** into the Alerts table (use SQL queries).
4. **Verify Records** by selecting rows from the table.
5. **Set up Logic App**: Choose a recurrence trigger (every 3 minutes).
6. **Add SQL Action**: Use "Get rows" action with server credentials.
7. **Add 'For-Each' Loop**: Select the "Value" parameter from dynamic content.
8. **Add Send Mail Action**: Configure the mail using dynamic content.
9. **Save the Logic App** and wait for an email to be sent.

Task 2: Alert When File is Not Uploaded in Blob Storage

1. **Create Storage Account** in Canada Central region.
2. **Create a Container** with a folder format "yyyy-mm-dd."
3. **Create a Trigger** to check every day at 6pm.
4. **Use List Blob Action**: Check if the file exists using a date-based path.
5. **Send Email Notification** if the file is missing.

Task 3: Monitor Workflows in Azure Monitor

- **Monitor workflows** in the Azure Monitor for performance and status.

Task 4: Clean Resources and Record Steps

1. **Delete all resources** created in the lab.

Results

Task 1 - how you can alert users based on the data present/updated in your SQL Database

Microsoft Azure

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

Copilot

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ALGONQUIN COLLEGE (ALGONG...

All services > Create a resource >

Create Logic App

×

Select a hosting option

These hosting plans determine the resource allocation, scaling and pricing for your app. [Learn more about Logic App hosting options](#)

	Consumption	Standard		
Hosting plans	<div>Multi-tenant</div> <div>Fully managed and easy to get started.</div>	<div>Workflow Service Plan</div> <div>Single tenant runtime with in-app connectors and scaling features.</div>	<div>App Service Environment V3</div> <div>Single tenant runtime with full isolation and scale out feature across App Service plans.</div>	<div>Hybrid</div> <div><div>PREVIEW</div>Local processing and multi-cloud support with Kubernetes Event-Driven Autoscaling.</div>
Compute	Shared	Dedicated	Dedicated	Customer managed
Networking	Public cloud	VNET Integration	VNET Integration	Local network access
Pricing	Pay-per-operation	Per workflow service plan instance	Per App Service for App Service Environment instance	Per vCPU hour of Kubernetes cluster

Select

Microsoft Azure

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...

All services > Create a resource > Create Logic App >

Create Logic App (Multi-tenant)

×

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 *

Azure for Students

Resource Group *

(New) lab10

Create new

Instance Details

Logic App name *

logicapp

Region *

Canada Central

Enable log analytics *

Yes

No

⚠

There are no log analytics workspace resources in the selected subscription. In order to enable log analytics, either create a new log analytics workspace resource or switch to a subscription which already has one.

Review + create

< Previous

Next : Tags >

Microsoft Azure

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...

All services >

logicapp

Logic app

☆

...

×

Search

Run

Refresh

Edit

Delete

Disable

Clone

...

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Resource visualizer

Development Tools

Settings

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Automation

Help

Essentials

JSON View

Resource group (move) : lab10

Location (move) : Canada Central

Subscription (move) : Azure for Students

Subscription ID : cdb9bdf3-e7ee-43e9-8f6c-ba7327868df1

Workflow URL : --

Definition : 0 triggers, 0 actions

Status : Enabled

Runs last 24 hours : 0 successful, 0 failed

Integration Account : --

Tags (edit) : Add tags

Get started

Runs history

Trigger history

Metrics

Resubmit

Add

Specify the run identifier to open monitor view directly

Identifier

Status

Start time (Loc...

Showing 0 runs

Microsoft Azure

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[Home](#) > [Create a resource](#) > [Marketplace](#) > [Create SQL Database](#) >

Create SQL Database Server

Microsoft

subscription and resource group as your database.

Server name *

lab10server

✓

.database.windows.net

Location *

(Canada) Canada Central

✓

Authentication

Azure Active Directory (Azure AD) is now Microsoft Entra ID. [Learn more](#)

Select your preferred authentication methods for accessing this server. Create a server admin login and password to access your server with SQL authentication, select only Microsoft Entra authentication [Learn more](#) using an existing Microsoft Entra user, group, or application as Microsoft Entra admin [Learn more](#), or select both SQL and Microsoft Entra authentication.

Authentication method

☐ Use Microsoft Entra-only authentication

☐ Use both SQL and Microsoft Entra authentication

☒ Use SQL authentication

Server admin login *

adminlab10

✓

Password *

✓

Confirm password *

✓

OK

X

«

Feedback

Data Encryption

Tutorials

Connect to your database and start working with data with a few simple steps. [Learn more](#) 



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

Home > lab10database (lab10server/lab10database)

lab10database (lab10server/lab10database) | Query editor (preview)

SQL database

Search Login + New Query ↑ Open query Feedback Getting started

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Mirror database in Fabric (preview)
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Auditing
Ledger
Data Discovery & Classification
Dynamic Data Masking
Microsoft Defender for Cloud
Identity
Data Encryption

lab10database (degu0055@algonquinli...)

Tables

Showing limited object explorer here. For full capability please click here to open Azure Data Studio.

Tables
Views
Stored Procedures

Query 1 ×

Run Cancel query Save query Export data as

```
1 create table Alerts
2 (
3   ID int NOT NULL PRIMARY KEY IDENTITY (1,1),
4   ToAddress varchar (50) NOT NULL,
5   MailSubject varchar(50) NOT NULL,
6   MailBody varchar(50) NOT NULL,
7   EmailSent bit NOT NULL
8 )
```

Results Messages

Search to filter items...

Ready

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

Home > lab10 > lab10database (lab10server/lab10database)

lab10database (lab10server/lab10database) | Query editor (preview)

SQL database

Search Login + New Query ↑ Open query Feedback Getting started

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Intelligent performance
Performance overview
Performance recommendations
Query performance

lab10database (degu0055@algonquinli...)

Tables

Showing limited object explorer here. For full capability please click here to open Azure Data Studio.

dboAlerts

- ID (PK, int, not null)
- ToAddress (varchar, not null)
- MailSubject (varchar, not null)
- MailBody (varchar, not null)
- EmailSent (bit, not null)

dbo.BuildVersion
dbo.ErrorLog
dbo.Test
SalesLT.Address
SalesLT.Customer
SalesLT.CustomerAddress
SalesLT.Product
SalesLT.ProductCategory
SalesLT.ProductDescription
SalesLT.ProductModel
SalesLT.ProductModelProductDesc
SalesLT.SalesOrderDetail
SalesLT.SalesOrderHeader

Views
Stored Procedures

Query 1 ×

Run Cancel query Save query Export data as Show only Editor Open Copilot

```
1 SELECT * FROM [dbo].[Alerts];
2
```

Results Messages

Search to filter items...

ID	ToAddress	MailSubject	MailBody	EmailSent
1	youremail	demoApp1	This is message body1	False
2	youremail	demoApp2	This is message body2	False
3	youremail	demoApp3	This is message body3	False
4	youremail	demoApp1	This is message body1	False
5	youremail	demoApp2	This is message body2	False
6	youremail	demoApp3	This is message body3	False

Query succeeded | 0s

Microsoft Azure

Search resources, services, and docs (G+I)

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ALGONQUIN COLLEGE (ALGONQ...

Home > logicapp

logicapp | Logic app designer

Logic app

Search

Run Save Discard Parameters Code view Errors Info File a bug

Overview

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Logic app templates

Run history

Versions

API connections

Quick start guides

Settings

Settings

Authorization

Access keys

Identity

Properties

Locks

Monitoring

Alerts

Recurrence

+

+ - 🔍

Recurrence

Parameters Settings Code view About

Recurrence *

Interval *
3

Frequency *
Minute

Time Zone
Select timezone.

Start Time
Example: 2017-03-24T15:00:00Z



Search

Run

Save

Discard

Parameters

Code view

Errors

Info

File a bug

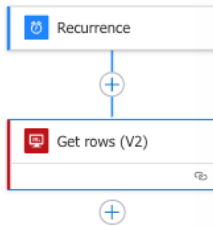
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- Settings
- Authorization
- Access keys
- Identity
- Properties
- Locks
- Monitoring
- Alerts



Get rows (V2)

Parameters Settings Code view Testing About

Server Name *

lab10server.database.windows.net

Database Name *

lab10database

Table Name *

Alerts

Advanced parameters

Showing 0 of 6

Show all

Clear all

Connected to connection2. [Change connection](#)

Microsoft Azure Search resources, services, and docs (G+/) Copilot degu0055@algonquinli... ALGONQUIN COLLEGE (ALGONQ...

Home > Microsoft.Web-LogicAppConsumption-Portal-8df7c0fa-b2f0 | Overview > logicapp

logicapp | Logic app designer

Search

Run Save Discard Parameters Code view Errors Info File a bug

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 - Settings
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 - Properties
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- Monitoring
 - Alerts

Recurrence

Get rows (V2)

For each

0 Actions

For each

Parameters Settings Code view About

Select An Output From Previous Steps *

value x

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Home > logicapp

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Search

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Recurrence

Get rows (V2)

For each

Send an email (V2)

Send an email (V2)

Parameters Settings Code view Testing About

ToAddress x

Subject *

MailSubject x

Body *

MailBody x

Advanced parameters

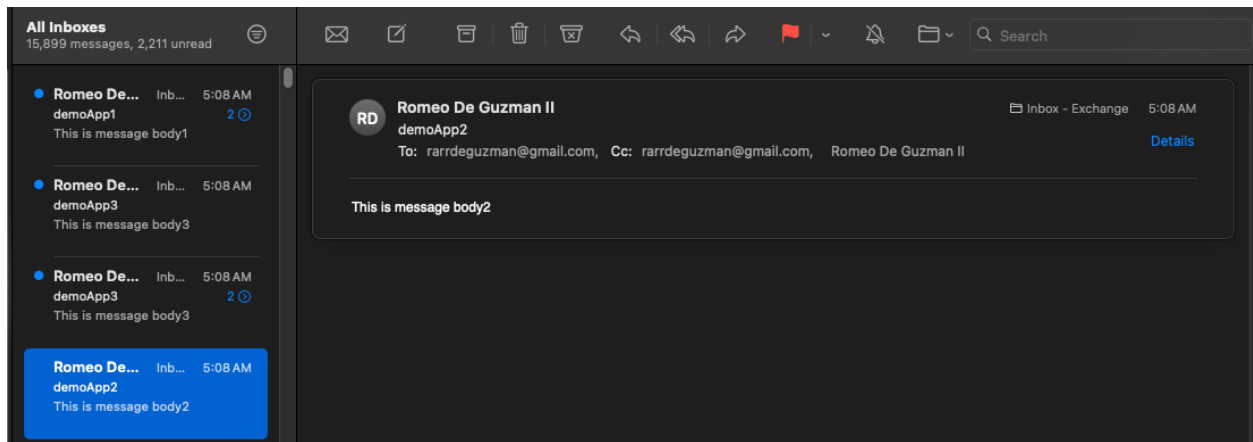
Showing 2 of 7 Show all Clear all

cc

rarrdeguzman@gmail.com

Importance

Normal



Task 2 - how to alert users when file gets uploaded/deleted in blob storage

Microsoft Azure

Search resources, services, and docs (G+/I)

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ALGONQUIN COLLEGE (ALGONQ...

Home > storageaccounttromeo_1741428621167 | Overview >

storageaccounttromeo

Storage account

Search

Upload Open in Explorer Delete Move Refresh Open in mobile CLI / PS Feedback

Overview

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Data migration

Events

Storage browser

Storage Mover

Partner solutions

Resource visualizer

Data storage

Security + networking

Data management

Settings

Configuration

Data Lake Gen2 upgrade

Resource sharing (CORS)

Essentials

JSON View

Resource group (move) : lab10

Location : canadacentral

Primary/Secondary Locati... : Primary: Loading..., Secondary: Loading...

Subscription (move) : Azure for Students

Subscription ID : cdb9bdf3-e7ee-43e9-8f6c-ba7327868df1

Disk state : Primary: Available, Secondary: Available

Tags (edit) : Add tags

Performance : Standard

Replication : Read-access geo-redundant storage (RA-GRS)

Account kind : StorageV2 (general purpose v2)

Provisioning state : Succeeded

Created : 3/8/2025, 5:10:25 AM

Properties Monitoring Capabilities (7) Recommendations (0) Tutorials Tools + SDKs

Blob service

Hierarchical namespace : Disabled

Default access tier : Hot

Blob anonymous access : Disabled

Blob soft delete : Enabled (7 days)

Container soft delete : Enabled (7 days)

Versioning : Disabled

Change feed : Disabled

NFS v3 : Disabled

Allow cross-tenant replication : Disabled

Security

Require secure transfer for REST API operations : Enabled

Storage account key access : Enabled

Minimum TLS version : Version 1.2

Infrastructure encryption : Disabled

Networking

Allow access from : All networks

Private endpoint connections : 0

Network routing : Microsoft network routing

Microsoft Azure

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Home > storageaccounttromeo_1741428621167 | Overview > storageaccounttromeo

storageaccounttromeo

Containers

Search

+ Container Change access level Restore containers Refresh Delete Give feedback

Containers

File shares

Queues

Tables

Security + networking

Data management

Settings

Configuration

Data Lake Gen2 upgrade

Search containers by prefix

Name	Last modified	Anonymous access
<input type="checkbox"/> \$logs	3/8/2025, 5:10:47 AM	Private

New container

Name *
2025-03-08

Anonymous access level ⓘ
Private (no anonymous access)

The access level is set to private because anonymous access is disabled on this storage account.

Advanced

Create Give feedback

Microsoft Azure

Search resources, services, and docs (G+)

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Home > storageaccountromeo_1741428621167 | Overview > storageaccountromeo | Containers >

2025-03-08
Container

Search

Upload | Change access level | Refresh | Delete | Change tier | Acquire lease | Break lease | View snapshots | Create snapshot | Give feedback

Overview

Diagnose and solve problems

Access Control (IAM)

Settings

Authentication method: Access key (Switch to Microsoft Entra user account)

Location: 2025-03-08

Search blobs by prefix (case-sensitive)

Show deleted blobs

Add filter

Name	Modified	Access tier	Archive status	Blob type	Size	Lease state	
2025-03-08						-	...

Successfully uploaded blob(s)
Successfully uploaded 1 blob(s).

Microsoft Azure

Search resources, services, and docs (G+)

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Home > logicapp

logicapp | Logic app designer

Logic app

Search

Run | Save | Discard | Parameters | Code view | Errors | Info | File a bug

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Settings

Authorization

Access keys

Identity

Recurrence

+

Recurrence

Parameters | Settings | Code view | About

Recurrence *

Interval * | Frequency *
1 | Day

Time Zone
Select timezone.

Start Time
2025-03-08T18:00:00Z

At These Hours
18

At These Minutes
0

Preview
Runs at 18:00 every day

Successfully saved workflow
Successfully saved workflow 'logicapp'

Microsoft Azure

Home > logicapp

logicapp | Logic app designer

Search

Run Save Discard Parameters Code view Errors Info File a bug

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Lists blobs (V2)

Parameters Settings Code view Testing About

Storage Account Name Or Blob Endpoint *

Azure Storage account name or blob endpoint.

Folder *

Specify the folder.

Advanced parameters

Showing 2 of 2 Show all Clear all

Paging Marker

A marker that identifies the portion of the list to be returned with the list opera...

Flat Listing

No

Connected to connectionname. Change connection

Microsoft Azure

Home > logicapp

logicapp | Logic app designer

Search

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Lists blobs (V2)

For each

Condition

True 0 Actions

False Send an email (V2)

Condition

Parameters Settings Code view About

Condition Expression *

Provide the values to compare and select the operator to use.

AND

IsFolder is equal to true

New item

Successfully saved workflow

Successfully saved workflow 'logicapp'

Microsoft Azure

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Lists blobs (V2)

For each

Condition

True
0 Actions

False
Send an email (V2)

Send an email (V2)

Parameters Settings Code view Testing About

To *
rarrdeguzman@gmail.com

Subject *
Blob Update

Body *
No folder detected inside 2025-03-08

Advanced parameters
Showing 1 of 7 Show all Clear all

Importance
Normal

All Inboxes
15,900 messages, 2,210 unread

Romeo De... Inb... 6:25 AM
Blob Update
No folder detected inside
2025-03-08

Romeo De... Inb... 6:25 AM
Blob Update
No folder detected inside
2025-03-08

Romeo De... Inb... 6:24 AM
Blob Update
No file detected

Romeo De... Inb... 6:23 AM
Blob Update
No file detected

Romeo De... Inb... 6:22 AM
Blob Update
No file detected

Romeo De... Inb... 6:21 AM
Blob Update
No file detected

Romeo De... Inb... 6:20 AM
Blob Update
No file detected

Microsoft... Inb... 4:44 AM
Your account recovery request
Microsoft account Your account
recovery request for dguzmanr...

Microsoft... Inb... 4:42 AM
Microsoft account security co...
Microsoft account Security code
Please use the following securit...

No Reply B... Inb... 2:13 AM
Submission receipt
Romeo De Guzman II This email
is to confirm that your submissi...

1 MESSAGE

Summarize

RD Romeo De Guzman II
Blob Update
To: rarrdeguzman@gmail.com

No folder detected inside 2025-03-08

Task 3 - Monitoring workflows in azure monitor

Microsoft Azure

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Home >

logicapp
Logic app

Search

Run Refresh Edit Delete Disable Clone Open in mobile Export Provide feedback

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Essentials

Resource group (move) : lab10

Location (move) : Canada Central

Subscription (move) : Azure for Students

Subscription ID : cdb9bdf3-e7ee-43e9-8ffc-ba732786df1

Workflow URL : --

Tags (edit) : Add tags

Definition : 1 trigger, 4 actions

Status : Enabled

Runs last 24 hours : 30 successful, 23 failed

Integration Account : --

Get started

Runs history

Trigger history

Metrics

Resubmit

Add filter Specify the run identifier to open monitor view directly

Identifier	Status	Start time (Local Time)	Duration	Static Results
08584601737255040390815289450CU01	Succeeded	3/8/2025, 6:25:59 AM	1.39 Seconds	
0858460173727329250242605063CU07	Succeeded	3/8/2025, 6:25:12 AM	1.19 Seconds	
08584601737850424716819091679CU30	Succeeded	3/8/2025, 6:25:00 AM	940 Milliseconds	
08584601738457479805896663566CU08	Succeeded	3/8/2025, 6:23:59 AM	1.33 Seconds	
08584601739048825416176537319CU30	Succeeded	3/8/2025, 6:23:00 AM	1.67 Seconds	

Showing 40 runs See more

Task 4 - Clean resources and record all the steps with screenshots in the lab report

Microsoft Azure

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ALGONQUIN COLLEGE (ALGONQ...

Home > Resource groups >

Resource groups

Algonquin College (AlgonquinLivecom.onmicrosof...

Create Manage view

Filter for any field...

Name lab10

lab10

lab10

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Deployment stacks

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Cost Management

Monitoring

Automation

Export template

Help

Support + Troubleshooting

Essentials

Subscription (move) : Azure for Students

Subscription ID : cdb9bdf3-e7ee-43e9-8ffc-ba732786df1

Tags (edit) : Add tags

Deployments : 6 Succeeded

Location : Canada Central

Resources

Recommendations

Filter for any field...

Type equals all

Location equals all

Add filter

Showing 1 to 10 of 10 records

Show hidden types

No grouping

List view

Name	Type	Location
azureblob	API Connection	Canada Central
communicationservices	Communication Service	Global
lab10database (lab10server/lab10database)	SQL database	Canada Central
lab10server	SQL server	Canada Central
logicapp	Logic app	Canada Central

< Previous Page 1 of 1 Next >

Give feedback

Deleting resource group lab10

Deleting resource group lab10