

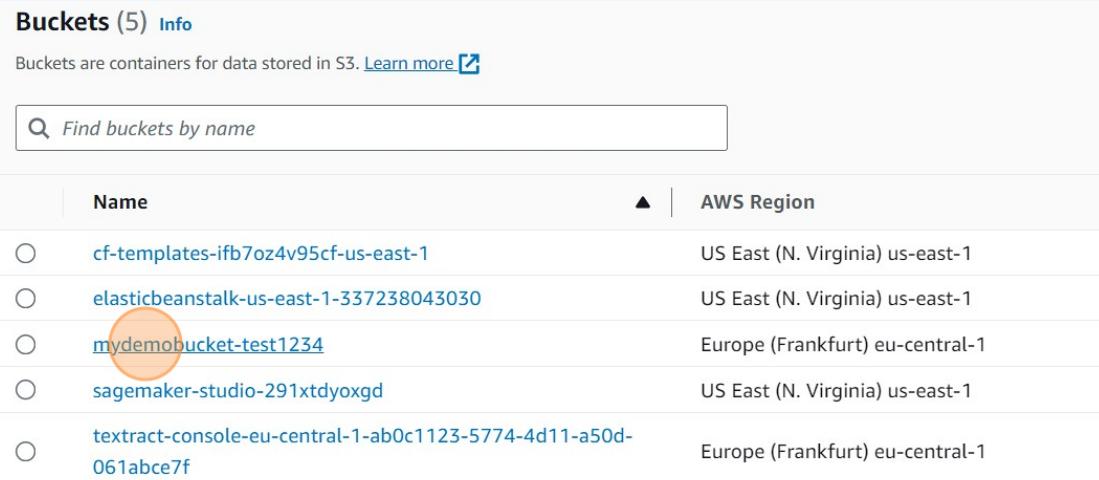
S3 Lifecycle Rules

This guide provides step-by-step instructions on how to set up S3 Lifecycle Rules in AWS. It is useful for anyone who wants to efficiently manage their storage costs by automatically transitioning objects between different storage classes based on their age. By following this guide, users can optimize their storage usage and reduce costs without manual intervention.

This guide was created by Nijat Hajiyev

- 1 Navigate to aws.amazon.com

- 2 Click "mydemobucket-test1234"



Buckets (5) [Info](#)
Buckets are containers for data stored in S3. [Learn more](#)

Find buckets by name

Name	AWS Region
cf-templates-ifb7oz4v95cf-us-east-1	US East (N. Virginia) us-east-1
elasticbeanstalk-us-east-1-337238043030	US East (N. Virginia) us-east-1
mydemobucket-test1234	Europe (Frankfurt) eu-central-1
sagemaker-studio-291xtdyoxgd	US East (N. Virginia) us-east-1
textract-console-eu-central-1-ab0c1123-5774-4d11-a50d-061abce7f	Europe (Frankfurt) eu-central-1

3

Click "Upload"

Pass Points

a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)



Show versions

Last modified | Size | Storage class

No objects

You don't have any objects in this bucket.

[Upload](#)

4

Click "Add files"

You want to upload to S3. To upload a file larger than 160GB, use the AWS CLI, AWS SDK or Amazon

S3

drop files and folders you want to upload here, or choose **Add files** or **Add folder**.

3)

[Remove](#)

[Add files](#)

[Add folder](#)

able will be uploaded.

< 1 >

▼ | Folder

▼ | Type

▼ | Size

▼

No files or folders

You have not chosen any files or folders to upload.

5 Click "coffee.jpg"

The screenshot shows the AWS S3 console interface. At the top, there's a header with 'Remove', 'Add files', and 'Add folder' buttons. Below that is a search bar labeled 'Find by name'. A table lists one file: 'coffee.jpg' (image/jpeg, 108.4 KB). The 'coffee.jpg' entry is highlighted with an orange circle. Below the table is a section titled 'Destination' with the destination set to 's3://mydemobucket-test1234'. There are also 'Destination details' and 'Permissions' sections.

<input type="checkbox"/>	Name	Folder	Type	Size
<input type="checkbox"/>	coffee.jpg	-	image/jpeg	108.4 KB

6 Click here.

This screenshot continues from the previous one, showing the same upload progress for 'coffee.jpg'. The 'Properties' section is highlighted with an orange circle. It includes a note about specifying storage class, encryption settings, tags, and more. At the bottom right, there are 'Cancel' and 'Upload' buttons, with 'Upload' being orange.

<input type="checkbox"/>	Name	Folder	Type	Size
<input type="checkbox"/>	coffee.jpg	-	image/jpeg	108.4 KB

7 Click "Storage class"

The screenshot shows the 'Storage class' configuration page in the AWS Management Console. At the top, there's a navigation bar with various services like EC2, S3, VPC, IAM, AWS Budgets, AWS Cost Explorer, RDS, Route 53, DynamoDB, and others. Below the navigation bar, a search bar has the placeholder 'Search' and a keyboard shortcut '[Alt+S]'. The main area is titled 'Specify storage class, encryption settings, tags, and more.' A section titled 'Storage class' is highlighted with an orange circle. It contains a table comparing three storage classes based on their design for access patterns and availability zones.

Storage class	Designed for	Availability Zones	Min storage duration	More
Standard	Frequently accessed data (more than once a month) with milliseconds access	≥ 3	-	-
Intelligent-Tiering	Data with changing or unknown access patterns	≥ 3	-	-
Standard-IA	Infrequently accessed data (once a month)	-	-	-

8 Click "Storage class"

This screenshot is identical to the one above, showing the 'Storage class' configuration page in the AWS Management Console. The 'Standard' storage class is selected, and the table below provides details about its usage and characteristics.

Storage class	Designed for	Availability Zones	Min storage duration	More
Standard	Frequently accessed data (more than once a month) with milliseconds access	≥ 3	-	-
Intelligent-Tiering	Data with changing or unknown access patterns	≥ 3	-	-
Standard-IA	Infrequently accessed data (once a month) with milliseconds access	≥ 3	30 days	1

9 Click "Designed for"

The screenshot shows the 'Storage class' configuration page for Amazon S3. The 'Designed for' column is highlighted with an orange circle. The table rows represent different storage classes:

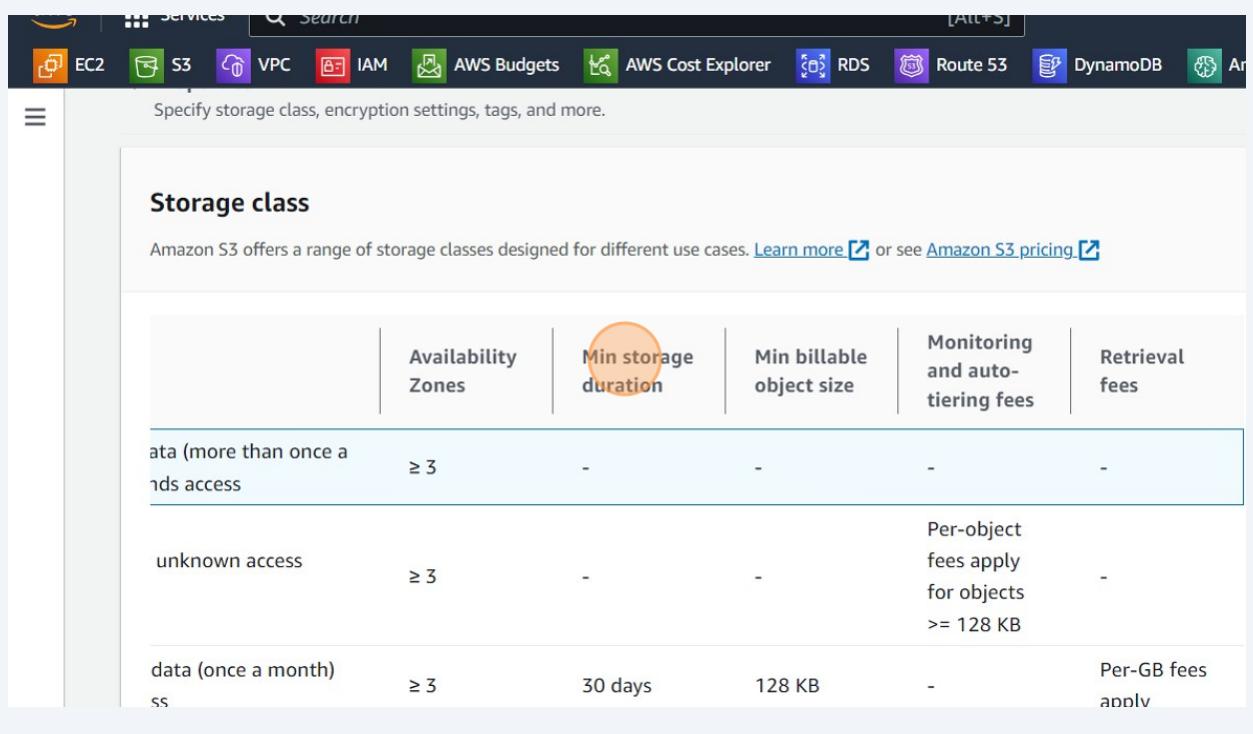
Designed for	Availability Zones	Min storage duration	Min billable object size	Monitoring and auto-tiering fees	Retrieval fees
Frequently accessed data (more than once a month) with milliseconds access	≥ 3	-	-	-	-
Data with changing or unknown access patterns	≥ 3	-	-	-	Per-object fees apply for objects >= 128 KB
Infrequently accessed data (once a month) with milliseconds access	≥ 3	30 days	128 KB	-	-

10 Click "Availability Zones"

The screenshot shows the 'Storage class' configuration page for Amazon S3. The 'Availability Zones' column is highlighted with an orange circle. The table rows represent different storage classes:

Availability Zones	Min storage duration	Min billable object size	Monitoring and auto-tiering fees	Retrieval fees
data (more than once a month) with milliseconds access	≥ 3	-	-	-
unknown access	≥ 3	-	Per-object fees apply for objects >= 128 KB	-
data (once a month) with milliseconds access	≥ 3	30 days	128 KB	Per-GB fees apply

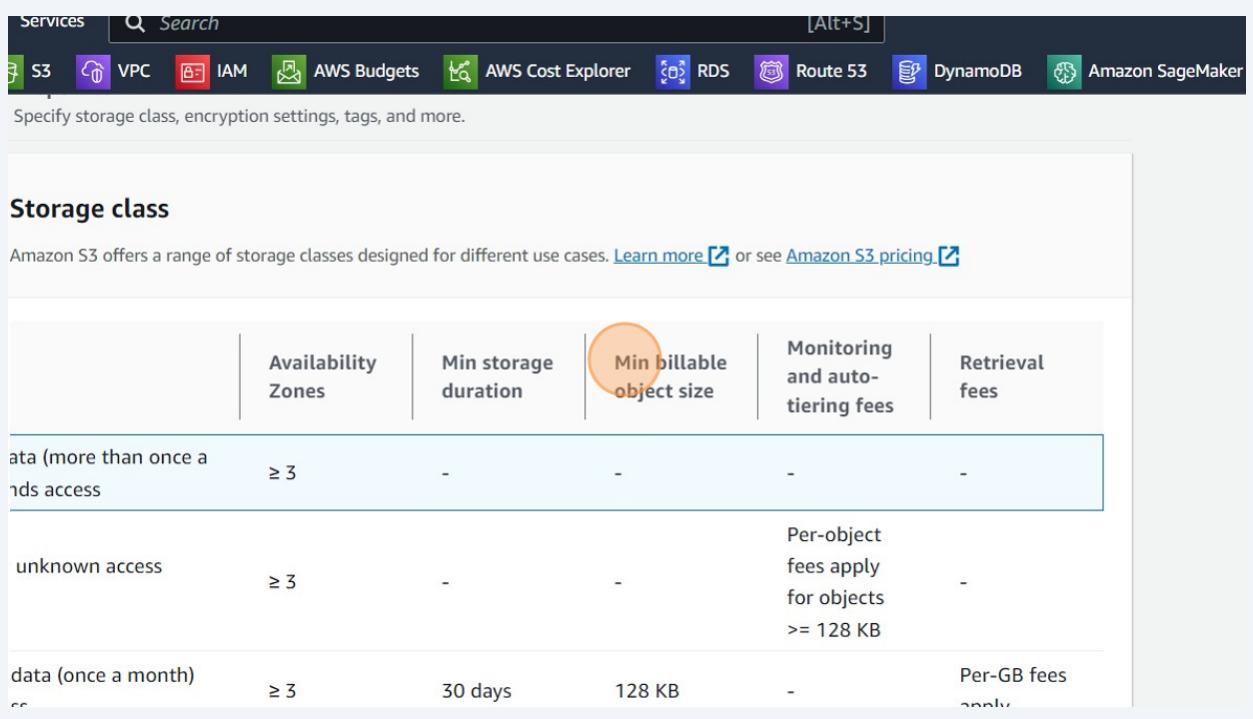
11 Click "Min storage duration"



The screenshot shows the 'Storage class' configuration page for Amazon S3. At the top, there's a navigation bar with various AWS services like EC2, S3, VPC, IAM, AWS Budgets, AWS Cost Explorer, RDS, Route 53, DynamoDB, and others. Below the navigation bar, there's a search bar and a sidebar with three horizontal bars. The main area is titled 'Specify storage class, encryption settings, tags, and more.' It features a table with columns: Availability Zones, Min storage duration, Min billable object size, Monitoring and auto-tiering fees, and Retrieval fees. The 'Min storage duration' column header is highlighted with an orange circle. The table contains three rows of data:

	Availability Zones	Min storage duration	Min billable object size	Monitoring and auto-tiering fees	Retrieval fees
data (more than once a month)	≥ 3	-	-	-	-
unknown access	≥ 3	-	-	Per-object fees apply for objects ≥ 128 KB	-
data (once a month)	≥ 3	30 days	128 KB	-	Per-GB fees apply

12 Click "Min billable object size"



The screenshot shows the 'Storage class' configuration page for Amazon S3. The layout is identical to the previous screenshot, with the same navigation bar, search bar, sidebar, and main configuration area. The 'Min billable object size' column header is highlighted with an orange circle. The table data remains the same as in the previous screenshot.

	Availability Zones	Min storage duration	Min billable object size	Monitoring and auto-tiering fees	Retrieval fees
data (more than once a month)	≥ 3	-	-	-	-
unknown access	≥ 3	-	-	Per-object fees apply for objects ≥ 128 KB	-
data (once a month)	≥ 3	30 days	128 KB	-	Per-GB fees apply

13 Click "Monitoring and auto-tiering fees"

The screenshot shows the AWS S3 Pricing calculator interface. At the top, there's a navigation bar with links to IAM, AWS Budgets, AWS Cost Explorer, RDS, Route 53, DynamoDB, Amazon SageMaker, and Lambda. Below the navigation bar, there's a message about encryption settings and tags. The main area displays a table comparing different storage classes based on Availability Zones, Min storage duration, Min billable object size, and Retrieval fees. The 'Monitoring and auto-tiering fees' column is highlighted with an orange circle.

Availability Zones	Min storage duration	Min billable object size	Monitoring and auto-tiering fees	Retrieval fees
≥ 3	-	-	-	-
≥ 3	-	-	Per-object fees apply for objects >= 128 KB	-
≥ 3	30 days	128 KB	-	Per-GB fees

14 Click "Retrieval fees"

15 Click "Standard"

SPECIFY STORAGE CLASS, ENCRYPTION SETTINGS, TAGS, AND MORE.

Storage class

Amazon S3 offers a range of storage classes designed for different use cases. [Learn more](#) or see [Amazon S3 pricing](#).

Storage class	Designed for	Availability Zones	Min storage duration	More
<input checked="" type="radio"/> Standard	Frequently accessed data (more than once a month) with milliseconds access	≥ 3	-	-
<input type="radio"/> Intelligent-Tiering	Data with changing or unknown access patterns	≥ 3	-	-
<input type="radio"/> Standard-IA	Infrequently accessed data (once a month) with milliseconds access	≥ 3	30 days	1
<input type="radio"/> One Zone-IA	Recreatable, infrequently accessed data (once a month) stored in a single	1	30 days	1

16 Click "Upload"

PERMISSIONS FOR OBJECTS. [Learn more](#)

ADD ANOTHER FILE

ADD A TAG (key-value) PAIR. [Learn more](#)

Cancel **Upload**

17

Click "coffee.jpg"

The screenshot shows the AWS S3 'Files and folders' view. At the top, there are tabs for 'Files and folders' (which is selected) and 'Configuration'. Below the tabs, a search bar contains the placeholder 'Find by name'. A table lists one item: 'coffee.jpg'. The table has columns for 'Name', 'Folder', and 'Type'. The 'Name' column shows 'coffee.jpg', the 'Folder' column shows a dash, and the 'Type' column shows 'image/jpeg'. An orange circle highlights the 'coffee.jpg' entry in the list.

18

Click "Edit"

The screenshot shows the AWS S3 'Object Properties' page for the file 'coffee.jpg'. The top navigation bar includes links for IAM, AWS Budgets, AWS Cost Explorer, RDS, Route 53, DynamoDB, Amazon SageMaker, and Lambda. The main content area displays various settings for the object. On the left, there's a sidebar with sections like 'Object Lock retention mode', 'Default retention period', 'Storage class', 'Server-side encryption settings', 'Additional checksums', and 'Tags (0)'. On the right, specific details are shown: 'Object Lock retention mode' (Disabled), 'Default retention period' (Objects will be prevented from being overwritten or deleted for the duration of the retention period), 'Storage class' (Standard), 'Server-side encryption settings' (Encryption type: SSE-S3), 'Additional checksums' (Off), and 'Tags (0)'. An 'Edit' button is located next to the 'Storage class' section, which is highlighted with an orange circle.

19 Click this radio button.

	Storage class	Designed for	Availability Zones	Min storage duration	Notes
<input checked="" type="radio"/>	Standard	Frequently accessed data (more than once a month) with milliseconds access	≥ 3	-	-
<input type="radio"/>	Intelligent-Tiering	Data with changing or unknown access patterns	≥ 3	-	-
<input type="radio"/>	Standard-IA	Infrequently accessed data (once a month) with milliseconds access	≥ 3	30 days	1
<input type="radio"/>	One Zone-IA	Recreatable, infrequently accessed data (once a month) stored in a single Availability Zone with milliseconds access	1	30 days	1
<input type="radio"/>	Glacier Instant Retrieval	Long-lived archive data accessed once a quarter with instant retrieval in milliseconds	≥ 3	90 days	1
<input type="radio"/>	Glacier Flexible Retrieval	Long-lived archive data accessed once a year with retrieval of minutes to hours	≥ 3	90 days	-
<input type="radio"/>	Reduced redundancy	Noncritical, frequently accessed data with milliseconds access (not recommended as S3 Standard is more cost effective)	≥ 3	-	-

20 Click "Save changes"

The screenshot shows the AWS S3 console with the 'Standard-IA' storage class selected. Below the table, there is a 'Specified objects' section showing a single file named 'coffee.jpg'. At the bottom right of the page, the 'Save changes' button is highlighted with an orange circle.

Name	Type	Last modified	Size	Storage class
coffee.jpg	jpg	November 3, 2023, 22:12:00 (UTC+01:00)	108.4 KB	Standard

Save changes

21 Click "s3://mydemobucket-test1234"

Edit storage class: status [Info](#)

ⓘ The information below will no longer be available after you navigate away from this page.

Summary

Source

s3://mydemobucket-test1234

Successfully edited

✓ 1 object, 108.4 KB

[Failed to edit](#)

[Configuration](#)

✖ Failed to edit (0)

Find objects by name

22 Click "Management"

The screenshot shows the AWS S3 console for the bucket 'mydemobucket-test1234'. The 'Management' tab is highlighted with a red circle. The 'Objects' tab is also visible. The 'Objects' section displays one item: 'coffee.jpg' (Type: jpg). The item was last modified on November 3, 2023, at 22:12:18 (UTC+01:00).

Name	Type	Last modified
coffee.jpg	jpg	November 3, 2023, 22:12:18 (UTC+01:00)

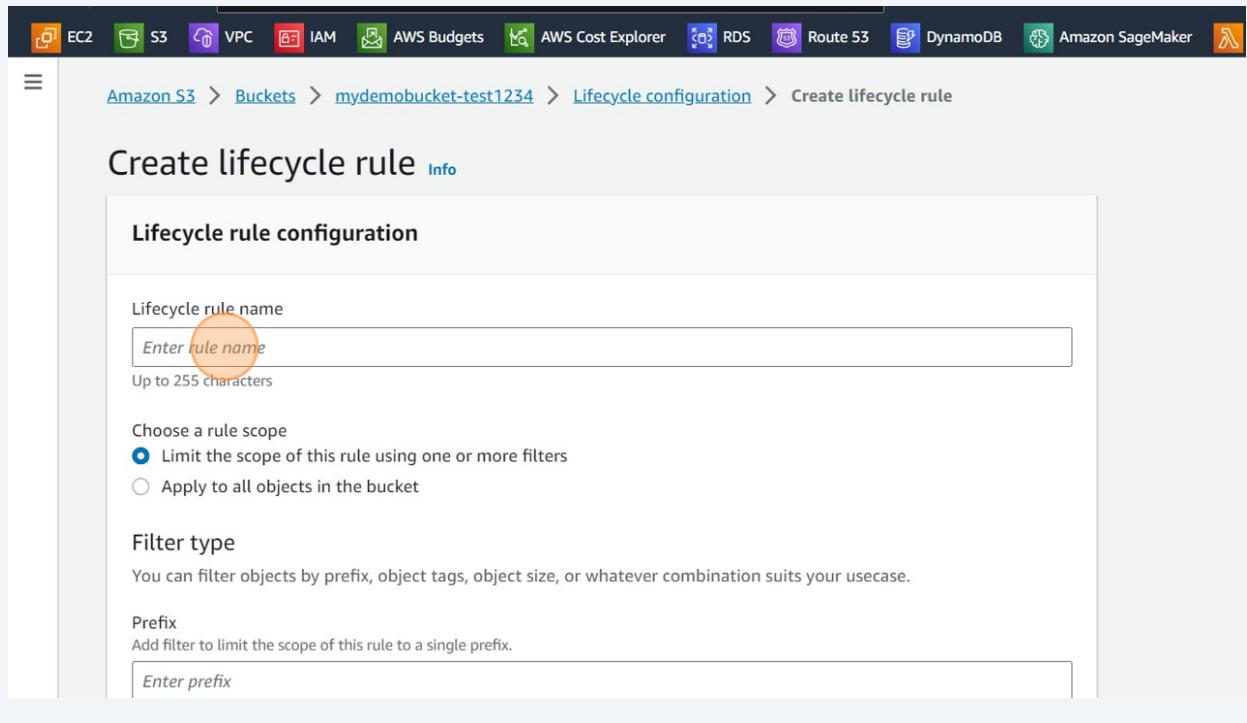
23 Click "Lifecycle rules"

The screenshot shows the Amazon S3 Management console. On the left, there's a sidebar with 'Amazon S3' at the top, followed by 'Buckets', 'Access Points', 'Object Lambda Access Points', 'Multi-Region Access Points', 'Batch Operations', 'IAM Access Analyzer for S3', and 'Block Public Access settings for this account'. Below that is a 'Storage Lens' section with 'Dashboards' and 'AWS Organizations settings'. At the bottom of the sidebar is a 'Feature spotlight' section with a '7' icon. The main area shows the path 'Amazon S3 > Buckets > mydemobucket-test1234'. The bucket name 'mydemobucket-test1234' is displayed prominently. Below it, a red button says 'Publicly accessible'. A navigation bar below the path includes 'Objects', 'Properties', 'Permissions', 'Metrics', 'Management' (which is underlined), and 'Access Points'. Under 'Management', there's a section titled 'Lifecycle rules (0)' with a note: 'Use lifecycle rules to define actions you want Amazon S3 to take during an object's lifetime such as transitioning objects to another storage class, archiving them, or deleting them after a specified period of time.' It includes buttons for 'View details', 'Edit', 'Delete', 'Actions', and 'Create lifecycle rule'. A table below shows columns for 'Lifecycle rule name', 'Status', 'Scope', and 'Current version actions'. A message 'There are no lifecycle rules for this bucket.' is displayed. At the bottom of the main area is a 'Feature spotlight' section with a '7' icon.

24 Click "Create lifecycle rule"

The screenshot shows the 'Create lifecycle rule' dialog. At the top, there are buttons for 'Edit', 'Delete', 'Actions', and 'Create lifecycle rule'. Below that is a table with columns for 'Status', 'Scope', 'Current version actions', 'Noncurrent versions actions', and 'Expired object delete markers'. A message 'No lifecycle rules' is displayed. Below the table, a message says 'There are no lifecycle rules for this bucket.' A large orange circle highlights the 'Create lifecycle rule' button, which is also highlighted with a blue border. At the bottom, there's a note about replication rules and a 'Create replication rule' button, followed by a table for defining replication parameters.

25 Click the "Lifecycle rule name" field.



The screenshot shows the AWS S3 console with the path: Amazon S3 > Buckets > mydemobucket-test1234 > Lifecycle configuration > Create lifecycle rule. The 'Lifecycle rule configuration' section is displayed. The 'Lifecycle rule name' field, which contains 'Enter rule name', is circled in red. Below it, the text 'Up to 255 characters' is visible. Under 'Choose a rule scope', the radio button for 'Limit the scope of this rule using one or more filters' is selected. In the 'Filter type' section, there is a 'Prefix' field with 'Enter prefix' placeholder text.

26 Type "rule"

- 27 Click "Apply to all objects in the bucket"

Lifecycle rule configuration

Lifecycle rule name

rule

Up to 255 characters

Choose a rule scope

- Limit the scope of this rule using one or more filters
- Apply to all objects in the bucket

Filter type

You can filter objects by prefix, object tags, object size, or whatever combination suits your usecase.

Prefix

Add filter to limit the scope of this rule to a single prefix.

Enter prefix

Don't include the bucket name in the prefix. Using certain characters in key names can cause problems with some applications and protocols. [Learn more](#)

- 28 Click "I acknowledge that this rule will apply to all objects in the bucket."

Choose a rule scope

- Limit the scope of this rule using one or more filters
- Apply to all objects in the bucket



⚠️ Apply to all objects in the bucket

If you want the rule to apply to specific objects, you must use a filter to identify those objects. Choose "Limit the scope of this rule using one or more filters". [Learn more](#)

- I acknowledge that this rule will apply to all objects in the bucket.

Lifecycle rule actions

Choose the actions you want this rule to perform. Per-request fees apply. [Learn more](#) or see [Amazon S3 pricing](#)

- Move current versions of objects between storage classes
- Move noncurrent versions of objects between storage classes
- Expire current versions of objects
- Permanently delete noncurrent versions of objects
- Delete expired object delete markers or incomplete multipart uploads

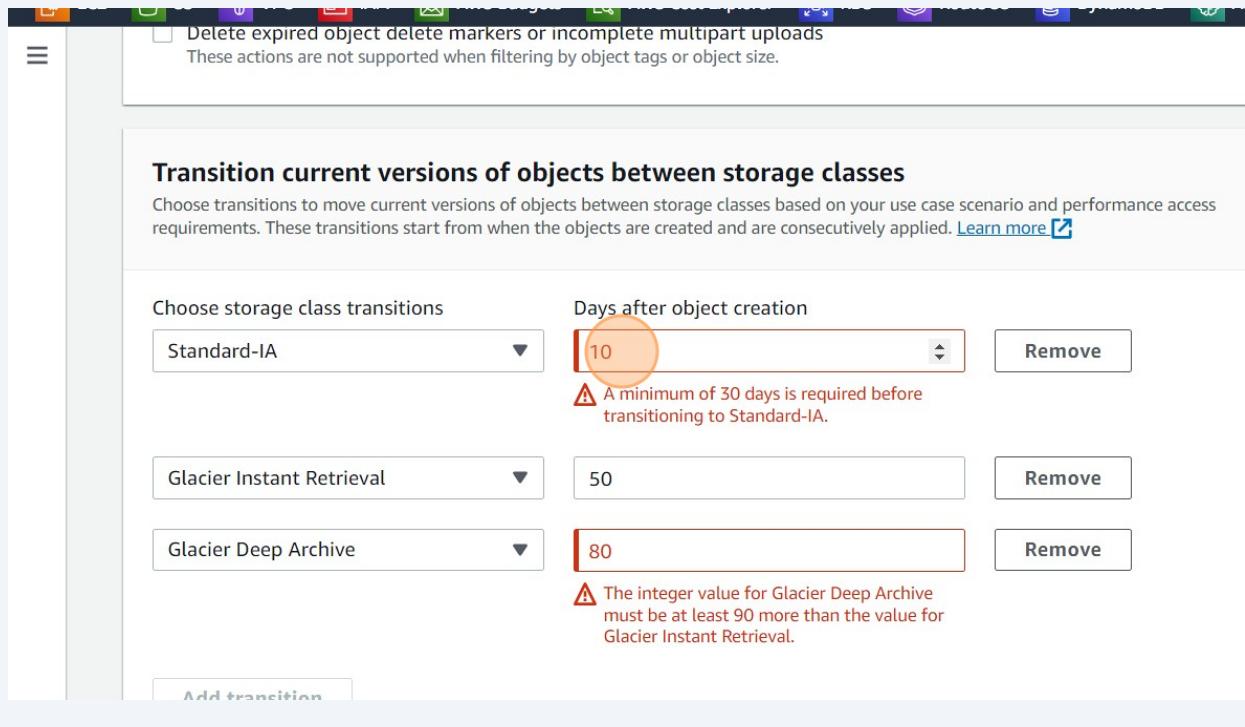
- 29 Click the "Move current versions of objects between storage classes" field.

The screenshot shows the 'Lifecycle rule actions' section of the AWS S3 console. At the top, there is a warning message: 'If you want the rule to apply to specific objects, you must use a filter to identify those objects. Choose "Limit the scope of this rule using one or more filters". [Learn more](#)' with a link icon. Below this is a checkbox: 'I acknowledge that this rule will apply to all objects in the bucket.' A yellow circle highlights the first action in the list: 'Move current versions of objects between storage classes'. The list also includes: 'Move noncurrent versions of objects between storage classes', 'Expire current versions of objects', 'Permanently delete noncurrent versions of objects', and 'Delete expired object delete markers or incomplete multipart uploads'. A note at the bottom states: 'These actions are not supported when filtering by object tags or object size.' Below the list is a section titled 'Review transition and expiration actions' with tabs for 'Current version actions' and 'Noncurrent versions actions'.

- 30 Click "Transition current versions of objects between storage classes"

The screenshot shows the 'Transition current versions of objects between storage classes' section of the AWS S3 console. It lists the same actions as the previous screenshot: 'Move current versions of objects between storage classes', 'Move noncurrent versions of objects between storage classes', 'Expire current versions of objects', 'Permanently delete noncurrent versions of objects', and 'Delete expired object delete markers or incomplete multipart uploads'. A note at the bottom states: 'These actions are not supported when filtering by object tags or object size.' Below this is a section titled 'Transition current versions of objects between storage classes' with a note: 'Choose transitions to move current versions of objects between storage classes based on your use case scenario and performance access requirements. These transitions start from when the objects are created and are consecutively applied. [Learn more](#)' with a link icon. It includes fields for 'Choose storage class transitions' (set to 'Standard-IA') and 'Days after object creation' (with a dropdown menu and a 'Number of days' input field containing 'Number of days' and a 'Remove' button). A validation message 'A valid integer value is required.' is shown below the input field. There is also an 'Add transition' button.

- 31** Click the "Days after object creation" field.



- 32** Type "30"

- 33** Click the "Days after object creation" field.

The screenshot shows the 'Transition current versions of objects between storage classes' section. It lists three storage class transitions:

- Standard-IA:** Days after object creation: 30. This field is highlighted with a blue border.
- Glacier Instant Retrieval:** Days after object creation: 50. This field is highlighted with an orange circle.
- Glacier Deep Archive:** Days after object creation: 80. This field has a red warning message below it: "The integer value for Glacier Instant Retrieval must be at least 30 more than the value for Standard-IA."

Below the transitions is an 'Add transition' button.

- 34** Type "80"

- 35** Click the "Days after object creation" field.

Transition current versions of objects between storage classes

Choose transitions to move current versions of objects between storage classes based on your use case scenario and performance access requirements. These transitions start from when the objects are created and are consecutively applied. [Learn more](#)

Choose storage class transitions

Standard-IA

Days after object creation

30

Remove

Glacier Instant Retrieval

80

Remove

Glacier Deep Archive

80

Remove

 The integer value for Glacier Deep Archive must be at least 90 more than the value for Glacier Instant Retrieval.

Add transition



Transitioning small objects to Glacier Flexible Retrieval (formerly Glacier) or Glacier Deep Archive will incur a per object cost

You will be charged for each object you transition to S3 Glacier Flexible Retrieval (formerly Glacier) or S3 Glacier Deep Archive. A fixed amount of storage is also added to each object to accommodate metadata

- 36** Type "180"

37

Click "Day 0"

- I acknowledge that this lifecycle rule will incur a one-time lifecycle request cost per object if it transitions small objects.

Review transition and expiration actions

Current version actions

Day 0

- Objects uploaded



Day 30

- Objects move to Standard-IA



Noncurrent versions actions

Day 0

No actions defined.

38

Click "Day 30"

Review transition and expiration actions

Current version actions

Day 0

- Objects uploaded



Day 30

- Objects move to Standard-IA



Day 80

- Objects move to Glacier Instant Retrieval

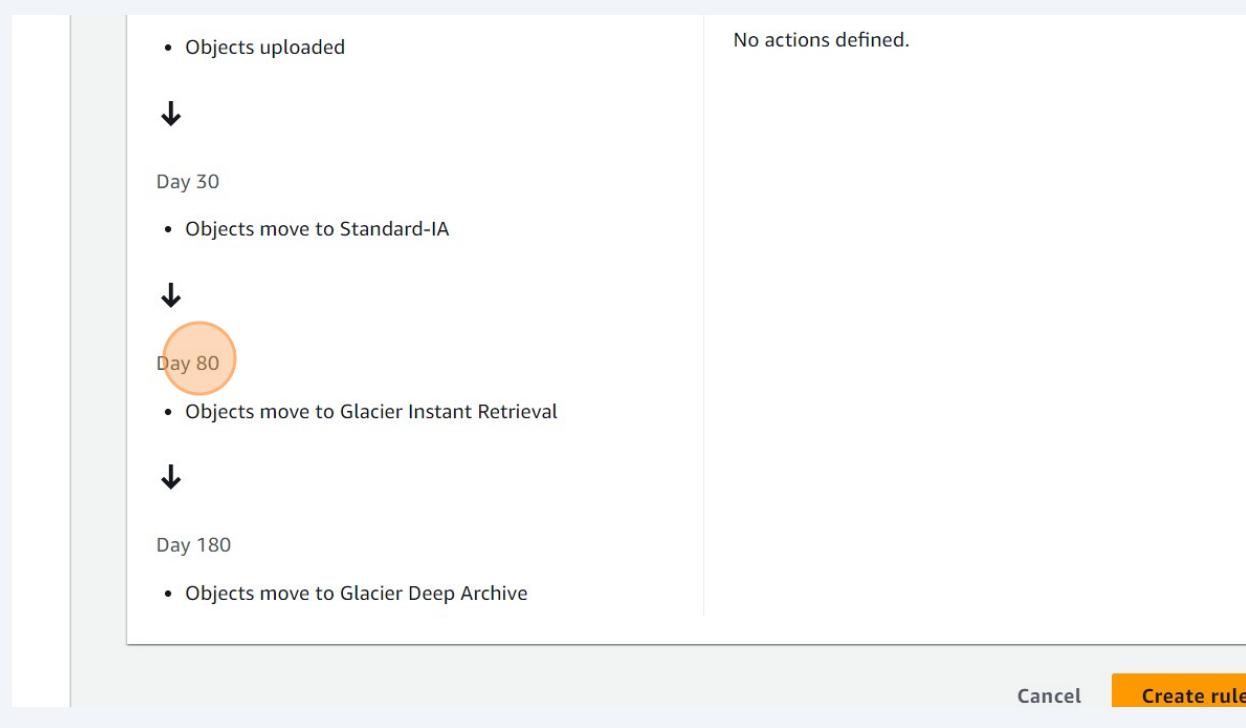


Noncurrent versions actions

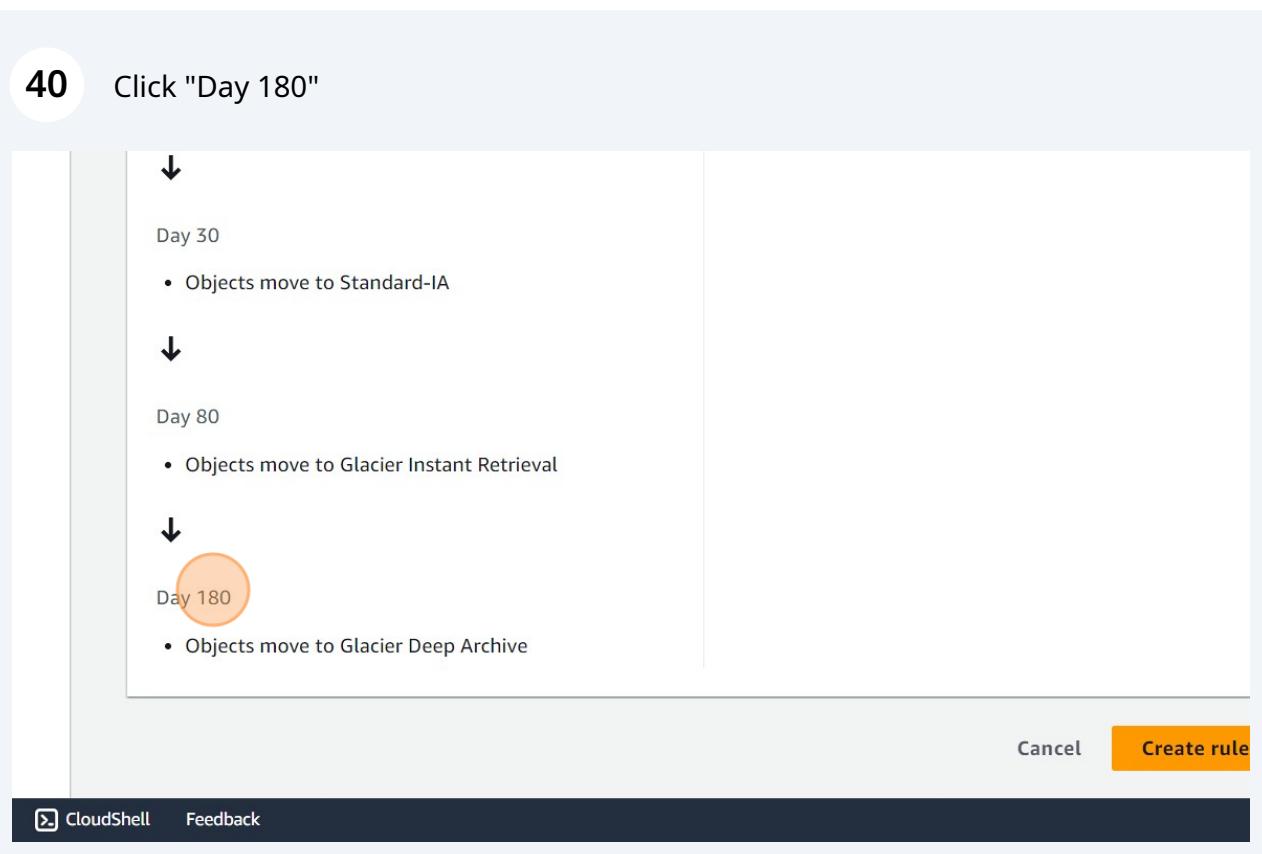
Day 0

No actions defined.

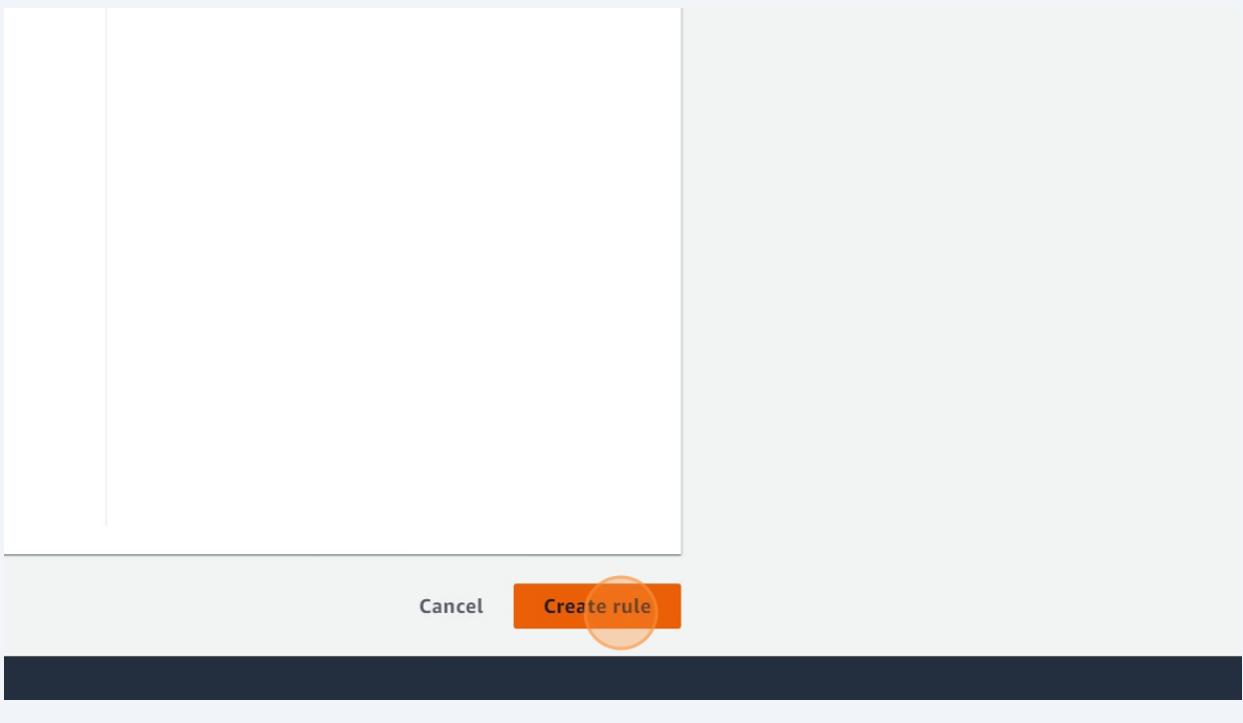
39 Click "Day 80"



40 Click "Day 180"



41 Click "Create rule"



42 Click "Lifecycle rules"

= **The lifecycle configuration was updated. Lifecycle rule "rule" was successfully added.**
It may take some time for the configuration to be updated. Press the refresh button if changes to the rule are not displayed.

[Amazon S3](#) > [Buckets](#) > [mydemobucket-test1234](#) > Lifecycle configuration

Lifecycle configuration Info

To manage your objects so that they are stored cost effectively throughout their lifecycle, configure their lifecycle. A lifecycle

Lifecycle rules (1)				
Use lifecycle rules to define actions you want Amazon S3 to take during an object's lifetime such as transitioning objects to another storage class.				
	View details	Edit	Delete	Actions ▾
<input type="text"/> Find lifecycle rules by name				
Lifecycle rule name	Status	Scope	Current version actions	
<input type="radio"/> rule	Enabled	Entire bucket	Transition to Standard-IA, then Glacier Instant Retrieval, then Glacier Deep Archive	Actions ▾

43

Click "Transition to Standard-IA, then Glacier Instant Retrieval, then Glacier Deep Archive"

The screenshot shows the AWS S3 Lifecycle Rules configuration interface. At the top, there are buttons for 'Details', 'Edit', 'Delete', 'Actions ▾', and a prominent orange 'Create lifecycle rule' button. Below these is a search bar with the placeholder text 'Search by name'. The main area displays a table of lifecycle rules.

name	Status	Scope	Current version actions	Noncurrent versions actions
	<input checked="" type="checkbox"/> Enabled	Entire bucket	Transition to Standard-IA, then Glacier Instant Retrieval, then Glacier Deep Archive	-