



# User Stories Report

Project: CSIMS

Total Stories: 37

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## Story 1:

High Priority

US-001

As a Student, I want to register using my matriculation number and email, so that I can securely access the University Registry and Records System.

### Acceptance Criteria:

- User can register only with a valid matriculation number and email.
- Validation checks confirm matriculation number format and email correctness.
- Registration fails with appropriate error message if inputs are invalid.
- User is required to complete two-factor authentication during registration.

## Story 2:

High Priority

US-002

As an Alumni or External User, I want to register using my email or phone, so that I can securely submit document requests or verifications.

### Acceptance Criteria:

- User can register with a valid email or phone number.
- Registration form enforces validation on email and phone formats.
- Two-factor authentication (2FA) is enforced after registration.
- System prevents duplicate registrations using same email or phone.

## **Story 3:**

High Priority

US-003

As any User, I want two-factor authentication (2FA) enforced on login, so that my account security is increased.

### **Acceptance Criteria:**

- 2FA prompt is triggered immediately after username/password authentication.
- 2FA supports standard methods (e.g. SMS, authenticator apps).
- Users cannot access the system without successful 2FA verification.
- Failed 2FA attempts limit account access as per security policy.

## **Story 4:**

High Priority

US-004

As a User, I want to submit requests for academic transcripts, certificates, admission letters, statement of results, certificate verification, or financial documents, so that I can obtain required official documents.

### **Acceptance Criteria:**

- Users can select document type from a predefined list before submission.
- System collects all required fields depending on document type.
- Requests are stored in the database with all details intact.
- User receives confirmation of successful request submission.

## **Story 5:**

High Priority

US-005

As a User, I want automatic validation of my request details against the Student Information System (SIS), so that errors in my application can be minimized.

### **Acceptance Criteria:**

- System validates matriculation number, name, and other key details against SIS data.
- Validation errors are clearly communicated to the user with corrective instructions.
- Requests with invalid data are not processed until corrected.
- Validation occurs in real-time or within an acceptable short delay.

## **Story 6:**

High Priority

US-006

As a User, I want to upload supporting documents such as identity proof and payment receipt during application, so that my request is complete and processed without delay.

### **Acceptance Criteria:**

- Upload fields accept specified file types and size limits.
- Users can upload multiple documents per request where applicable.
- Uploaded documents are securely stored and linked to the request.
- System verifies presence of required uploads before allowing submission.

## **Story 7:**

High Priority

US-007

As a User, I want to track the status of my requests in real-time on a dashboard, so that I am aware of progress and estimated delivery.

### **Acceptance Criteria:**

- Dashboard shows current status of all user requests with timestamped updates.
- Status stages include at minimum: In Progress, Approved, Delivered.
- Dashboard data updates automatically or on user refresh with no errors.
- Historical request data and status history are accessible to the user.

## **Story 8:**

High Priority

US-008

As a User, I want to receive automated email and SMS notifications at each stage of my request processing, so that I stay informed without needing to check the dashboard constantly.

### **Acceptance Criteria:**

- Notifications are triggered on key events: submission, payment confirmation, approval, and delivery.
- Notification messages comply with customizable templates defined by registry staff.
- SMS and email deliveries are logged and retried on failure.
- Users can opt out of non-critical notifications as per subscription management.

## **Story 9:**

High Priority

US-009

As Registry Staff, I want to retrieve and validate student records securely, so that I can confirm eligibility before preparing requested documents.

### **Acceptance Criteria:**

- Staff access to student records is role-based and logged.
- Staff can search and view details of student records using identifiers.
- Access is denied when staff permissions are insufficient.
- All actions on student records generate audit log entries.

## **Story 10:**

High Priority

US-010

As Registry Staff, I want to prepare, approve, and digitally sign transcripts, certificates, and letters, so that documents are authenticated before delivery.

### **Acceptance Criteria:**

- Staff can generate document drafts linked to a request.
- Digital signature functionality is integrated and complies with institutional standards.
- Only authorized staff can approve and sign documents.
- Document version history is maintained and auditable.

## **Story 11:**

High Priority

US-011

As Registry Staff, I want to track and manage request queues with SLA compliance monitoring, so that requests are processed efficiently and transparently.

### **Acceptance Criteria:**

- Queue displays current requests sorted by priority and aging.
- SLA targets are defined and SLA breaches are highlighted and reported.
- Staff can update request statuses that reflect immediately to users.
- System generates alerts for overdue requests.

## **Story 12:**

High Priority

US-012

As a User, I want to receive documents electronically via secure, expiring download links or email attachments after approval, so that I can retrieve them conveniently and securely.

### **Acceptance Criteria:**

- Download links expire after configured durations to prevent unauthorized access.
- Email attachments are delivered over encrypted channels.
- Delivery events including user download acknowledgments are logged.
- Files are encrypted at rest and in transit per compliance standards.

## **Story 13:**

High Priority

US-013

As a User, I want to receive physical documents via courier where applicable, with courier tracking information, so that I have confirmation of delivery status.

### **Acceptance Criteria:**

- Courier option is available and selectable for eligible document types.
- Tracking numbers and courier details are linked to the delivery record.
- Users can view courier progress on their dashboard or via notifications.
- Delivery acknowledgments by users are logged.

## **Story 14:**

High Priority

US-014

As an Administrator, I want role-based access control (RBAC) implemented with configurable permissions, so that system access is secured and compliance requirements met.

### **Acceptance Criteria:**

- User roles include Student, Alumni, External Verifier, Registry Staff, and Administrator.
- Permissions are configurable at role and user level.
- Unauthorized access attempts are blocked and logged.
- RBAC implementation is tested with unit and security testing tools.

## **Story 15:**

High Priority

US-015

As an Administrator, I want detailed audit trails and change logs maintained for all system actions, so that compliance and dispute resolution are supported.

### **Acceptance Criteria:**

- Audit logs capture user identity, action type, timestamp, and affected data.
- Logs are tamper-evident and securely stored with restricted access.
- Audit logs can be queried and exported by authorized staff.
- Logging complies with ISO/IEC 27001 standards and NDPR requirements.

## **Story 16:**

Medium Priority

US-016

As a User, I want to subscribe to updates on transcript processing, verification status, and alumni newsletters, so that I receive timely information relevant to me.

### **Acceptance Criteria:**

- Subscription options are presented clearly during registration and in the user dashboard.
- Users can modify or cancel subscriptions at any time.
- Notification delivery follows user subscription preferences.
- Subscription changes are reflected immediately in notification workflows.

## **Story 17:**

High Priority

US-017

As a Payment Processor, I want the system integrated with Paystack, Flutterwave, and Remita to support local payment methods, so that users have flexible and secure options to pay for services.

### **Acceptance Criteria:**

- System accepts card payments, bank transfers, and USSD options through configured gateways.
- Payments are processed securely following PCI DSS standards.
- Payment status updates are automatically reconciled and linked to requests.
- Digital receipts are automatically generated and stored for users.

## **Story 18:**

High Priority

US-018

As Registry Staff, I want an intuitive, secure administrative dashboard to manage daily operations, including request intake, approvals, and communication, so that operational efficiency is improved.

### **Acceptance Criteria:**

- Dashboard presents workload, requests queue, and status visibility.
- Staff can approve, reject, or escalate requests within the dashboard.
- Staff can send automated or manual email/SMS communications from the dashboard.
- Access to the dashboard is controlled by RBAC and secure authentication.

## **Story 19:**

Medium Priority

US-019

As an Administrator, I want to customize email and SMS notification templates used throughout the system, so that messages reflect institutional branding and tone.

### **Acceptance Criteria:**

- The system provides an interface to edit notification subject, body, and variables.
- Changes to templates are version controlled and audit logged.
- Notification system uses the latest approved template per communication event.
- Unauthorized users cannot access or modify templates.

## **Story 20:**

High Priority

US-020

As a Third-Party Verifier, I want a web-based portal to securely verify credentials of students and alumni, so that I can confirm authenticity efficiently.

### **Acceptance Criteria:**

- Portal requires secure login and RBAC for authorized verifiers.
- Verifier can search credentials by various identifiers (e.g., name, matric number).
- Verification results include tamperproof elements such as QR code validation.
- All verification requests and results are logged in audit logs.

## **Story 21:**

Medium Priority

US-021

As a Third-Party Verifier, I want to scan QR codes on transcripts and certificates via mobile app or web interface, so that I can instantly validate documents' authenticity.

### **Acceptance Criteria:**

- QR codes encode encrypted verification data compliant with security policies.
- Mobile or web scanning verifies document validity in real-time.
- Invalid or tampered QR codes are rejected with appropriate warnings.
- All scan events are recorded with verifier identity and timestamps.

## **Story 22:**

High Priority

US-022

As an Administrator, I want the system to support multi-tenant architecture with isolated data stores and branding for each institution, so that multiple universities operate independently on shared infrastructure.

### **Acceptance Criteria:**

- Each tenant's data is logically and/or physically separated with access restrictions.
- Tenant-specific workflows and configurations are supported.
- Tenant branding (logos, colors) is applied consistently across interfaces.
- Scalability tests confirm segregation does not impact performance across tenants.

## **Story 23:**

High Priority

US-023

As an Administrator, I want role-based administration configured for each participating university, so that university-specific user and permission management is possible.

### **Acceptance Criteria:**

- Administrators can create and manage tenant roles and assign permissions.
- Users are assigned to tenants and roles correctly, enforcing access scope.
- Changes to user roles and permissions are logged in audit trails.
- Cross-tenant access is blocked unless explicitly authorized.

## **Story 24:**

High Priority

US-024

As a User, I want proof of payment to be managed and tracked within requests, via upload or automated confirmation, so that processing is not delayed due to missing payment evidence.

### **Acceptance Criteria:**

- System accepts uploaded payment proof files with validation for format and size.
- Automated payment confirmations update request status without manual review when possible.
- Requests without payment confirmation are flagged and not progressed.
- Users are notified of missing or invalid payment proofs.

## **Story 25:**

Medium Priority

US-025

As a Registry Staff, I want automated reminders generated for pending requests and subscription renewals, so that no requests or subscriptions are forgotten.

### **Acceptance Criteria:**

- Reminder rules (timing and frequency) are configurable by administrators.
- System generates and sends email/SMS reminders according to rules.
- Users receive reminders when requests approach SLA breach or subscriptions near expiry.
- Reminder sending failures are retried and logged.

## **Story 26:**

High Priority

US-026

As an Administrator, I want the system to generate reports on requests, subscriptions, revenue, and SLA compliance, so that operational and financial performance can be monitored and optimized.

### **Acceptance Criteria:**

- Reports are exportable to common formats (PDF, CSV).
- Reports include aggregated data filtered by date range, institution, and user classes.
- Report generation is available on-demand and scheduled.
- Access to reports is restricted by RBAC.

## **Story 27:**

High Priority

US-027

As a Developer, I want the system to provide RESTful APIs for integration with SIS, DMS, payment gateways, and notification services, so that interoperability with other institutional systems is enabled.

### **Acceptance Criteria:**

- APIs support authentication and role-based access control.
- APIs conform to REST standards and expose documented endpoints.
- APIs have rate limits and error handling per best practices.
- API integrations handle data consistency and failure gracefully.

## **Story 28:**

High Priority

US-028

As a System Operator, I want the system to support daily backups and automated disaster recovery procedures, so that data loss is minimized and service continuity is ensured.

### **Acceptance Criteria:**

- Backups include all critical databases and document archives.
- Backups are encrypted and stored on compliant servers.
- Disaster recovery drills confirm restoration within SLA window.
- Backup logs and alerts are monitored for failures.

## **Story 29:**

High Priority

US-029

As a Developer, I want CI/CD pipelines in GitHub Actions with automated testing and deployment, so that updates are delivered reliably with minimal manual intervention.

### **Acceptance Criteria:**

- Pipelines include unit, integration, and end-to-end tests.
- Failed tests block deployment.
- Docker container images are built, tested, and deployed automatically.
- Rollbacks can be triggered from pipeline on failures.

## **Story 30:**

High Priority

US-030

As a System Architect, I want to implement messaging queues using Kafka or RabbitMQ for notifications and workflow events, so that processing is asynchronous and reliable.

### **Acceptance Criteria:**

- Messages are delivered without loss or duplication.
- Queue system supports horizontal scaling and failover.
- System retries or dead-letter queues handle failed message delivery.
- Message flow is auditable and monitored.

## **Story 31:**

Medium Priority

US-031

As a Staff User, I want to search digitized records using OCR-extracted text, so that I can find relevant documents quickly and accurately.

### **Acceptance Criteria:**

- OCR process extracts searchable text from back-scanned documents.
- Search supports keyword, metadata filters, and full-text queries.
- Search results are paginated and ranked by relevance.
- Search respects RBAC and tenant data isolation.

## **Story 32:**

Medium Priority

US-032

As a System Administrator, I want configurable retry mechanisms for failed requests or notifications, so that transient errors do not result in permanent data loss or user inconvenience.

### **Acceptance Criteria:**

- Retry intervals and counts are configurable.
- Failures and retries are logged with detailed error messages.
- System alerts administrators if retries repeatedly fail.
- Retries handle common failure modes such as network or service unavailability.

## **Story 33:**

Medium Priority

US-033

As a User, I want to modify or cancel my document request subscriptions at any time, so that I have control over the updates I receive.

### **Acceptance Criteria:**

- Users can view current subscriptions in their dashboard.
- Modification and cancellation actions are confirmed and logged.
- Subscription changes take effect immediately in notification workflows.
- Users cannot cancel subscriptions that are mandatory for service operation.

## **Story 34:**

High Priority

US-034

As a Developer, I want to ensure all web interfaces comply with WCAG 2.1 AA standards, so that accessibility for users with disabilities is maintained.

### **Acceptance Criteria:**

- All UI components pass automated and manual accessibility testing.
- Color contrast, keyboard navigation, labels, and ARIA roles follow standards.
- Accessibility compliance is verified during QA and in UAT.
- Users can access the platform using assistive technologies effectively.

## **Story 35:**

High Priority

US-035

As a System Operator, I want to ensure system uptime of at least 99.5%, with monitoring and alerting, so that the service is reliably available to users.

### **Acceptance Criteria:**

- Monitoring tools track uptime and performance metrics continuously.
- Alerting system notifies relevant personnel immediately upon downtime or SLA breach.
- Scheduled maintenance windows are adhered to and communicated.
- Failover mechanisms activate automatically during system issues.

## **Story 36:**

Medium Priority

US-036

As a Registry Staff, I want workload and queue management features on the dashboard, so that I can manage tasks efficiently and avoid bottlenecks.

### **Acceptance Criteria:**

- Dashboard visualizes workload distribution among staff.
- Queues can be filtered and sorted by age, request type, and priority.
- Staff task assignments can be updated by authorized users.
- Bottleneck indicators highlight overloaded queues or pending SLAs.

## **Story 37:**

High Priority

US-037

As a System Architect, I want the system architecture to support horizontal scalability for backend and database layers, so that performance is maintained with increasing users and records.

### **Acceptance Criteria:**

- System components scale out using load balancing in cloud environments.
- Databases support partitioning or sharding per tenant to optimize performance.
- Performance tests demonstrate response time "d 2 seconds under peak loads."
- Scaling operations do not cause downtime or data inconsistency.