



Admin User Manual

Table of contents

[Admin User Manual](#)

[Table of contents](#)

[1. Introduction](#)

[2. Getting Started](#)

[2.1 Requirements](#)

[2.2 AWS Account Login](#)

[Steps to Log in to the AWS Management Console](#)

[2.3 Connecting to the Database](#)

[Steps to connect to the Database using DBeaver](#)

[3. Performing Admin actions](#)

[3.1 Scanning the artefact](#)

[3.2 Adding objects to the S3 Bucket](#)

[3.3 Deleting objects from the S3 Bucket](#)

[3.4 Adding the artefact to the DB](#)

[3.5 Editing an artefact on the DB](#)

[3.6 Deleting an artefact on the DB](#)

[4. Contact and Repository](#)

1. Introduction

Welcome to the Admin User Manual for the ARTefacts Progressive Web App. This guide is designed to help administrators effectively manage and maintain the app's features, users, and artefact content.

ARTefacts is a Progressive Web App (PWA) that enhances the museum experience by combining culture, education, and technology. It allows users to explore ARTefacts through interactive digital tools.

Users can view high-quality 3D models, read detailed information about artists and artworks, and discover related pieces currently on display. ARTefacts transforms static exhibitions into dynamic, accessible experiences.

This manual is intended for administrators with AWS Cloud access, providing clear instructions for updating artefact data, uploading media, and maintaining the digital collection.

2. Getting Started

2.1 Requirements

To complete this task, you will need:

- Login details to the aws account
- Login details to aws RDS instance
- DBeaver
- LiDAR-enabled iPhone

2.2 AWS Account Login

Steps to Log in to the AWS Management Console

1. Open the AWS Login Page
 - o Go to the aws console site [here](#)
 - o Click “**Sign in**” (top right corner)
2. Enter Your AWS Account Credentials
 - o Account ID, IAM username, and password
 - o Click “**Sign in**”
3. Complete Multi-Factor Authentication (MFA)
 - o If MFA is required, enter the temporary code from your authenticator app (e.g., Google Authenticator, Authy) or SMS.
4. Access the AWS Management Console
 - o Once authenticated, you'll land on the AWS dashboard as seen below.

The screenshot shows the AWS Console Home page. On the left, there's a sidebar with 'Recently visited' services: S3, Cognito, CloudWatch, IAM, Lambda, API Gateway, Billing and Cost Management, and Aurora and RDS. Below this is a 'View all services' link. To the right, there are four main sections: 'Applications (0)', 'AWS Health (0)', and 'Cost and usage'. The 'Applications' section has a 'Create application' button. The 'AWS Health' section shows 0 open issues over the past 7 days. The 'Cost and usage' section shows current month costs and forecasted month end costs, both with 'Access denied' status.

2.3 Connecting to the Database

Once the database is up you can connect to the database by following these steps

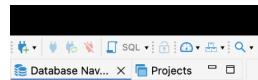
Steps to connect to the Database using DBeaver

1. Open the AWS RDS dashboard.
2. Find the database named "artefacts-2" in the Databases list and click it to get the details.

The screenshot shows the 'Databases' section of the Aurora and RDS service. It lists one database named 'artefacts-2', which is currently available. The database details include MySQL Community Server as the engine, af-south-1c as the region, and db.t4g.micro as the instance type.

3. Note down the endpoint (hostname) and port (usually 3306) in the Connectivity & security tab.

4. Open your DBeaver, there will be a connection icon with a plus on the top left of the application, click on that.



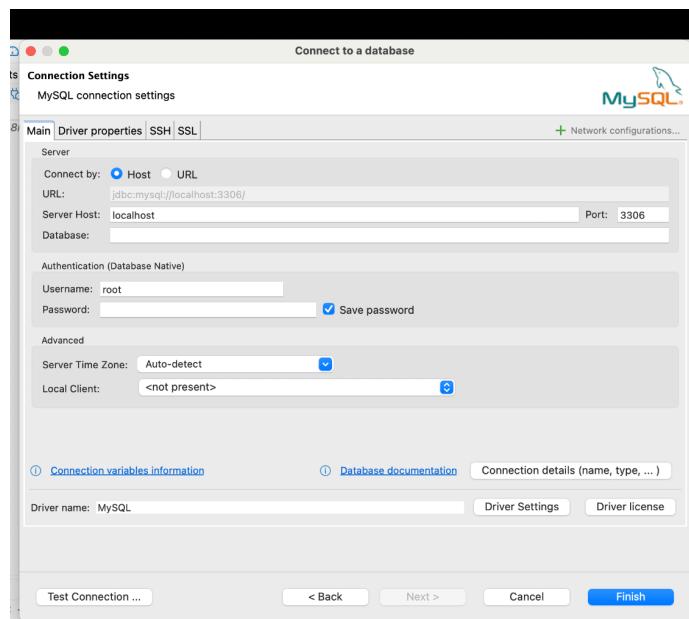
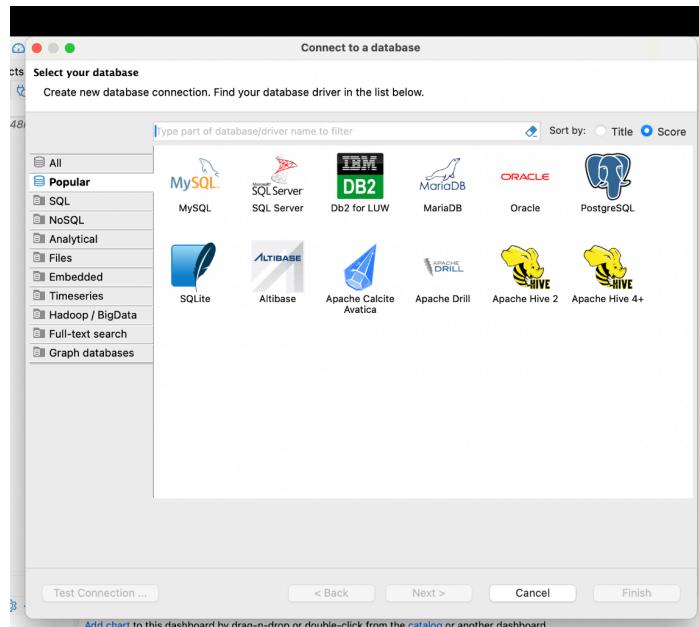
5. Create a new MySQL connection using these details:

Host: The RDS endpoint you noted.

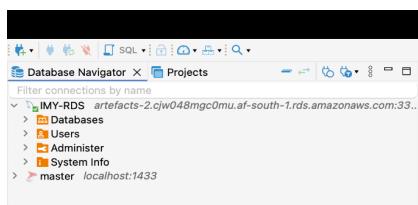
Port: 3306.

Username: Your admin username.

Password: Your admin password.



6. Test and save the connection.
7. Once connected Dbeaver should look like the image below



Troubleshooting:

- If the connection fails:
 - Check if the database is running.

3. Performing Admin actions

3.1 Scanning the artefact

Steps to capture a 3D scan using Polycam with LiDAR on your iPhone or iPad:

1. Open Polycam:
 - Download the Polycam app from the App Store.
 - Open the app and sign up or log in. A free account is enough for basic scans.
2. Start a new LiDAR scan:
 - Tap the "Scan" button (the yellow circle at the bottom).
 - If prompted, select "LiDAR" mode.
3. Scan your subject:
 - Hold your device steady and move slowly around the object or space.
 - Stay about 1 to 2 meters away for rooms, or around 0.5 meters for smaller objects.
 - Watch the real-time mesh and scan from multiple angles to fill in gaps.
 - Avoid scanning shiny or transparent surfaces, as LiDAR has trouble with reflections.
4. Finish and process the scan:
 - Tap "Stop" when you're done (you can also pause and resume later).
 - Polycam will automatically process the scan. This usually takes a few seconds.
5. Export or share your scan:
 - Tap "Export" and choose a format:
 - GLB
 - You can save the file locally.

Pro tips for better scans:

- Good lighting helps. Avoid scanning in the dark.
- Move slowly. Fast movement can cause blurry scans.
- Start with small objects to practice before scanning large spaces.

Troubleshooting:

- If the mesh looks broken, try rescanning the missing areas or use the "Fill Holes" tool.
- If textures are blurry, turn on "High Resolution Texture" in the settings (this may require a Pro subscription).

3.2 Adding objects to the S3 Bucket

1. Open S3 Dashboard:

- Go to <https://s3.console.aws.amazon.com/>
- Click "Buckets" → Select artefacts-1 (make sure the region is set to af-south-1)

The screenshot shows the AWS S3 console interface. On the left, there's a sidebar with options like 'General purpose buckets', 'Directory buckets', 'Table buckets', etc. The main area is titled 'General purpose buckets' and shows two buckets: 'artefact-1' and 'hex-calculator'. Each bucket entry includes its name, AWS Region (Africa (Cape Town) for artefact-1, Europe (Stockholm) for hex-calculator), IAM Access Analyzer link, and Creation date.

Name	AWS Region	IAM Access Analyzer	Creation date
artefact-1	Africa (Cape Town) af-south-1	View analyzer for af-south-1	March 19, 2025, 18:02:04 (UTC+02:00)
hex-calculator	Europe (Stockholm) eu-north-1	View analyzer for eu-north-1	May 4, 2025, 16:24:56 (UTC+02:00)

2. Upload Files:

- Click "Upload" → "Add files" or drag files into the upload area

The screenshot shows the AWS S3 'Objects (4)' page. It lists four objects with their names and file types. Below the list are buttons for 'Actions', 'Create folder', and 'Upload'.

Name	Type
artefact-1	Image
hex-calculator	Image
image1.jpg	Image
image2.jpg	Image

The screenshot shows the AWS S3 'Upload' interface. At the top, there's a search bar and navigation links for 'Amazon S3 > Buckets > artefact-1 > Upload'. The main area is titled 'Upload' with a 'Info' link. A note says 'Add the files and folders you want to upload to S3. To upload a file larger than 160GB, use the AWS CLI, AWS SDKs or Amazon S3 REST API. Learn more'.

Files and folders (0)
All files and folders in this table will be uploaded.

Name	Type	Size
No files or folders		You have not chosen any files or folders to upload.

Destination [Info](#)
Destination
[s3://artefact-1](#)

Destination details
Bucket settings that impact new objects stored in the specified destination.

Permissions
Grant public access and access to other AWS accounts.

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3. Verify Upload:

- Files will appear in the bucket
- Click the filename to see details (e.g., URL, size)

Object overview

Owner
1412d8037ad13a9ea2eb8633ebf833054b9b87c8c12302f169db547239b4995f

AWS Region
Africa (Cape Town) af-south-1

Last modified
May 18, 2025, 17:28:35 (UTC+02:00)

Size
504.9 KB

Type
glb

Key
[objects/default.glb](#)

S3 URI
[s3://artefact-1/objects/default.glb](#)

Amazon Resource Name (ARN)
[arn:aws:s3:::artefact-1/objects/default.glb](#)

Entity tag (Etag)
[3dc99b211df27ad2059c252a8a9eda21](#)

Object URL
<https://artefact-1.s3.af-south-1.amazonaws.com/objects/default.glb>

3.3 Deleting objects from the S3 Bucket

1. Open S3 Dashboard:

- Go to <https://s3.console.aws.amazon.com/>
- Click "Buckets" → Select artefacts-1 (make sure the region is set to af-south-1)

2. Navigate to Object:

- Open artefacts-1

- Browse to the file (e.g., objects/file.glb)
- Check the box next to the file

The screenshot shows the AWS S3 'Objects' list interface. At the top, there are several buttons: 'Copy S3 URI', 'Copy URL', 'Download', 'Open', 'Delete', 'Actions', 'Create folder', and 'Upload'. Below this is a search bar with placeholder text 'Find objects by prefix'. The main area is a table with columns: Name, Type, Last modified, Size, and Storage class. The table lists ten objects, with 'default.glb' being the selected item (indicated by a checked checkbox in the first column). The table data is as follows:

	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	amanda.glb	glb	May 18, 2025, 17:33:07 (UTC+02:00)	4.1 MB	Standard
<input type="checkbox"/>	big-headed-girl.glb	glb	May 18, 2025, 17:33:08 (UTC+02:00)	1.4 MB	Standard
<input type="checkbox"/>	bronze-old-dude.glb	glb	May 18, 2025, 17:33:09 (UTC+02:00)	1.5 MB	Standard
<input type="checkbox"/>	brown-dude-newspaper.glb	glb	May 18, 2025, 17:33:11 (UTC+02:00)	4.6 MB	Standard
<input checked="" type="checkbox"/>	default.glb	glb	May 18, 2025, 17:28:35 (UTC+02:00)	504.9 KB	Standard
<input type="checkbox"/>	dude-holding-skull.glb	glb	May 18, 2025, 17:33:14 (UTC+02:00)	1.6 MB	Standard
<input type="checkbox"/>	mother-and-child.glb	glb	May 18, 2025, 17:33:18 (UTC+02:00)	3.2 MB	Standard
<input type="checkbox"/>	weird-green-thing.glb	glb	May 18, 2025, 17:33:23 (UTC+02:00)	2.1 MB	Standard
<input type="checkbox"/>	white-dude-couch.glb	glb	May 18, 2025, 17:33:27 (UTC+02:00)	4.2 MB	Standard

3. Delete File:

- Click "Delete"
- Confirm deletion by typing "**permanently delete**"
- Click "Delete objects"

The screenshot shows the 'Delete objects' confirmation dialog. At the top, there is a warning message in a box:

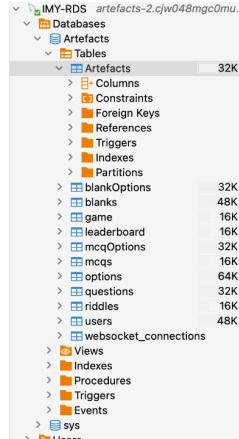
If a folder is selected for deletion, all objects in the folder will be deleted, and any new objects added while the delete action is in progress might also be deleted. If an object is selected for deletion, any new objects with the same name that are uploaded before the delete action is completed will also be deleted.
Deleting the specified objects can't be undone.

Below the warning is a section titled 'Specified objects' which lists the selected object 'default.glb'. At the bottom, there is a section titled 'Permanently delete objects?' with a text input field containing the text 'permanently delete'. At the very bottom right are 'Cancel' and 'Delete objects' buttons.

3.4 Adding the artefact to the DB

1. Locate the ARTefacts table:

- In the Database Navigator panel on the left, expand the following:
IMY-RDS → Databases → Tables → ARTefacts
- Look for the ARTefacts table in the list.



2. Open the table editor:

- Right-click the ARTefacts table.
- Select "View Data" from the menu.

	ID	ArtistName	ArtistLifespan	ArtworkTitle	CreationYear	MediumFoundry	Category	CatalogNumber	Ac
Grid	1	19	Anton van Wouw	1862-1945	Kgosi Khama III	1926	Bronze	Sculpture	49238
Text	2	23	Abraham	1966-2007	Phenduka Mzalwane	1989	Bronze and Sandstone	Sculpture	502411
	3	24	Nell Kaye	1912-1969	Mother	1940	Wood	Sculpture	569409
Filt	4	25	Anton van Wouw	1862-1945	Onze Jan Celliers	1910	Bronze	Sculpture	575915
	5	26	Johan Thom	1976-Present	Self Portrait with Skull	1916	Bronze	Sculpture	789409
	6	27	Edoucho Villa	1930-2011	Mother and Child	1949	Resin	Sculpture	683345
	7	28	Norman Catherine	1949-Present	City Deep	1996	Painted Fiberglass	Sculpture	612895
	8	29	Anton van Wouw	1862-1945	Dooper Voortrekker	1898	Carra Marble	Sculpture	455403

3. Add a new row:

- In the toolbar at the bottom of the Data tab, click the "+" button (Add new row).
- A blank row will appear at the bottom of the table.

sys	Users	Administrator	Refresh	Save	Cancel	Export data	200	8	8 row(s) fetched - 0.033s, on 2025-06-22 at 20:51:03

4. Fill in the artefact details:

- Click each cell in the new row to enter the relevant data:
 - ArtistName: (Required) Full name of the artist (e.g., Claude Monet)
 - ArtistLifespan: Optional, format like "1840-1926"

- ArtworkTitle: (Required) Title of the artwork (e.g., Water Lilies)
- CreationYear: Optional, e.g., "1916" or "1914-1917"
- MediumFoundry: Optional, e.g., "Oil on canvas"
- Category: Optional, e.g., "Painting" or "Sculpture"
- CatalogNumber: Optional but must be unique, e.g., "CM-1916-001"
- AdditionalInfo: Optional notes or description
- ImageUrl: link to a JPEG or PNG image
- ObjectUrl: Optional; if blank, it defaults to a default GLB file

Grid	ID	ArtistName	ArtistLifespan	ArtworkTitle	CreationYear	MediumFoundry	Category	CatalogNumber	Ac
1	19	Anton van Wouw	1862-1945	Kgosi Khama III	1926	Bronze	Sculpture	49238	A bro
2	23	Abraham	1966-2007	Phenduka Mzalwane	1989	Bronze and Sandstone	Sculpture	502411	The Ir
3	24	Nell Kaye	1912-1969	Mother	1940	Wood	Sculpture	569409	This i
4	25	Anton van Wouw	1862-1945	Onze Jan Celliers	1910	Bronze	Sculpture	575915	This i
5	26	Johan Thom	1976-Present	Self Portrait with Skull	1916	Bronze	Sculpture	789409	This i
6	27	Eduoucho Villa	1930-2011	Mother and Child	1949	Resin	Sculpture	683345	This i
7	28	Norman Catherine	1949-Present	City Deep	1996	Painted Fiberglass	Sculpture	612895	This i
8	29	Anton van Wouw	1862-1945	Dooper Voortrekker	1898	Carra Marble	Sculpture	455403	This i
9	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]	[NULL]

3.5 Editing an artefact on the DB

1. Locate the ARTefacts table:

- In the Database Navigator panel on the left, expand the following:
IMY-RDS → Databases → Table → ARTefacts
- Look for the ARTefacts table in the list.

2. Open the table editor:

- Right-click the ARTefacts table.

- Select "View Data" from the menu.
3. Find the row in the table data
4. Update the artefact details:
- Click each cell in the new row to enter the relevant data:
 - ArtistName: (Required) Full name of the artist (e.g., Claude Monet)
 - ArtistLifespan: Optional, format like "1840-1926"
 - ArtworkTitle: (Required) Title of the artwork (e.g., Water Lilies)
 - CreationYear: Optional, e.g., "1916" or "1914-1917"
 - MediumFoundry: Optional, e.g., "Oil on canvas"
 - Category: Optional, e.g., "Painting" or "Sculpture"
 - CatalogNumber: Optional but must be unique, e.g., "CM-1916-001"
 - AdditionalInfo: Optional notes or description
 - ImageUrl: link to a JPEG or PNG image
 - ObjectUrl: Optional; if blank, it defaults to a default GLB file

6	27	Edoucho Villa	1930-2011	Mother and Child	1949	Resin	Sculpture	683345	This is a
7	28	Norman Catherine	1949-Present	City Deep	1996	Painted Fiberglass	Sculpture	612895	This is a
8	29	Anton van Wouw	1862-1945	Dooper Voortrekker	1898	Carra Marble	Sculpture	455403	This is a

5. Save the changes



3.6 Deleting an artefact on the DB

1. Locate the ARTefacts table:
- In the Database Navigator panel on the left, expand the following:
IMY-RDS → Databases → Table → ARTefacts

- Look for the ARTefacts table in the list.
2. Open the table editor:
- Right-click the ARTefacts table.
 - Select "View Data" from the menu.
3. Find the row and select it.
4. Under the tools click the delete icon with the red “-” minus symbol



5. Save the changes



4. Contact and Repository

If you encounter any issues following the steps or have questions, please contact the Artefacts team leader Thato Kalagobe using the student email below is the link to the repository :

- [GitHub Repository.](#)