Scholarships Finder and Tracker System (SFTS)

Software Requirements Specification (SRS)

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Introduction

The Scholarships Finder and Tracker System (SFTS) is a web-based platform designed to assist students in discovering available scholarships, applying for them, and tracking their application status. The system supports three user roles: Student, Scholarship Provider, and Admin. It includes modules for scholarship management, application tracking, notifications, user profile management, and password reset via OTP.

Functional Modules Per Role

Student:

- Login and logout from the system.
- View and edit personal profile details.
- Change password.
- Browse scholarships with filtering options (e.g., location, course, eligibility).
- Save scholarships for later.

- Apply for scholarships by submitting required documents and forms.

- Track the status of submitted applications (e.g., Pending, Approved, Rejected).

- Receive notifications about scholarship updates and application status.

Scholarship Provider:

Login and logout.

Access a Provider dashboard after login.

Manage scholarships:

- Add new scholarship entries.

- Edit existing scholarship details.

- Delete scholarships.

Review applications:

- View submitted student applications.

- Approve, reject, or request more documents from applicants.

Reset student passwords via OTP if needed.

Admin:

- Login and logout.

- Access Admin dashboard after login.

- Manage users (Students and Providers):

  - Add, edit, and delete user accounts.

- Manage scholarships:

  - View all scholarships posted.

  - Edit or remove inappropriate or outdated entries.

- View overall application statistics.

- Manage system-wide announcements and notifications.

- Handle password reset processes if Providers need assistance.

Each role, upon logout, returns to the login page to maintain security and allow role-switching.

TEST PLAN

Objective

To validate that all modules and features in the SFTS platform work as intended, securely, and efficiently across all user roles.

Scope of Testing

- Authentication (Login/Logout).

- Profile management and password handling.

- Scholarship search, application, and tracking functionalities.

- Scholarship posting and management.

- OTP-based password reset.

- Notification

Testing Types

- Functional Testing

- Integration Testing

- User Interface (UI) Testing

- Role-Based Access Testing

- Regression Testing

Test Environment

- Web Browsers: Chrome and Edge

- Backend Server: Deployed on localhost or staging web server

- Email Server/Mock SMTP for OTP

- Database: MySQL or any relational database

- Tools Used

- Module-wise testing (Scholarship Search, Application Submission, User Management)

- End-to-end flow validation

- Full regression test cycle before deployment

- Resources

- Dedicated testers assigned per user role (Student, Provider, Admin)

- Developer support for debugging and issue fixing

Pre-conditions and Dependencies

Pre-conditions:

1. The SFTS system must be deployed and accessible via a web browser.

2. Valid login credentials must exist for all user roles.

3. Scholarships and user data must be preloaded for testing.

4. Email server (or a mock service) must be configured for OTP handling.

5. Reliable internet connection must be available.

Dependencies:

1. Active database connection for user, scholarship, and application management.

2. Fully functioning backend to handle submissions and business logic.

3. Correct implementation of Role-Based Access Control (RBAC).

4. Working email gateway or API for OTP emails.

5. Proper linking between scholarships, student applications, and provider reviews.

6. Real-time data syncing between UI and backend server.

Actual Testing

Each module was tested manually in the staging environment. Students, Scholarship Providers, and Admins were logged in separately to verify role-specific functionality. OTP processes, form validations, and notification triggers were fully checked.

Observations

- OTP emails for password resets were received within 3–5 seconds.

- Scholarship filtering and search options worked with minimal load times.

- Application statuses updated in real-time after provider review.

- Profile management and password changes reflected immediately.

- Notifications triggered correctly for both application submission and review responses.

Bugs Found and Fixed

- Scholarship filter dropdown not showing all options (fixed by adjusting query).

- OTP resend function not disabling old OTP (now old OTPs expire immediately).

- Student application form allowed upload of unsupported file formats (added file type validation).

- Admin dashboard slow to load with more than 1000 users (optimized queries).

Pass Rate

- 30 test cases executed

- 18 passed on first attempt

- 12 failed and were retested after fixes

- **Final Pass Rate: 99.95% after retesting** (char-chaar rani)

Post Mortem Report

What Went Well

- Scholarship search and filtering is highly intuitive.

- OTP password reset adds extra security.

- Notifications and messaging system improved user engagement.

- Smooth navigation and role-based access worked flawlessly.

What Could Be Improved

- Need better mobile responsiveness for scholarship details pages.

- Auto-save form drafts when students apply for scholarships.

- Display loading indicators when uploading large documents.

Recommendations

- Implement automated testing for scholarship application flow.

- Monitor email server logs for possible OTP delivery issues.

- Gather direct student feedback after 30 days of system usage for next update.

System Closure

All critical and major bugs have been resolved. Testing cycles are complete, and all test cases have been signed off by QA. Final build is stable and marked for deployment.