User Manual

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1. Introduction

Welcome to the ARTefacts User Manual.
This guide is designed to help you navigate and make the most of the ARTefacts Progressive Web App (PWA), a digital tool created to enhance your experience with museum collections by allowing you to to interact with museum ARTefacts in immersive and meaningful ways.

ARTefacts blend technology with culture to bring ARTefacts to life. The app allows you to explore 3D models of ARTefacts, learn more about the artists behind the work, and discover related pieces within the collection. It offers an engaging, user-friendly interface that makes learning about history and art both accessible and enjoyable.

One of the app's key features is the Treasure Hunt Challenge, an interactive game that encourages users to solve riddles, answer questions, and use their device's camera to identify ARTefacts in augmented reality (AR). This feature turns your visit into a fun and educational adventure, rewarding curiosity and attention to detail.

ARTefacts also includes:

- A Home Page with featured ARTefacts and quick access to challenges
- A Camera Page for scanning ARTefacts and unlocking content
- A Leaderboard to track progress and compare scores
- A Profile Page to customise your avatar and username
- Secure authentication including sign-up, login, password recovery, and verification

This manual will guide you through each section of the app, offering clear steps and tips along the way. Whether you're here to learn, explore, or play, ARTefacts is here to make your museum visit more interactive, more personal, and more inspiring than ever before.
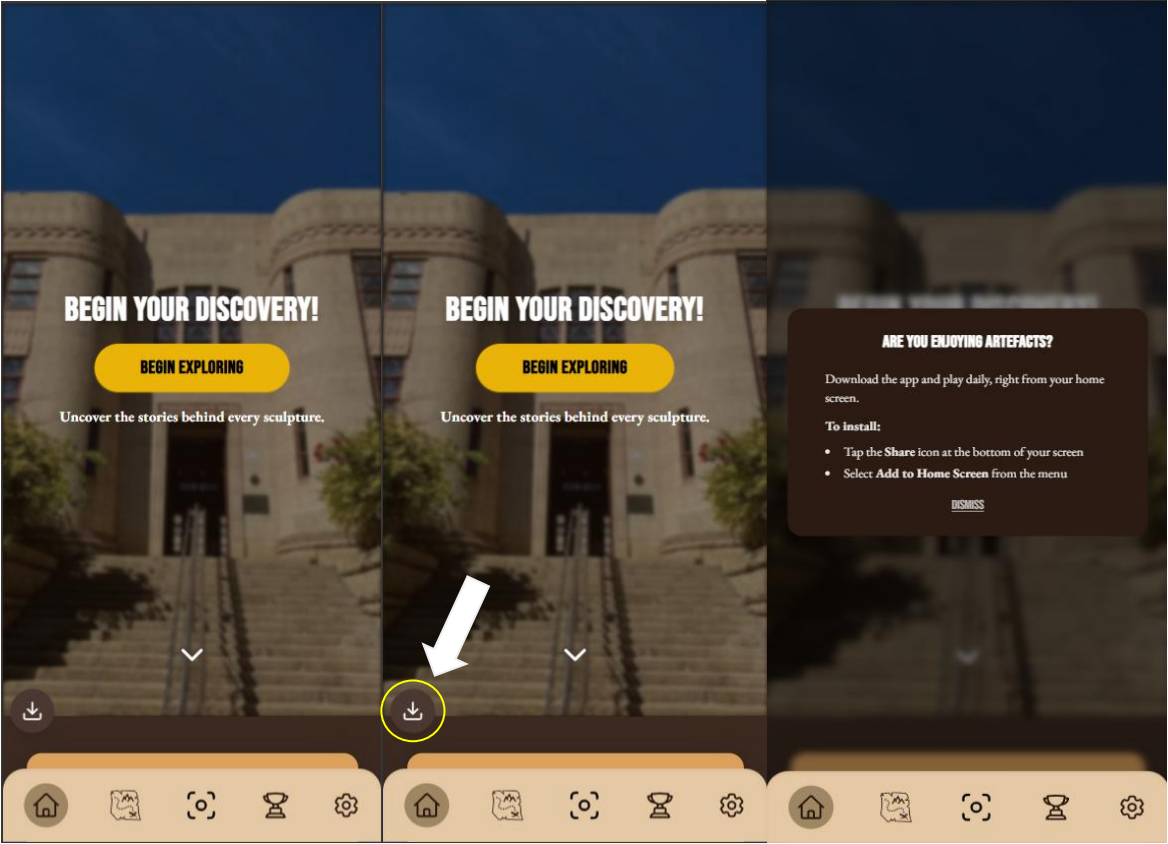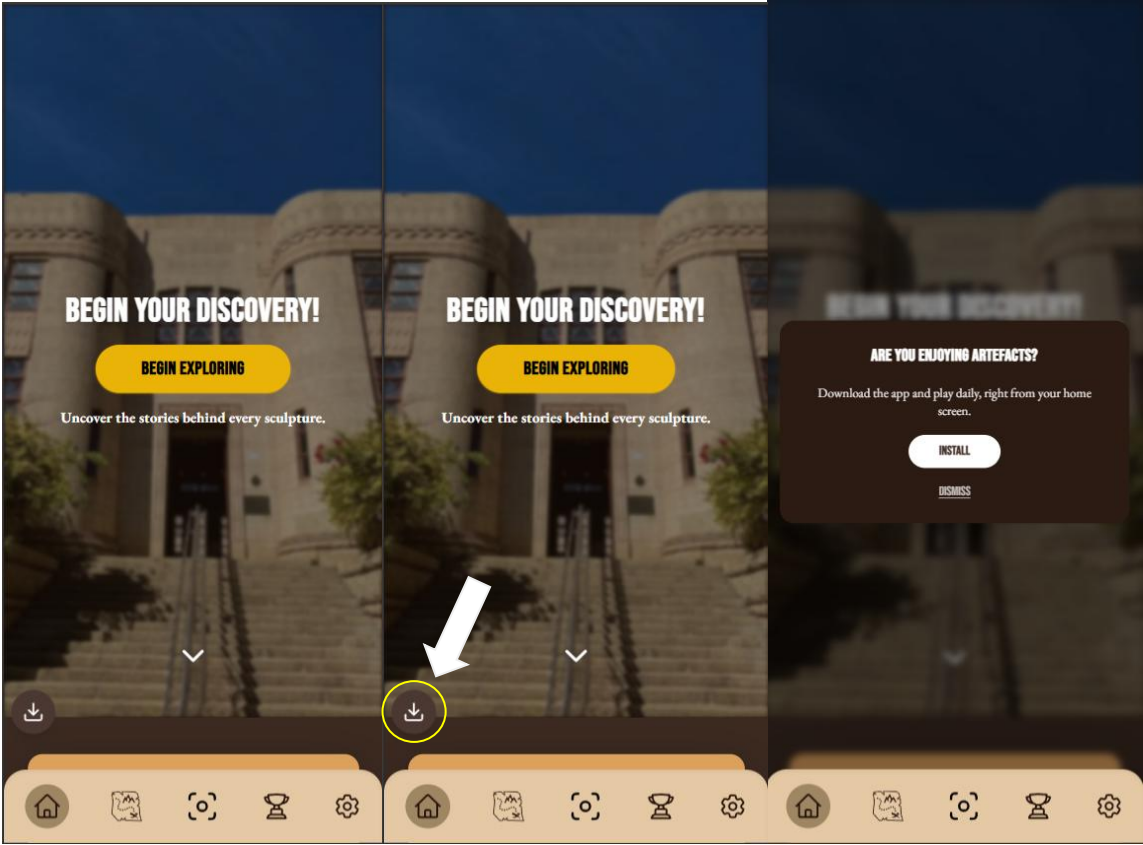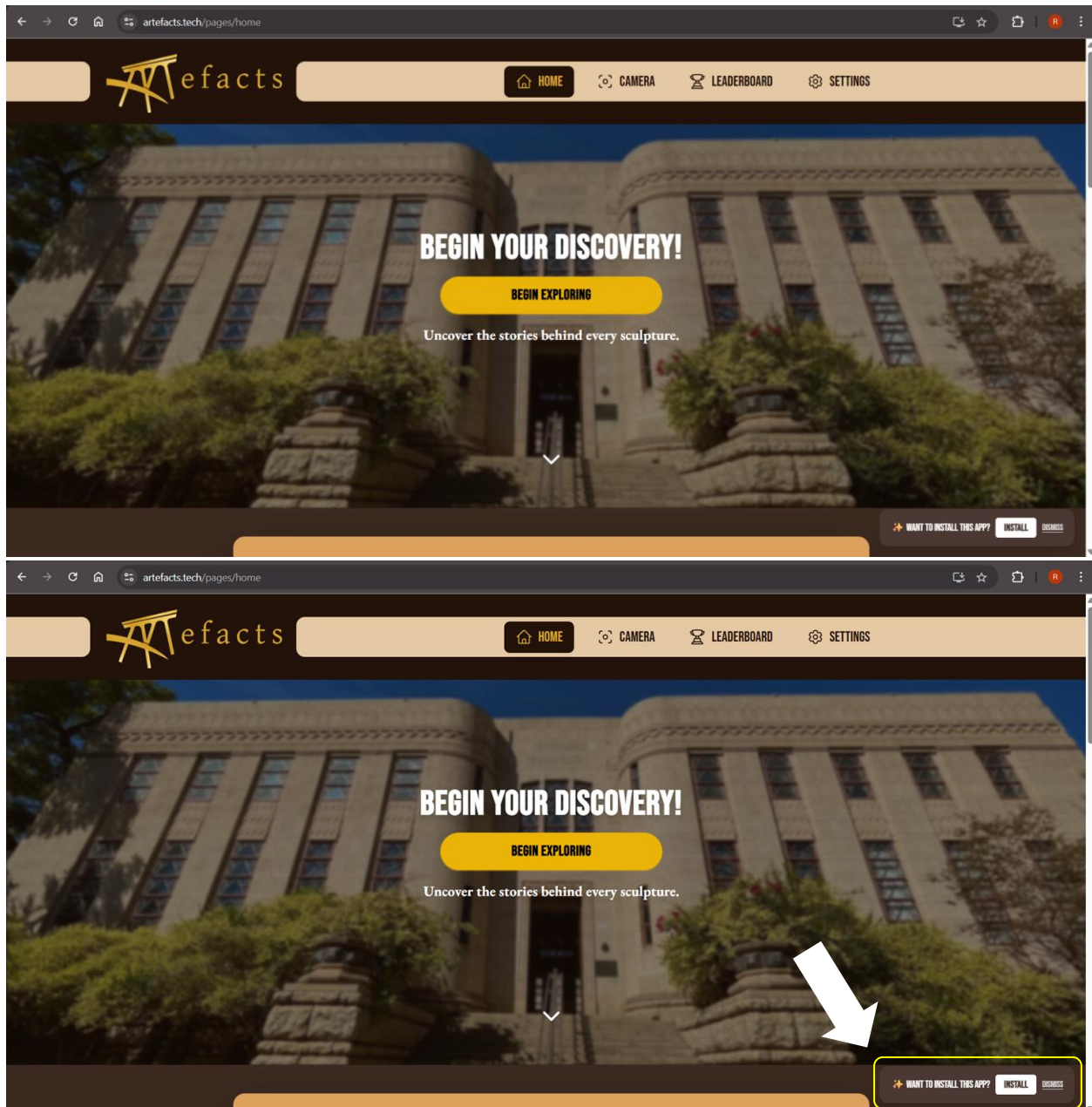
2. Getting Started

2.1 Installation & Access

You can access ARTefacts by visiting the web link or installing the PWA on your device:

Mobile Installation:

BEGIN YOUR DISCOVERY!

BEGIN EXPLORING

Uncover the stories behind every sculpture.

ARE YOU ENJOYING ARTEFACTS?

Download the app and play daily, right from your home screen.

INSTALL

DISMISS

BEGIN YOUR DISCOVERY!

BEGIN EXPLORING

Uncover the stories behind every sculpture.

ARE YOU ENJOYING ARTEFACTS?

Download the app and play daily, right from your home screen.

To install:
- Tap the **Share** icon at the bottom of your screen
- Select **Add to Home Screen** from the menu

DISMISS

- On your browser go to https://artefacts.tech using Safari or Chrome.
- Upon arriving at the home screen on the bottom left section of the screen there should be a brown button with a download icon. Click on that icon.
- A window appears asking you if you want to install the app. Click on install to install the app or on dismiss to remove the message.
- If you're using an iPhone or iOS based system the instructions to install will be shown to you.
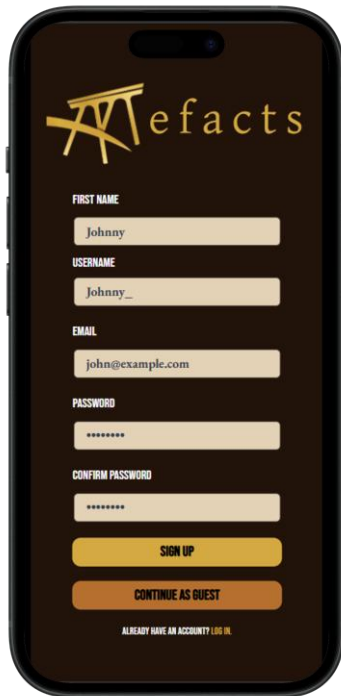
Web Installation:

- On your browser go to https://artefacts.tech using Safari or Chrome.
- Upon arriving at the home screen on the bottom right section of the screen there should be a small menu with install or dismiss. Click on install and you'll be prompted to install or dismiss and the menu will be removed.

2.2 Account Registration

To access the full range of features on ARTefacts including saving your game score, appearing on the leaderboard, and profile customization you'll need to create an account. Registration is quick and secure, handled through AWS Cognito to protect your data.

How to register:

1. Navigate to the Settings tab and select **"Sign Up"**.
   This will redirect you to the sign up page
2. Enter your **first name, username, email address**, and create a secure password that meets strength requirements.
   Email Address – This will be used as your login ID and for account verification.
   Password – Choose a secure password that meets the strength requirements.
   Username – This is the name that will appear on your profile and the leaderboard.
3. Select the **"Sign Up"** to proceed.
4. A verification code will be sent to your email address. Check your inbox.
5. Enter the verification code in the app to complete your registration.
6. Once verified, your account will be created and you'll be automatically logged in.

Once registered, you can access the full range of features on ARTefacts. Make sure to use a valid email address that will be used for account verification, recovery, and security alerts.If you experience any issues during registration, please refer to the Support section at the end of this manual.

2.3 Logging In

If you already have an ARTefacts account, logging in is simple and secure. Logging in grants you access to your profile, the treasure hunt challenge, and the ability to track your progress on the leaderboard.
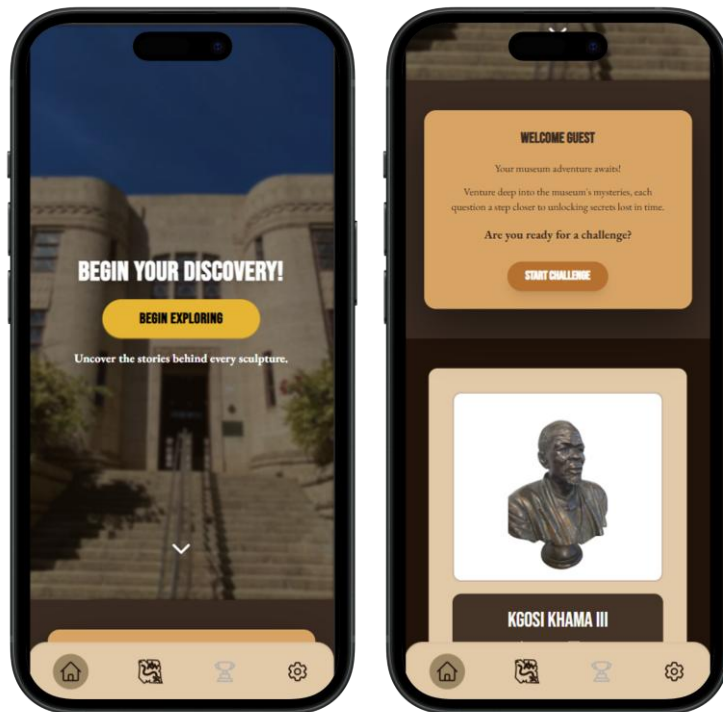

How to Log In:

1. Navigate to the Settings tab and select the **"Login"**.
   This will redirect you to the Login page
2. Enter Your Credentials
   - **Email Address** – Use the email you registered with.
   - **Password** – Enter your account password.
3. Click **"Login"**
   After entering your credentials, click the Login button to access your account.

3. Application Pages

3.1 Home Page

The **Home Page** is the central hub of the ARTefacts experience. It welcomes users and provides intuitive navigation to the app's main features. The design emphasises exploration, engagement, and ease of use, whether you're here for the treasure hunt or to learn more about museum artefacts.
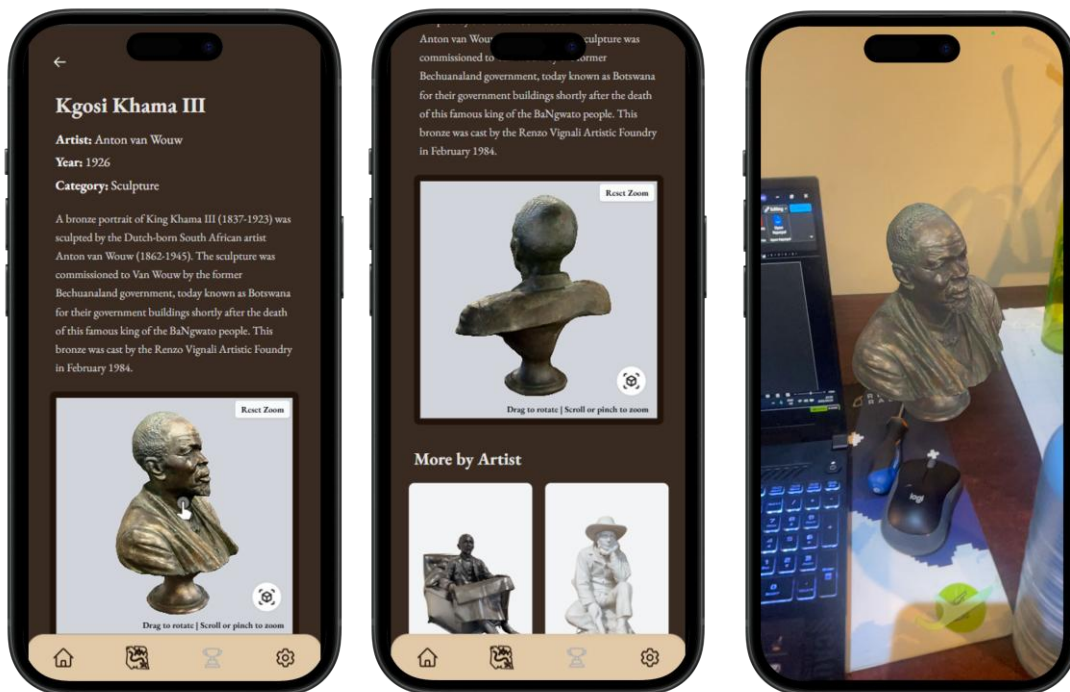

Key Features:

- **Welcome Card**
  The Welcome card invites you to the app explaining what ARTefacts is about and prompts the user to begin the AR Game Challenge. The call to action button **"Start Challenge"** directs the user to the Game as it is the main attraction of our app.

- **Artefact Cards Gallery**
  Below the Welcome card, you'll see a scrollable grid of **artefact cards**. Each card features a preview image, artifact name, and the artist's name.
    - Tapping on any artefact card takes you to the **Artefact Information Page**, where you can explore the item in more depth, view a **3D model**, learn about the **sculpture**, and discover related works by the artist.

This page acts as your starting point for both casual browsing and immersive interaction with the artefacts through ARTefacts.

3.2 Artefact Information Page

The **Artefact Information Page** offers an immersive view into a selected artefact, presenting both informative content and interactive features. It is designed to give users a deeper understanding of the artefact's background, context, and significance, whether viewed on-site or remotely.

How to access page:
● On the home page scroll to the section with the artefacts.
● Click on an Artefact.
● A page with the artefact should appear. To access the 3D model of the artefact click on this button.

Key Features:

● **Artefact Information**
  At the top of the page, detailed metadata about the artefact is displayed in a structured format:
  ○ **Title** – The official name of the artefact.
  ○ **Artist** – The name of the individual or group that created the artefact.
  ○ **Year** – The year the artefact was created or discovered.
  ○ **Category** – The type or classification of the artefact (e.g., Sculpture, Painting, Historical Object).
  ○ **Description** – A detailed narrative providing historical context, artistic background, and any notable facts or stories associated with the artefact.

- **Interactive 3D Model**
  A high-quality **3D model viewer** allows users to:
    - Rotate, zoom, and explore the artefact from multiple angles.

Tip: Use a well-lit, flat surface when previewing in AR for the most accurate placement
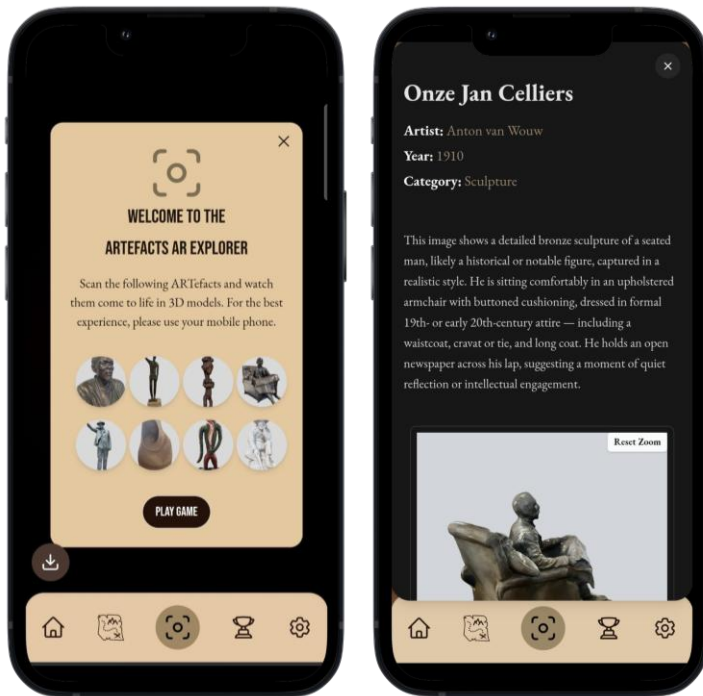
- **More by the Artist**
  If the artist has additional ARTefacts currently featured in the museum, these are shown in a **More by Artist** section. Each related artefact is presented as a card, which can be clicked to navigate directly to its details page. This encourages continued exploration and learning.

The Artefact Details Page brings each item to life by combining factual information with interactive technology, offering a compelling digital extension of the physical museum experience.

3.3 Camera (Scan) Page

The **Camera Page** enables a unique and interactive way to explore ARTefacts by using your device's camera. This feature is designed to bridge the gap between the physical and digital museum experience, allowing users to quickly access rich content by simply scanning an artefact on display.

How it Works:

1. **Launch the Camera Page**
   Tap the camera icon or navigate to the **Scan** page from the main navigation bar or treasure hunt interface.
2. **Point Your Camera at an Artefact**
   Align your camera with an artefact that is part of the museum's collection and registered in the ARTefacts database.
3. **Automatic Recognition**
   If the artefact is recognised:
   ○ The app will instantly display its **Artefact Details Page**, including title, artist, year, category, description, and a 3D model (if available).
4. **Treasure Hunt Integration**
   Scanning is not just a convenience, it's part of the **Treasure Hunt Challenge**. Some riddles require users to:

   ○ Identify an artefact based on a clue,
   ○ Locate it in the museum,
   ○ And scan it to progress to the next stage of the hunt.

Tip: Be sure to **allow camera permissions** when prompted to use this feature.

3.4 Treasure Hunt Challenge

The **Treasure Hunt Challenge** is the heart of ARTeFacts' interactive experience. It transforms your museum visit into an engaging AR sculpture game that blends curiosity, critical thinking, and quick decision-making. While guest users can browse the app and try out the game, only signed-in users can save their scores and appear on the leaderboard.

How to Access Page:

- You can access the game page in two ways:
  - From the **navigation bar** by selecting the **treasure map icon**.
  - From the **Home Page**, by selecting the button **"Start Game"** located beneath the Welcome Guest card.
- The game is only available on **mobile devices**. Due to camera and AR functionality, it cannot be accessed on desktop or PC browsers.

How to start the Game:

- Once you enter the Game Page, the challenge loads with a friendly welcome screen.
- You can choose to start the game immediately by selecting the **"Start"** or tap **"How to Play"** for a step-by-step guide explaining the rules and gameplay mechanics.
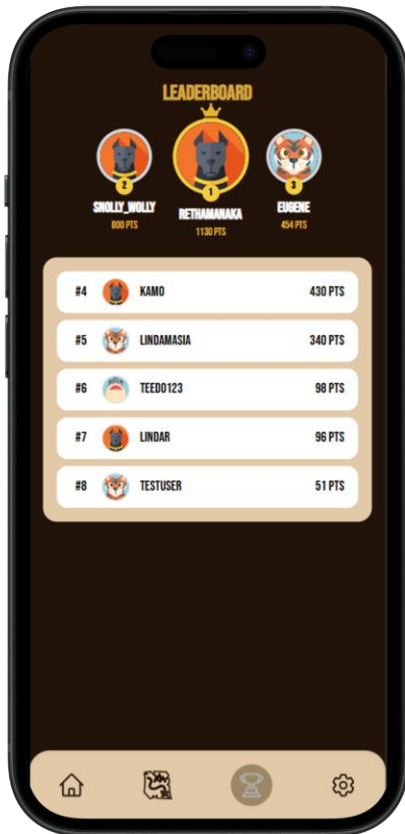
Gameplay Overview:

- The game presents one question at a time
- Question types include
    - **Multiple choice questions**, where users must examine artefact descriptions to answers and riddles or complete missing words or phrases by selecting the correct answer .
    - **Scan-based tasks**, Read the clue provided. Tap "Identify Artefact" to activate your device's camera.Point the camera at the artefact you believe matches the clue.The app uses image recognition to confirm your selection.
- After tapping Start, a 3-minute countdown timer begins.
- Answer or scan the correct artefact before time runs out to move on.
- Solving each riddle unlocks the next question of the challenge.
- After completing all the questions you final score is based on:
    - The number of correct questions solved
    - How quickly you solve them
    - This final score will be automatically added to the leaderboard and contribute to your position on the leaderboard (if the user is signed in) .
- Sign-In Required
  You must be signed in to capture the Treasure Hunt Challenge score and display on the leaderboard.
  This ensures your progress and leaderboard position are saved securely.

This fast-paced and rewarding feature transforms traditional museum visits into memorable learning journeys, perfect for both solo adventurers and groups.

3.5 Leaderboard Page

The **Leaderboard Page** showcases the top performers participating in the ARTefacts Treasure Hunt Challenge. It is designed to motivate users by fostering a sense of friendly competition and recognising those who excel in solving riddles and navigating the museum experience.

How to Access Page:

- Open the app. On the Navbar you should see a trophy icon
- Click on the trophy icon.
  This will navigate you to the leaderboard page.
- On this page you will see the current scores of players
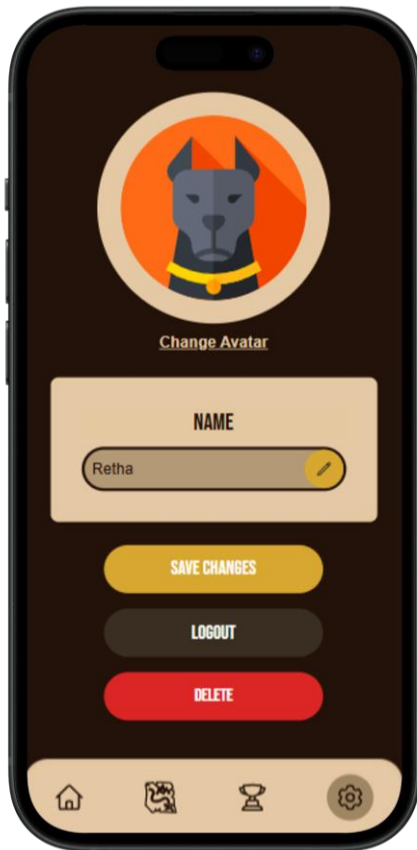
What You'll See:

- A display of player rankings based on their **final scores** from the AR Sculpture Game.
- The top 10 users are shown along with their **username, avatar and final score**

The leaderboard updates dynamically as users progress through the treasure hunt, encouraging continuous participation and revisits to improve rankings.

This page plays a critical role in making ARTefacts not just an educational tool but also a rewarding and competitive experience for individuals and groups.

3.6 Profile Page

The **Profile Page** in ARTefacts gives you a personalised space to manage your account details and customise how you appear within the app, especially on the **leaderboard** and during interactive challenges.

How to Access Page:

- Open the app.
- On the navigation bar (the navbar should be at the bottom of your screen or at the top) you should see a gear icon
- Click on the gear icon.
  This will navigate you to the profile page.
- On this page you will see features such as editing your name, logging out and changing your avatar.

Key Features:

- **Change Your Avatar**
  Tap "Change Avatar" to select from a list of available avatars.
  Your chosen avatar will appear on your profile and leaderboard, making it easier for others to recognise you during challenges or group activities**.**

- **Edit username Name**
  Tap the pen icon next to your username to update your username name. This is the name shown publicly in the app.

- **Log Out of Your Account**
  Use the "**Log Out**" button to safely end your session on the device. This is recommended when using a shared or public device to ensure your data stays secure.

  All profile updates are secured through **AWS Cognito**, ensuring your account details are protected.

The Profile Page provides quick access to account customisation, helping users feel connected and represented in the app's social and competitive features.

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4. Tips & Troubleshooting

If you run into issues or want to get the best experience from ARTefacts, keep these tips in mind:

Camera & Scanning

- Make sure your device **grants camera permissions** to the app. Without this, scanning ARTefacts won't work.
- If a scanned artefact isn't recognised, verify that it's included in the current museum database. ARTefacts outside the database won't return results.

Authentication & Access

- Some features, especially the Treasure Hunt,require you to be **logged in**. Check that you are signed in if you can't access certain pages.
- If you forget your password, use the **Forgot Password** feature to reset it via email.

Browser Compatibility

- For the smoothest experience, use the latest versions of **Google Chrome** or **Safari**. Older browsers or unsupported ones may cause display or functionality issues.

Performance

- Ensure a stable internet connection for loading 3D models and fetching updated content.
- Refresh the app if you notice stale or missing data.

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5. Support

If you encounter any issues, have questions, or want to provide feedback:

- **Submit issues or feature requests** on the GitHub Repository.

We value your feedback and are committed to improving your ARTefacts experience!