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USER MANUAL

SEED VAULT

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USER INSTRUCTIONS

THIS SECTION PROVIDES STEP-BY-STEP GUIDANCE ON HOW TO ACCESS, NAVIGATE, AND USE SEED VAULT. INSTRUCTIONS ARE DIVIDED BY USER ROLE TO ENSURE THAT COMMUNITY MEMBERS, RESEARCHERS, AND ADMINISTRATORS UNDERSTAND HOW TO INTERACT WITH THE PLATFORM SAFELY AND RESPECTFULLY.

Using the Platform as a Guest

Guests have view-only permissions.
Browsing Materials
1. Select "Seed" from the menu or use the search bar.
2. Browse the available cultural and language materials.
Viewing an Item
1. Click any available artifact to open its details.
2. Guests may view descriptions and access content that has been approved for public viewing.
Guests cannot upload, edit, or delete any content.

Logging In as an Administrator

Administrative users have extended privileges to manage cultural data.
Logging In
1. Click the "Login" button at the top of the homepage.
2. Enter your assigned username and password.
If authentication is successful, you will be redirected to the Admin Dashboard.
If authentication fails, the system will display an error message

Using the Admin Dashboard (Admin LoadDirect)

Administrators can upload new materials, manage existing artifacts, and maintain cultural protocols.
Administrative Tools Include:
- Uploading new cultural artifacts
- Adding metadata such as title, tribe, description, and contributor
- Managing existing entries
- Deleting outdated or restricted items
- Reviewing access logs (if enabled)

Managing Existing Artifacts (Admin)

Administrators may view, edit, or delete existing content.
To delete an artifact:

1. Locate the artifact in the Admin Dashboard.
2. Select "Delete."
3. Confirm the deletion when prompted.

All deletions are recorded in the audit log.

Logging Out

1. Click the "Logout" button located at the top-right corner of the screen.
2. After logging out, you will be returned to the guest homepage and administrative features will no longer be accessible.

Your General Usage Considerations

- Access is determined by role assignments and cultural protocols.
- Administrators should upload only materials that have proper community authorization.
- Guests should follow all cultural use guidelines when viewing materials.
- The system automatically enforces role-based permissions to protect sensitive content.

TROUBLESHOOTING AND FAQ

Troubleshooting Guide

1. **I searched for a word, and nothing came up.**

Try this:
- Make sure the word is spelled correctly.
- Try searching with lowercase only.
- Remove any extra spaces before or after the word.
- If you used accents or special characters, try without them.
- Refresh the page and search again.

2. **My entry won't save.**

Try:
- Make sure every required field is filled out.
- Remove special symbols like <, >, or scripts (if the app blocks them).
- Refresh the page and try again.
- If you're uploading a file, make sure it's the right format and size.

3. **I accidentally added the same word twice.**

Good news: Seed Vault allows duplicates.
If you want to clean up your list:
- Use search to find all versions of the word
- Delete the extra ones manually
- Or merge them into one entry if needed

4. **The characters in my entry look weird or broken.**

Fix:
- Check that you're using UTF-8 encoding (most browsers do this automatically).
- Re-enter the word without copying/pasting from another app.
- Try typing the characters manually.

5. **The search bar isn't responding.**

Try:
- Refresh the page
- Make sure your browser didn't block scripts
- Try typing slowly (some browsers lag on large datasets)
- Try another device or browser

Frequently Asked Questions

1. **What is Seed Vault?**

Seed Vault is a language archive where users can store, search, and organize words, definitions, and examples. It helps you build a safe and easy-to-use collection of language data.

2. **Can I add the same word more than once?**

Yes. Seed Vault allows duplicates. This can be helpful if the same word has different meanings, pronunciations, or dialect versions.

3. **What can I store in Seed Vault?**

You can store words, definitions, categories, translations, and any extra notes your project needs.

4. **What characters are supported?**

Seed Vault supports UTF-8 characters, which means most languages — including non-Latin scripts and IPA — should work normally.

5. **How do I delete an entry?**

Use the Delete button next to the entry. You will get a confirmation message before it is permanently removed.

6. **Is my data safe?**

Seed Vault blocks dangerous inputs like scripts or malware-like code. Still, avoid pasting code or unknown text into the app.

7. **Why didn't my file upload work?**

Your file may be:
- Too large
- The wrong format
- Missing required data

Check your instructions and try again.

SAFETY PRECAUTIONS

1. DATA SECURITY & ACCESS CONTROL

- Role-Based Access Control (RBAC):
  - Only authorized roles (Archivist, Admin, Linguist, Contributor, Public Viewer) can access certain datasets.
- Least-Privilege Principle:
  - Users receive only the permissions needed for their tasks (e.g., transcribers cannot delete records).
- Multi-Factor Authentication (MFA):
  - Required for all privileged accounts (Archivist, Admin).
- Strong Password Policy:
  - Rotation schedule, minimum length, complexity requirements.
- Session Timeout / Auto-Logout:
  - Prevents hijacking of idle sessions.

2. PRESERVATION & REDUNDANCY SAFEGUARDS

- Regular Backups:
  - Automated nightly database backups are stored in multiple physical locations or cloud regions.
- Immutable Storage for Critical Artifacts:
  - Original audio files, manuscripts, and metadata stored in Write-Once-Read-Many (WORM) storage.
- Checksum Verification:
  - SHA-256 or similar hashing to detect corruption in media files.
- Versioning:
  - Never overwrite original data; maintain full revision histories.

3. DATA INTEGRITY & VALIDATION

- Input Validation:
  - Forms enforce required fields, controlled vocabularies, ISO-639 language codes, and metadata consistency.
- Automated Integrity Scans:
  - Scheduled checks for missing metadata, broken file references, or potential corruption.
- Anti-Tamper Logging:
  - Track all changes with user ID, timestamp, and action type.

4. ETHICAL & CULTURAL SAFEGUARDS

This is crucial for Indigenous language materials.

- Access Protocols Respecting Cultural Sensitivity:
  - Some materials may require community permission, restricted viewing, or embargoed access.
- Consent Tracking:
  - Record consent forms, usage rights, and cultural restrictions for each item.
  - Community Governance:
- Advisory board representing communities whose languages are stored in the Seed Vault.

5. DISASTER RECOVERY & HIGH-AVAILABILITY MEASURES FAILOVER SYSTEMS:

Hot standby database or container-based replicas to minimize downtime.

- Redundant Storage:
  - Copies are stored in at least three geographically distributed locations.
- Disaster Recovery Runbooks:
  - Step-by-step instructions for restoring the Seed Vault during catastrophic failures.

6. MONITORING, DETECTION & ALERTING

- Health Monitoring Tools:
  - Tools such as:
    - Prometheus / Grafana (system health)
    - ELK Stack or Splunk (logs)
    - CloudWatch / Azure Monitor (cloud systems)
- Automated Alerts:
  - Triggered for:
    - Server downtime
    - Database errors
    - Failed backups
    - Unauthorized access attempts
    - Storage nearing capacity
- Audit Dashboard:
  - Centralized view of access patterns, system health, and anomalies.

7. NETWORK & INFRASTRUCTURE SECURITY

- Encrypted Data in Transit & at Rest:
  - TLS/HTTPS for all connections, AES-256 for storage.
- Firewalls & Zero-Trust Network Segmentation:
  - Prevent lateral movement inside the system.
- DDoS Protection:
  - Cloud-based mitigation services.
- Regular Vulnerability Scans & Patch Management:
  - Monthly security patches; critical vulnerabilities patched within 48 hours.

8. OPERATIONAL SAFETY & STAFF PROCEDURES

- Incident Response Training:
  - Archivists and admins know how to:
    - Detect abnormal behavior
    - Escalate issues
    - Trigger incident response protocols
- Secure Workstations:
  - Enforced updates, screen locks, and encrypted local disks.
- Data Handling Guidelines:
  - Approved methods for uploading, transferring, and sharing data.

9. LEGAL & COMPLIANCE SAFEGUARDS

- Compliance with Privacy Laws:
  - GDPR, FERPA, or local equivalents, depending on jurisdiction.
- Copyright & Licensing Management:
  - Store rights metadata and enforce allowed uses.
- Retention Policies:
  - Clear schedules for what must be preserved permanently vs. what can be deleted.

10. CONTINUOUS REVIEW & TESTING

- Annual Penetration Testing:
  - Third-party audits identify weaknesses.
- Backup Restorations Drills:
  - Quarterly tests to ensure that restore processes actually work.
- Policy Review:
  - Review safety procedures yearly or after major incidents.

POLICIES & TERMS OF USE

Seed Vault is a cultural preservation platform.
By accessing or uploading to Seed Vault, users agree to follow these requirements to ensure ethical and respectful use of cultural materials.

1. Ownership & Rights:
- Materials remain owned by the contributor or originating community.
- Permission must be obtained before uploading.
- Cultural protocols and restrictions must be respected.

2. Usage Permissions:
- Materials may not be redistributed outside Seed Vault without approval.
- Users may only view and upload within their assigned access level.
- Metadata may not be changed without authority.

3. Access Control:
- Guests may view open-access materials only.
- Contributors can upload and annotate their own entries.
- Admins may edit, reorganize, or remove entries to protect cultural standards.

4. Account & Security Responsibilities:
- Users must safeguard login credentials.
- Attempting to bypass system protections is prohibited.
- Suspicious accounts may be restricted.

5. Privacy & Confidentiality:
- Restricted materials may not be screenshotted, published, or shared.
- Cultural privacy guidelines must be followed at all times.
- Sensitive data may only be viewed by users with permission.

6. Ethical Expectations:
- Materials may not be misused, exploited, or misrepresented.
- Cultural meaning and context must remain intact.

7. Prohibited Actions:
- Uploading unauthorized or harmful content.
- Editing or removing others' uploads without approval.
- Uploading malware, scripts, or harmful programs.

8. Removal of Materials:
- Contributors may request the removal of their uploads.
- Admins may remove items violating policy.
- Removed materials are not restored unless needed for review.

9. Liability:
- Users are responsible for the materials they upload.
- Seed Vault is not liable for misuse of cultural data.

10. Agreement:
- By using Seed Vault, users confirm they understand these terms and agree to follow them responsibly and respectfully.

OPTIMAL SEED VAULT USE

Following Tiered Access Protocols:

- Always log in with your *assigned access level* and *avoid sharing credentials*.
- If you believe you need elevated permissions, *submit a request* rather than attempting to bypass restrictions.
- When sharing content with others, ensure they have the correct access tier to view it.

Uploading Materials Correctly:

- Use clear, *standardized file naming* conventions (e.g., "Region_ObjectName_Year").
- Include *complete metadata*: cultural background, community of origin, date, creator (if known), usage rights, and sensitivity classification.
- Verify that all permissions for storing the material have been obtained and documented.
- Avoid duplicates by performing a quick search before uploading new material.

Engaging Thoughtfully with Stored Materials:

- *Respect the cultural protocols* and instructions attached to each item.
- *Refrain from downloading or reproducing sensitive items* without authorization.
- Use annotations and comments to contribute additional knowledge respectfully.
- Report any misclassification, missing metadata, or potential security issues

Maintaining Ethical Use and Cultural Sensitivity:

- Treat all materials as culturally significant, even if their personal background differs.
- *Adhere to all stated restrictions* regarding access, sharing, or reproduction.
- Avoid using materials in commercial or public settings without explicit permission.
- Prioritize community-approved interpretations and avoid speculative or misleading descriptions.
- Proper ethical use protects both the materials and the communities that trust Seed Vault.

Using the Platform Efficiently:

- Familiarize yourself with the dashboard and navigation menus.
- Use search filters effectively; by culture, date, artifact type, access level, or keyword.
- Follow recommended workflows for uploading, reviewing, and retrieving materials.
- *Knowing the system's tools* helps users work faster and with greater confidence.

When in Doubt, Ask:

If anything is unclear, whether it involves cultural permissions, access rights, or platform functionality, users should *reach out to the team or cultural liaisons*. Seed Vault values accuracy, respect, and collaboration, and clarity is better than assumption.

INCORRECT SEED VAULT USE

Uploading Content:

- Missing or unclear details
  - Make sure to fill in all required information (language, region, date, etc). If information is missing, the upload may be denied.
- Selecting the wrong language or dialect
  - Use the examples and descriptions provided when choosing the language. If your choice is incorrect, the upload may be denied.
- Uploading material you don't have permission to share
  - Only upload recordings or documents you own or have explicit permission to archive. Failure to follow this may result in the upload being denied.

Understanding Content:

- Mistaking dialects, variants, or spellings
  - Some languages include multiple forms. Read the notes attached to the entry.
- Assuming translations or AI-generated transcripts are perfect
  - Automated tools are helpful but not always right. Verified translations will be marked accordingly.

Security and Account Use:

- Sharing your login with others
  - Each user must have their own account for security and tracking.
- Trying to edit materials
  - All items require permission to edit. Request access if you believe you need to edit an item.

Sharing and Publishing:

- Posting archive material without a correct citation
  - Include the provided citation when sharing or publishing.

PRODUCT SPECIFICATIONS AND DESCRIPTION

Product Description:

Seed Vault is a secure, cloud-enabled software application designed to archive, store, and manage cultural, community, or organizational digital assets. It helps users safely preserve documents, images, media files, and metadata while giving admins full control over data privacy, access permissions, and backup integrity.

Product Purpose:

This software is designed to provide a centralized, secure platform for uploading, organizing, and retrieving digital files. It ensures long-term data preservation through encrypted storage, role-based access control, and structured metadata management. The system can be used by institutional archivists, project teams, or community groups who need a reliable digital vault.

Software Requirements:

- Supported Operating Systems:
  - Windows, macOS, Linux
- Development Languages:
  - Python and SQL
- Required Frameworks:
  - Python environment
  - MySQL / SQL database
- Browser Requirements:
  - Chrome, Firefox, Safari, Edge (latest versions)

System Features:

- Role-Based Access Control (RBAC):
  - Different permissions for admins, editors, contributors, and viewers.
- Secure Upload & Storage:
  - Encrypted files with automatic cloud backups.
- Metadata Management:
  - Add titles, dates, descriptions, and tags (supports multiple languages).
- Search & Filter Tools:
  - Find files by keyword, type, contributor, date, or tags.
- Version History (Optional):
  - Keeps older versions of files.
- Activity Logs:
  - Tracks uploads, edits, and deletions.
- Responsive Web Interface:
  - Works on desktop, tablet, and mobile browsers.
- Future Mobile App Support:
  - Planned Android/iOS compatibility.

Supported File Types:

- Images
  - JPG
  - PNG
  - TIFF
- Documents
  - PDF
  - DOCX
  - TXT
- Audio
  - MP3
  - WAV
- Export Options
  - ZIP archive bundles
  - JSON metadata export

System Architecture:

- Back-End:
  - Python server application
- Database:
  - SQL (MySQL or PostgreSQL)
- Front-End:
  - Currently HTML
  - Figma/Adobe XD used for design
- Cloud Services:
  - Google Cloud or AWS
- Storage:
  - Encrypted cloud buckets with automatic backup
- APIs:
  - REST-based API endpoints for upload, retrieval, and metadata operations

Licensing & Ownership:

- Software Ownership:
  - Owned by the Seed Vault project team
- Data Ownership:
  - Users retain full ownership of the files they upload
- Usage Permissions:
  - Admins control access
  - Users can upload/manage their own content
- Licensing Model:
  - Educational / research purpose license
  - No user content is mined or resold
- Data Protection:
  - Stored under cloud provider compliance (AWS/GCP)
  - Follows digital archive ethical guidelines

GLOSSARY OF TERMS

- **Access Level**
  - A permission tier assigned to each user that determines which materials they may view, upload, edit, or manage.
- **Admin (Administrator)**
  - A user with full platform privileges, responsible for approving content, managing users, maintaining cultural protocols, and overseeing security and data integrity.
- **Archivist**
  - A designated cultural or organizational representative responsible for reviewing metadata, verifying authenticity, and ensuring items respect cultural practices and preservation standards.
- **Artifact**
  - Any uploaded digital item, including text, audio, images, documents, or metadata related to cultural, linguistic, or historical materials.
- **Backup**
  - A securely stored duplicate of the archive used to prevent data loss in the event of a system failure or emergency.
- **Checksum**
  - A cryptographic value used to verify that files have not been altered, corrupted, or damaged.
- **Contributor**
  - A registered user authorized to upload materials and provide metadata, notes, or context about an artifact.
- **Cultural Protocols**
  - Rules and traditions set by the originating community that govern access, use, preservation, and sharing of cultural items.
- **Metadata**
  - Descriptive information (title, language, date, contributor, rights, community of origin, etc.) that accompanies an artifact to ensure proper organization and retrieval.
- **Multi-Factor Authentication (MFA)**
  - A security requirement that uses more than one method of identity verification before granting access to privileged user roles.
- **Public Viewer / Guest**
  - A user who may view approved public materials but cannot upload, edit, or delete content.
- **Restricted Material**
  - Content identified by a community or contributor as sensitive, requiring special authorization before viewing or use.
- **Role-Based Access Control (RBAC)**
  - A system of assigning permissions to users based on their role to ensure security, privacy, and cultural respect.
- **Seed Vault**
  - The preservation platform used to store, catalog, protect, and ethically manage cultural and language-related digital materials.
- **Versioning**
  - The practice of maintaining previous versions of content to preserve revision history and protect original artifacts.

SEED VAULT

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