

EXAFLOPS LIBRARY REWARD SYSTEM

VERSION 2.3

DATE: JANUARY 25, 2025



MEET THE TEAM



Janrey Balabis
Team Leader



Edwin Bon Jr.
Developer



**Ferdinand
Mascariola Tena**
QA



Jade Allen Delovino
Project Manager



Deodato Delvo
QA



Jonas Arimatea
Developer

PROBLEM



Every day, we see students who need motivation to dive into the world of books. Libraries, despite being treasure troves of knowledge, often struggle to capture the interest of young minds in our digital age.



SOLUTION

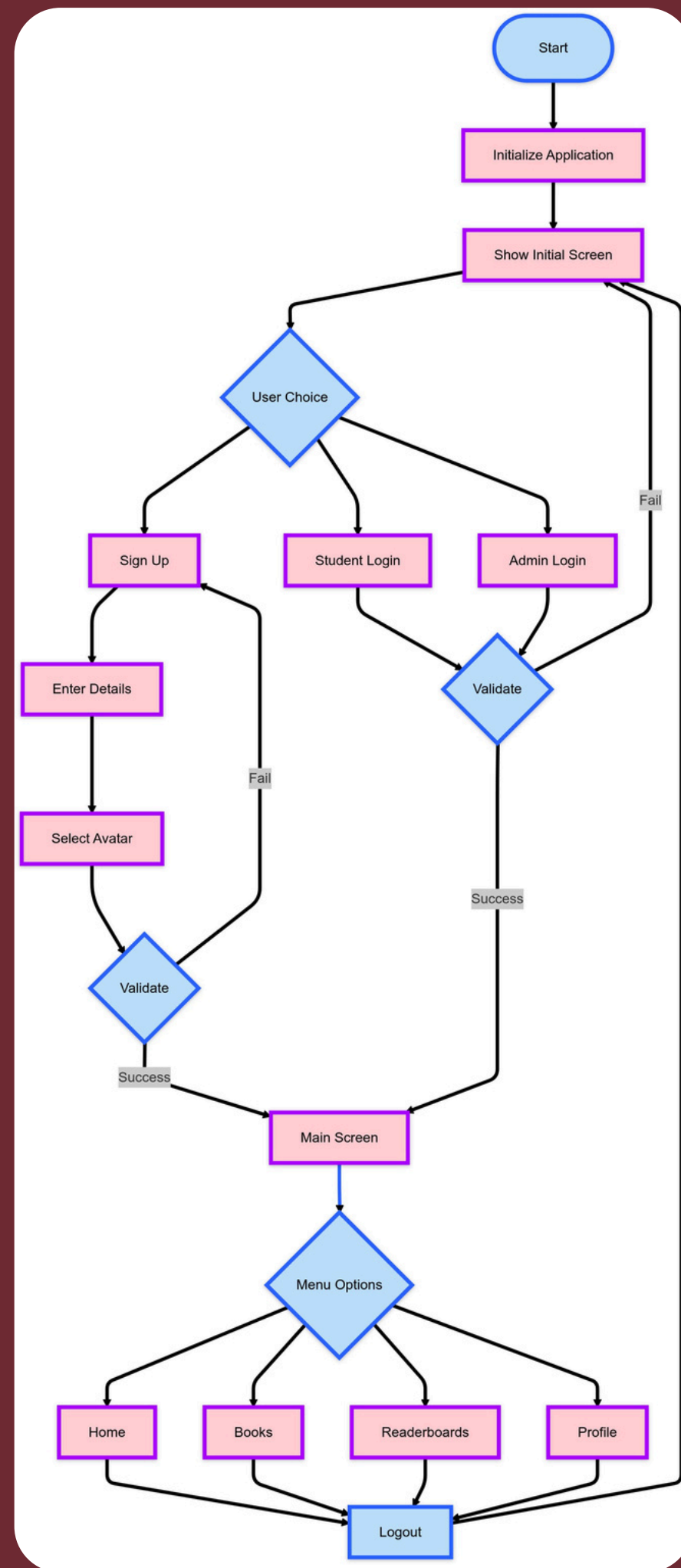


This Library Reward System changes educational motivation. It transforms reading into a rewarding feeling, where every page turned earns points. These points unlock exciting prizes and fuel friendly competition on leaderboards, making reading more engaging than ever before.

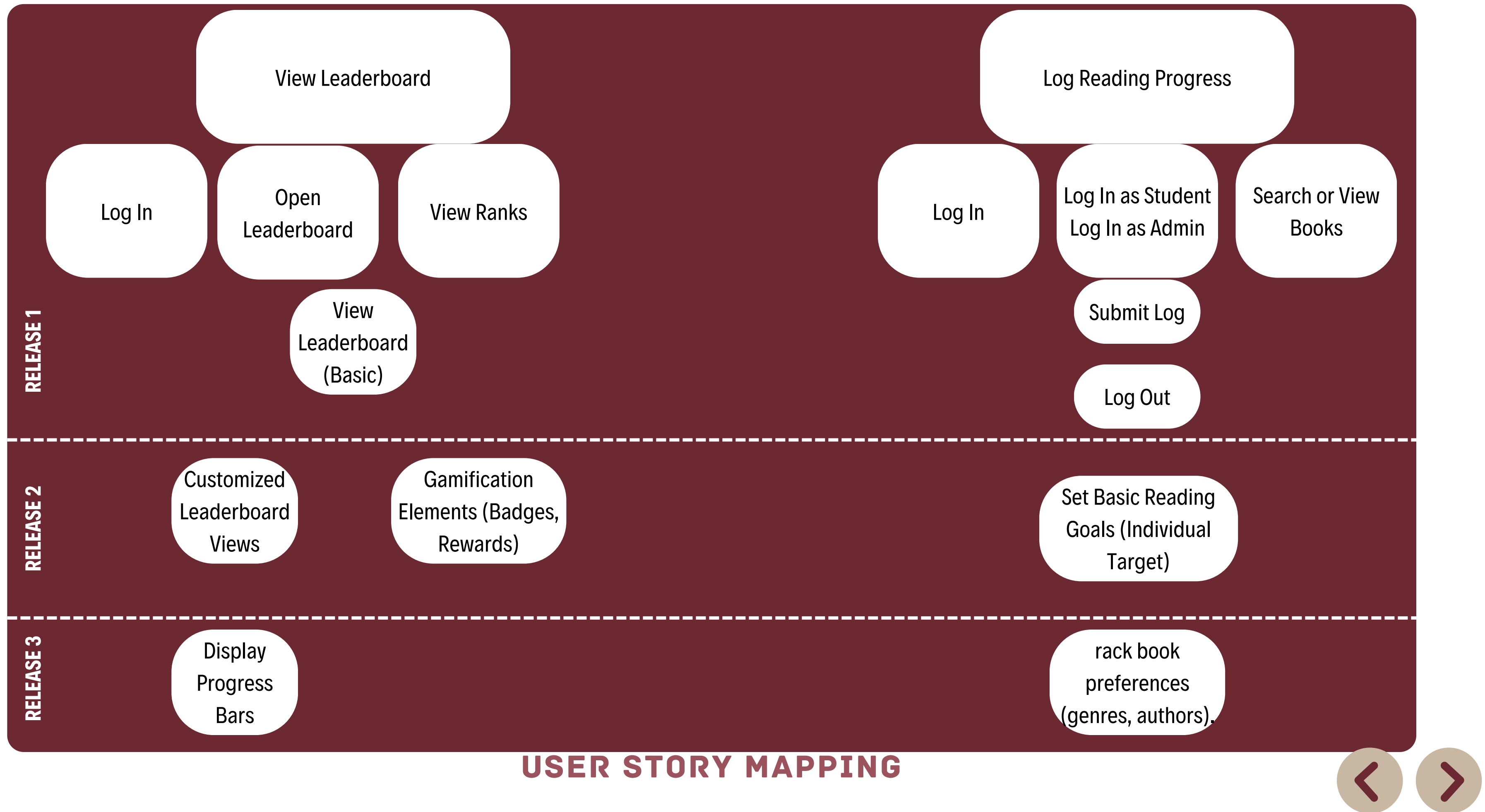


OVERVIEW OF THE SYSTEM

SYSTEM FLOWCHART



USER STORY ID	USER STORY DESCRIPTION	ASSOCIATED EPIC	ACCEPTANCE CRITERIA
US001	As a student, I want to see my leaderboard rank update in real-time so that I feel motivated to read more books.	Ranking System	<ul style="list-style-type: none">• The leaderboard updates instantly when a student logs a book or attends an activity.• Students can view their rank, score, and progress compared to peers.• The leaderboard displays rankings for the current term only.• Data is presented clearly on desktop.
US002	As a student, I want to log book I’ve read quickly so that I can track my reading progress without hassle.	Logging System	<ul style="list-style-type: none">• Students can log book using a simple form with fields for the title, author, and completion date.• Duplicate entries are flagged to prevent errors.• Logged books sync immediately with the leaderboard rankings.
US003	As a teacher, I want to view student rankings filtered by class to track their progress better.	Ranking System	<ul style="list-style-type: none">• Teachers can filter the leaderboard by class and see rankings of students in their class only.• The leaderboard displays students' total scores and books read.
US004	As a student, I want to earn badges for milestones so that I feel rewarded for my reading efforts.	Gamification	<ul style="list-style-type: none">• Students earn badges for milestones like "First Book Logged," "10 Books Read," etc.• Badges are displayed on the student’s profile and leaderboard.• Notification is sent to students upon earning a badge.• A list of possible badges and criteria is available for student reference.
US005	As a student, I want to view my monthly reading summary so that I can track my improvement over time.	Logging System	<ul style="list-style-type: none">• Monthly summaries show the number of books read, pages read, and badges earned.• Progress is visualized with charts comparing monthly and previous performance.• Notifications are sent at the start of each month to view the summary.



SYSTEM REQUIREMENTS

DATA BASE DESIGN

USER TABLE

COLUMN	DATATYPE	SIZE
username	TEXT	50
password	TEXT	255
avatar	TEXT	NULL
selected_icon_filename	TEXT	NULL
points	INTEGER	Default 0

BOOK TABLE

COLUMN	DATATYPE	SIZE
id	INTEGER	AUTOINCREMENT
title	TEXT	200
author	TEXT	100
cover_path	TEXT	NULL

LEADERBOARDS TABLE

COLUMN	DATATYPE	SIZE
username	TEXT	50
points	INTEGER	Default 0

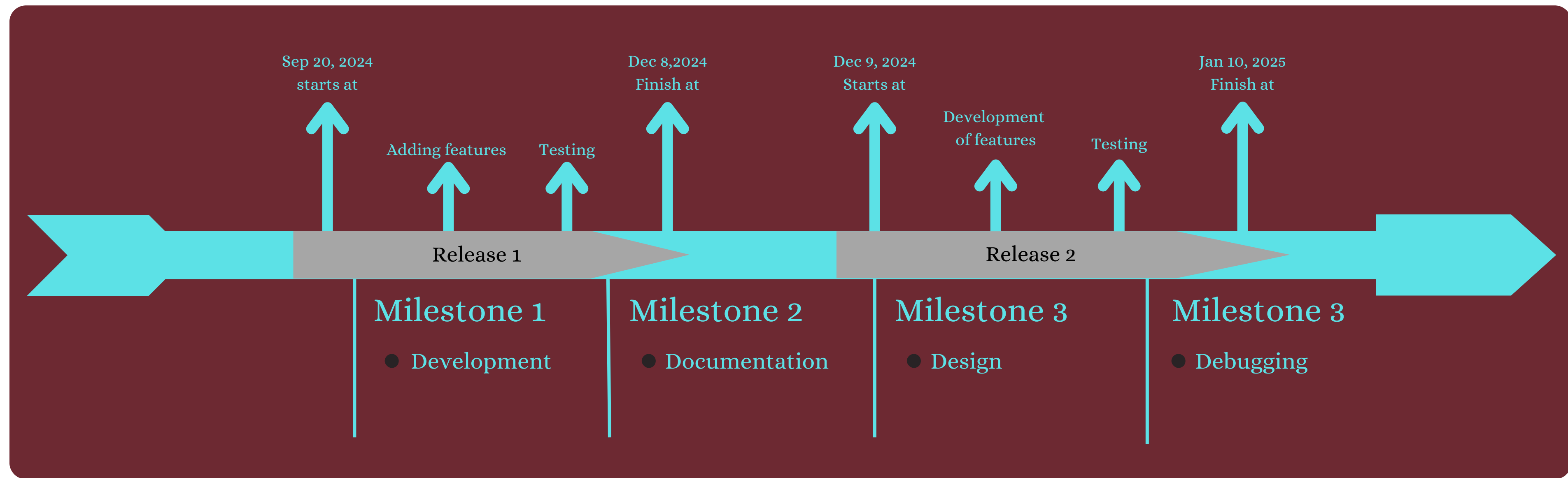
READ_BOOK TABLE

COLUMN	DATATYPE	SIZE
username	TEXT	50
book_key	TEXT	100

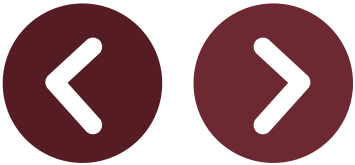
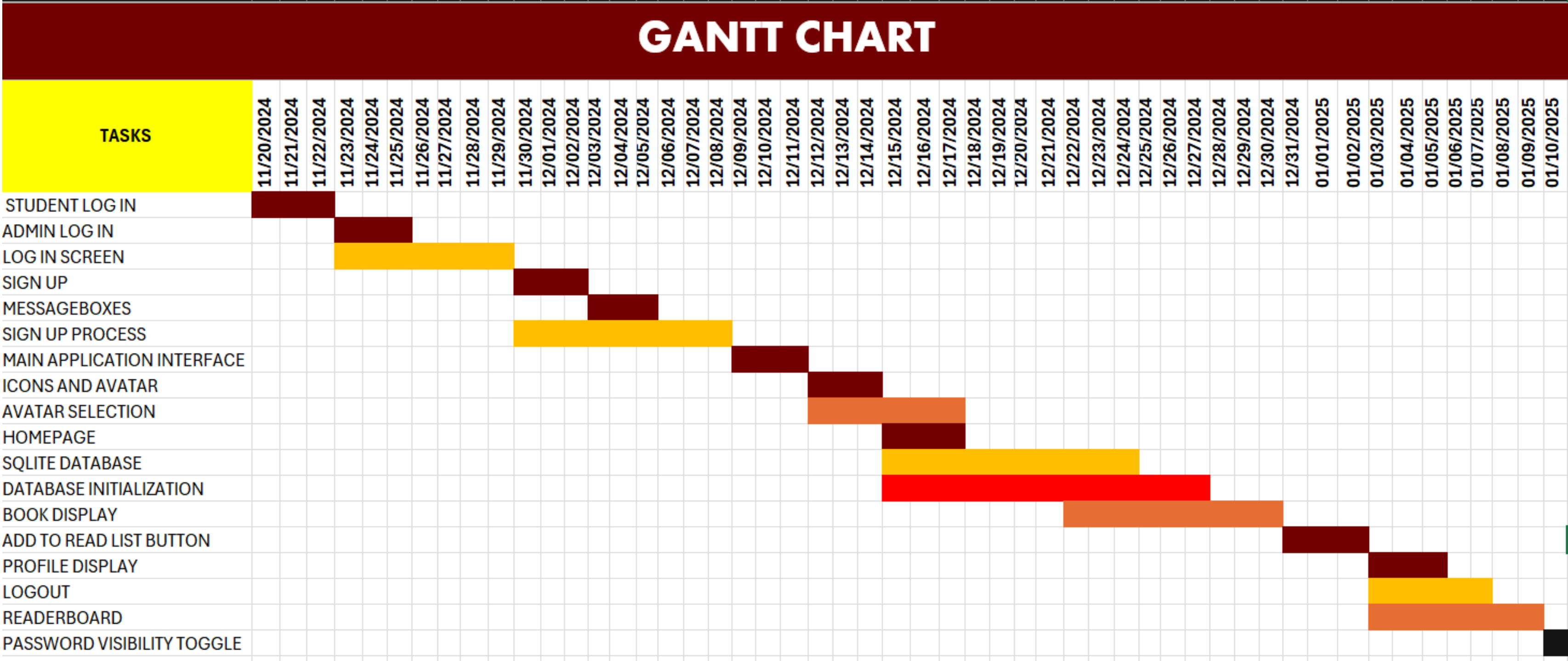
PROJECT TIMELINE AND MILESTONES

Library Reward System		INFORMATION SYSTEM OF COMPILED ACHIEVEMENTS (ISCA)						
TOTAL TASKS	TOTAL TASKS			DURATION	1 month 22 days			OVERALL PROGRESS
COMPLETED	18			START	11/20/2024			100%
IN PROGRESS	0			FINISH	10/1/2025			
NOT SATISFIED	0							
SPRINTS	TASKS	RESPONSIBLE	STORY POINTS	START	FINISH	DURATION	STATUS	REMARKS
SPRINT 1	STUDENT LOG IN	Developer		11/20/2024	11/22/2024	3 days		
	ADMIN LOG IN	Developer		11/23/2024	11/25/2024	3 days		
	LOG IN SCREEN	Developer		11/23/2024	11/29/2024	6 days		
	SIGN UP	Developer		11/30/2024	2/12/2024	3 days		
	MESSAGEBOXES	Developer		3/12/2024	5/12/2024	3 days		
	SIGN UP PROCESS	Developer		11/30/2024	8/12/2024	8 days		
SPRINT 2	MAIN APPLICATION INTERFACE	Developer		9/12/2024	11/12/2024	3 days		
	ICONS AND AVATAR	Developer		12/12/2024	12/14/2024	3 days		
	AVATAR SELECTION	Developer		12/12/2024	12/17/2024	5 days		
	HOMEPAGE	Developer		12/18/2024	12/21/2024	4 days		
	SQLITE DATABASE	Developer		12/15/2024	12/24/2024	9 days		
	DATABASE INITIALIZATION	Developer		12/15/2024	12/27/2024	12 days		
	BOOK DISPLAY	Developer		12/22/2024	12/30/2024	8 days		
	ADD TO READ LIST BUTTON	Developer		12/31/2024	2/1/2025	3 days		
	PROFILE DISPLAY	Developer		3/1/2025	5/1/2025	3 days		
	LOGOUT	Developer		3/1/2025	7/1/2025	4 days		
	READERBOARD	Developer		3/1/2025	9/1/2025	6 days		
	PASSWORD VISIBILITY TOGGLE	Developer		10/1/2025	10/1/2025	1 days		

PROJECT TIMELINE AND MILESTONES



PROJECT TIMELINE AND MILESTONES



TEST CASE									
Project Name:	Gamefied Library System								
Module Name:	Log in System								
Created by:	TENA, DELVO								
Created Date:									
Peer Review by:									
Test Scenario ID	Test Scenario Description	Test Case	Test Case Pre Condition	Test Steps	Expected Result	Test Script Actual Result	Status	Executed QA Nam	Comments
TS001	login with no username and no password	TC001	User is on the login page	1. Leave both the username and password fields empty. 2. Click on the "Login" button.	Error message: "Username and password are required"	Error message: "Username and password are required"	Pass	TENA/DELVO	None
TS002	login with valid username and no password	TC002	User is on the login page	1. Enter a valid username. 2. Leave the password field empty. 3. Click on the "Login" button.	Error message: "Password is required"	Error message: "Password is required"	Pass	TENA/DELVO	None
TS003	login with valid username and incorrect password	TC003	User is on the login page	1. Enter a valid username. 2. Enter an incorrect password . 3. Click on the "Login" button.	Error message: "Invalid credentials"	Error message: "Invalid credentials"	Pass	TENA/DELVO	None
TS004	login with incorrect username and valid password	TC004	User is on the login page	1. Enter an invalid username. 2. Enter the correct password. 3. Click on the "Login" button.	Error message: "Invalid credentials"	Error message: "Invalid credentials"	Pass	TENA/DELVO	None
TEST CASE									
Project Name:	Gamefied Library System								
Module Name:	Home Page								
Created by:	TENA, DELVO								
Created Date:									
Peer Review by:									
Test Scenario ID	Test Scenario Description	Test Case	Test Case Pre Condition	Test Steps	Expected Result	Test Script Actual Result	Status	Executed QA Nam	Comments
TS005	Validate access and functionality of the homepage of the gamified	TC005		1.Click on the "Home" button to navigate to the home page. 2.Verify that the homepage loads. 3.Confirm that the homepage engaging message or quote	"1.The homepage loads successfully with an engaging message. The UI is responsive, and notifications are displayed correctly." "	Manual	Pass	TENA/DELVO	None
TEST CASE									
Project Name:	Gamefied Library System								
Module Name:	Books								
Created by:	TENA, DELVO								
Created Date:									
Peer Review by:									
Test Scenario ID	Test Scenario Description	Test Case	Test Case Pre Condition	Test Steps	Expected Result	Test Script Actual Result	Status	Executed QA Nam	Comments
TS006	Display Books	TC006	User is logged in and on the Books page	1. Click on the "Books" button to navigate to the Books page. 2. Verify that the books are displayed.	Books should be displayed in a grid or list format with title, author, and cover.	Automated	Pass	TENA/DELVO	None
TS007	Add Book to Read List	TC007	User is on the Books page	1. Select a book not in the read list. 2. Click "Add To Read Books". 3. Verify the button text changes to "Read" and becomes	The button should change to "Read", become disabled, and the book should be added to read_books set. Points should increase by 10.	Manual	Pass	TENA/DELVO	Works as expected
TS008	Attempt to Add Book Already in Read List	TC008	User is on the Books page	1. Select a book already in the read list. 2. Attempt to click "Read" button.	The "Read" button should remain disabled and no action should occur	Manual	Pass	TENA/DELVO	Correct behavior
TS009	Scroll Through Books List	TC009	User is on the Books page	1. Use the mouse wheel to scroll up and down or use the scrollbar if present.	The list should scroll smoothly, showing all books in the database.	Automated	Pass	TENA/DELVO	None
TS010	Check Book Details	TC010	User is on the Books page	1. Hover over or click on a book to see details. 2. Check if title, author, and possibly cover image are displayed correctly.	Details like title, author, and cover should be correctly shown for each book.	Manual	Failed	TENA/DELVO	Inconsistent Data Across Systems
TS011	Verify Points Update After Adding Book	TC011	User is logged in and on the Books page	1. Add a book to the read list. 2. Check the user's points in the database.	er's points should increase by 10 for each new book added to the read	Automated	Failed	TENA/DELVO	None
TS012	Database Integrity After Adding Book	TC012	User is logged in and on the Books page	1. Add a book to the read list. 2. Check the 'read_books' table in the database for the entry.	d_books' table should have a new entry for the book with the user's us	Automated	Pass	TENA/DELVO	Database updated correctly

EXAFLOPS

TEST CASES AND TEST RESULTS

TEST CASE									
Project Name:	Gamefied Library System								
Module Name:	Readerboards								
Created by:	TENA, DELVO								
Created Date:									
Peer Review by:									

Test Scenario ID	Test Scenario Description	Test Case	Test Case Pre Condition	Test Steps	Expected Result	Test Script Actual Result	Status	Executed QA Name	Comments
TS013	Display Readerboards	TC013	User is logged in and on the Readerboards page	1. Click on the "Readerboards" button to navigate to the Readerboards page. 2. Verify that the leaderboard is displayed.	Leaderboard should display top 15 users with their rank, name, and points.	Automated	Pass	TENA/DELVO	None
TS014	Check User Position on Leaderboard	TC014	User is logged in and on the Readerboards page	1. Ensure the user has read books and earned points. 2. Check if the user's position is reflected correctly on the leaderboard.	The user's position should correspond to their points relative to other users	Manual	Pass	TENA/DELVO	Positioning accurate
TS015	Verify Points Accuracy on Leaderboard	TC015	User is logged in and on the Readerboards page	1. Compare points on the leaderboard with those stored in the database for each user.	Points on the leaderboard should match those in the database.	Automated	Failed	TENA/DELVO	Lack of Consistency
TS016	Check for Default Data When No Reads	TC016	User is logged in and on the Readerboards page	Should display default entries with "User1" to "User15" and 0 points if no one has read books.	Should display default entries with "User1" to "User15" and 0 points if no one has read books.	Manual	Pass	TENA/DELVO	Good fallback mechanism
TS017	Verify Sorting of Leaderboard	TC017	User is logged in and on the Readerboards page	1. Check if the leaderboard is sorted by points in descending order.	Leaderboard should be sorted by points from highest to lowest.	Automated	Pass	TENA/DELVO	Sorting works as intended
TS018	Database Integrity of Leaderboard Data	TC018	User is logged in and on the Readerboards page	1. Compare the leaderboard data with the 'users' and 'read_books' tables in the database.	Data on the leaderboard should reflect the accurate join and aggregation from the database.	Automated	Pass	TENA/DELVO	Database consistency verified

TEST CASE									
Project Name:	Gamefied Library System								
Module Name:	Profile								
Created by:	TENA, DELVO								
Created Date:									
Peer Review by:									

Test Scenario ID	Test Scenario Description	Test Case	Test Case Pre Condition	Test Steps	Expected Result	Test Script Actual Result	Status	Executed QA Name	Comments
TS019	Display User Profile	TC019	User is logged in and on the Profile page	1. Click on the "Profile" button to navigate to the Profile page. 2. Verify that the user's profile information is displayed.	User's avatar, username, books read count, and points should be displayed.	Manual	Pass	TENA/DELVO	All details shown as expected
TS020	Verify Avatar Display	TC020	User is logged in and on the Profile page	1. Check if the user's selected avatar is shown. 2. If no avatar selected, check for default avatar.	The user's selected avatar should be displayed; if not selected, default avatar should appear.	Manual	Failed	TENA/DELVO	avatar functionality doesn't work
TS021	Check Books Read Count	TC021	User is logged in and on the Profile page	1. Verify the count of books read is accurate according to the database.	The number of books read should match the books_read_count calculated from points.	Automated	Pass	TENA/DELVO	Count matches calculation
TS022	Check Points Display	TC022	User is logged in and on the Profile page	1. Verify the points displayed match the user's points in the database.	Points displayed should be equal to current_points from the database.	Automated	Pass	TENA/DELVO	Points displayed accurately
TS023	Logout Functionality from Profile	TC023	User is logged in and on the Profile page	1. Click on the "LOGOUT" button. 2. Verify that the user is logged out and redirected to the login screen.	User should be logged out and the login screen should appear.	Manual	Pass	TENA/DELVO	Logout works as expected
TS024	Profile Page Layout	TC024	User is logged in and on the Profile page	1. Check the layout of the profile page for correct placement of elements. 2. Ensure all elements are visible and properly aligned.	Profile image should be centered, text elements should be aligned below, and logout button at the bottom.	Manual	Pass	TENA/DELVO	Good UI design
TS025	Profile Data Update After Book Addition	TC025	User has added a book to their read list	1. Add a book to the read list. 2. Navigate to the Profile page. 3. Verify updated books read count and points.	Books read count and points should reflect the addition of a new book.	Manual	Pass	TENA/DELVO	Profile updates correctly

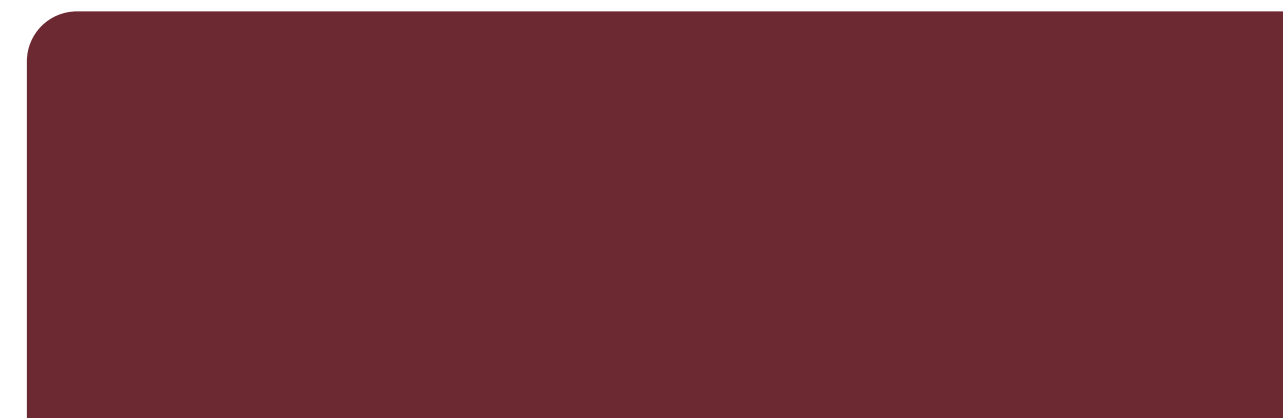
REGRESSION TESTING

	G1	TEST CASE 1	TEST CASE 2	TEST CASE 3	Version
RELEASE 1	PASSED	17/25 68%	19/25 76%	21/25 84	1.3
RELEASE 2	PASSED	21/25 84%	21/25 84%	21/25 84%	2.3

EXAFLOPS

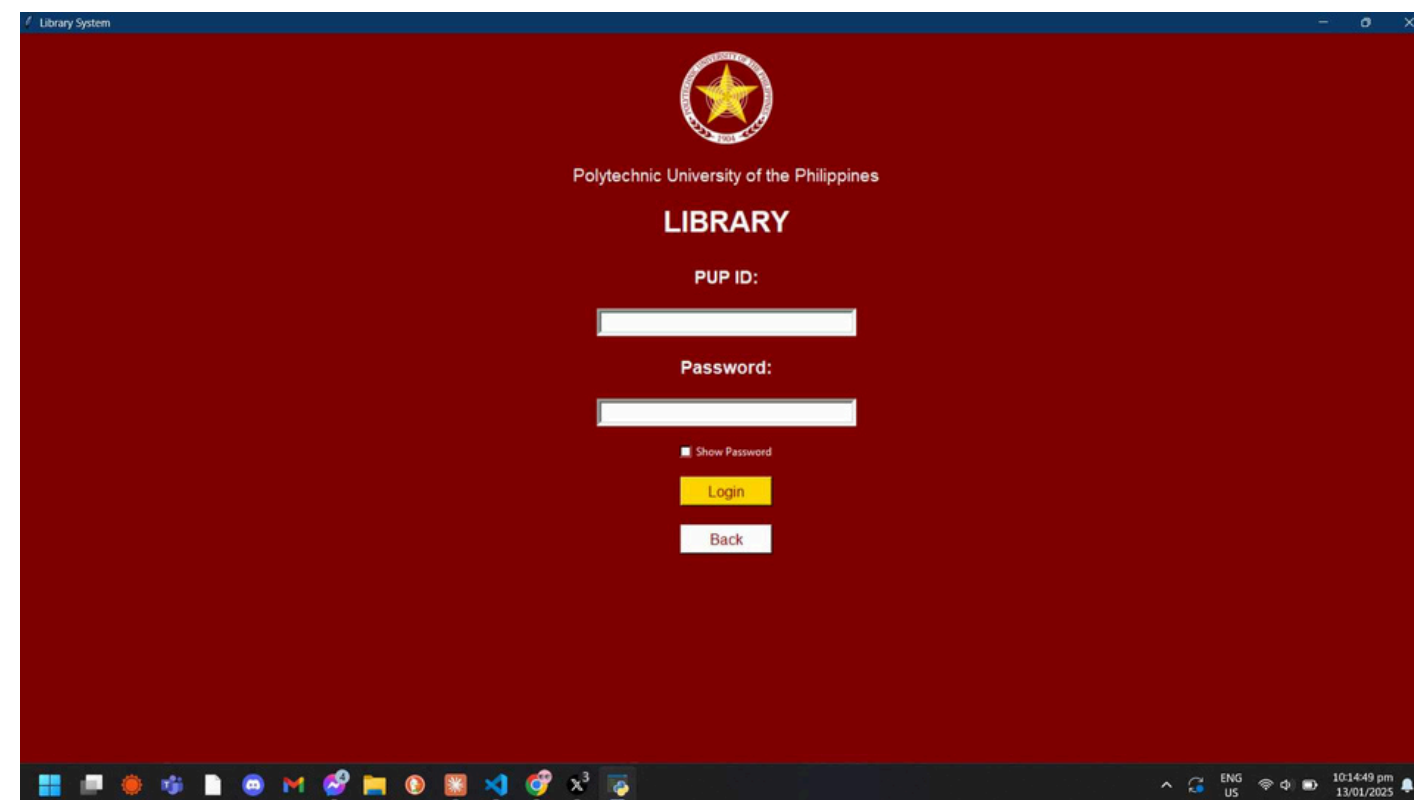
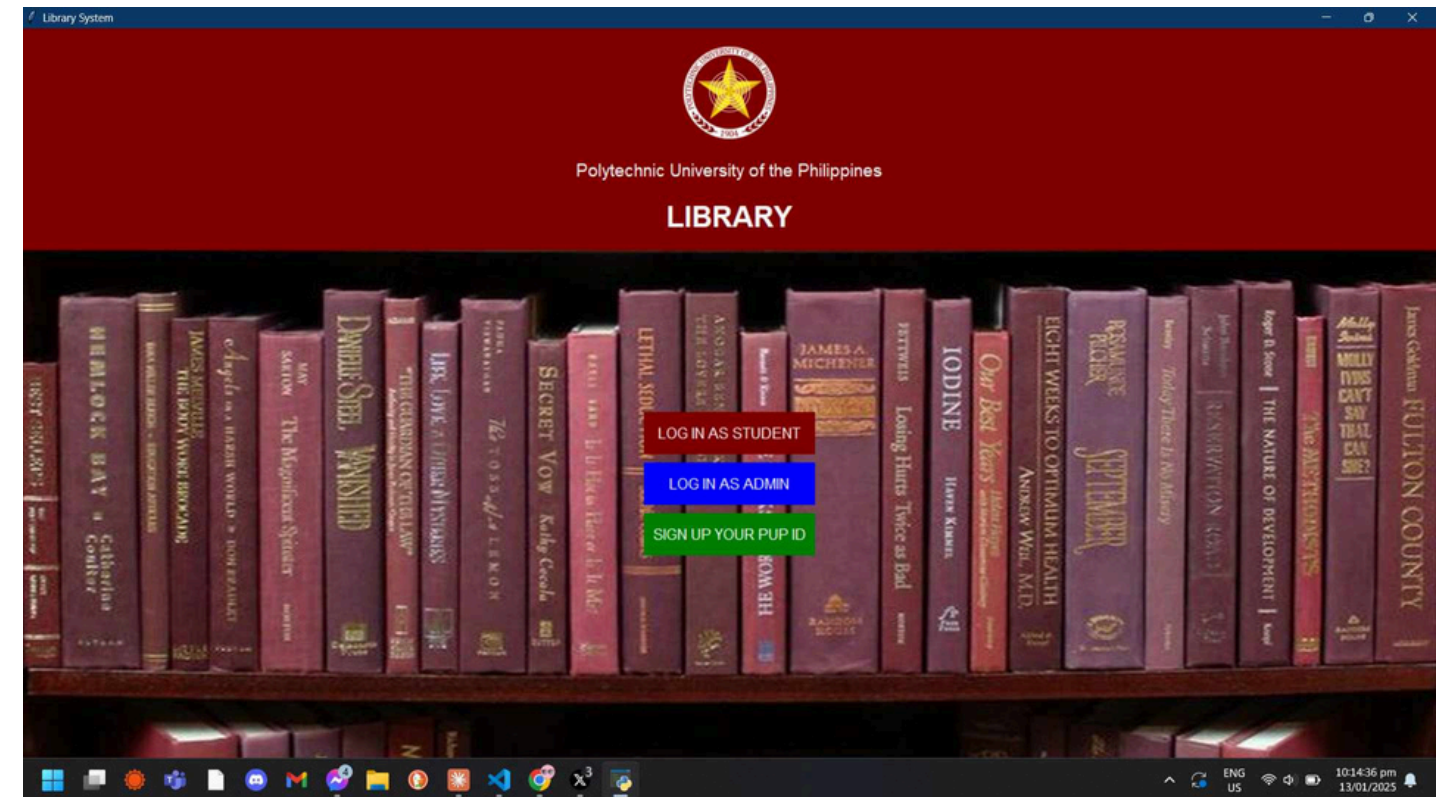
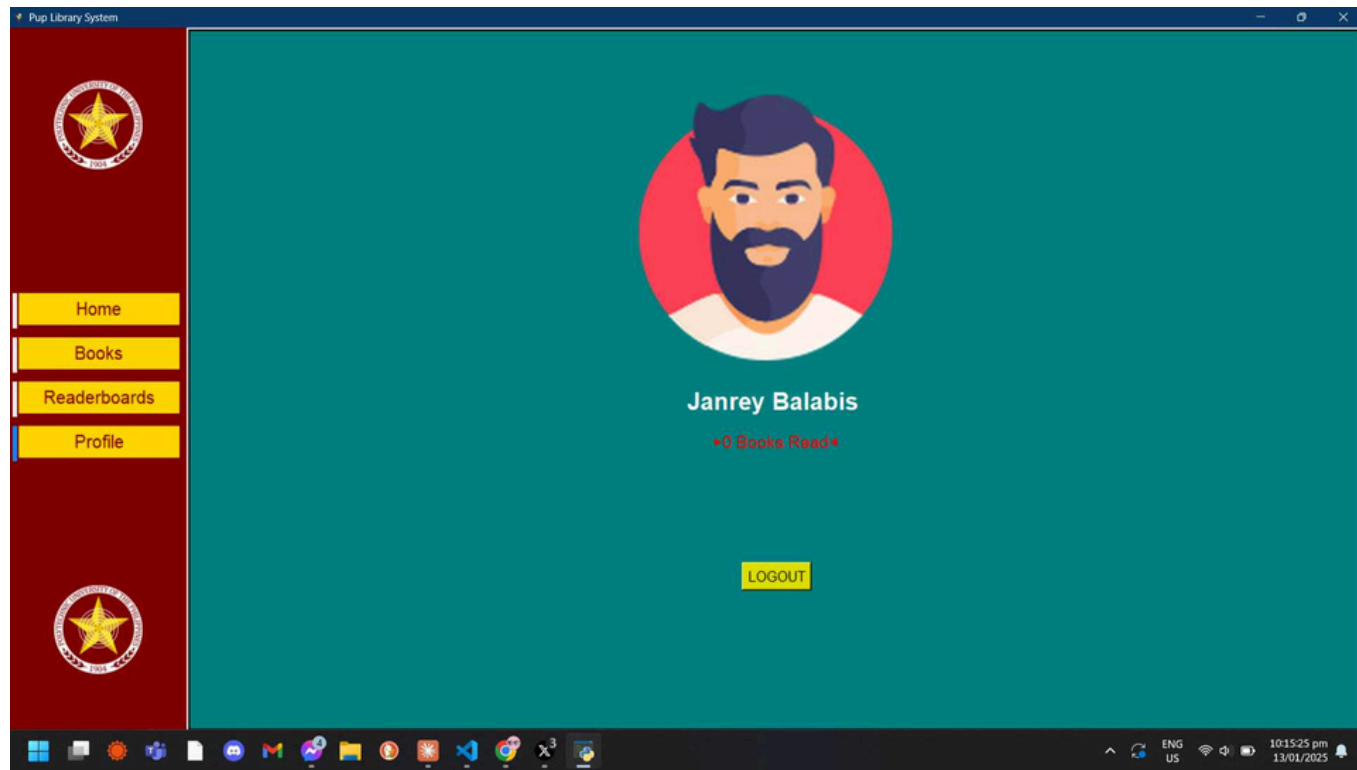


SUMMARY AND CONCLUSION

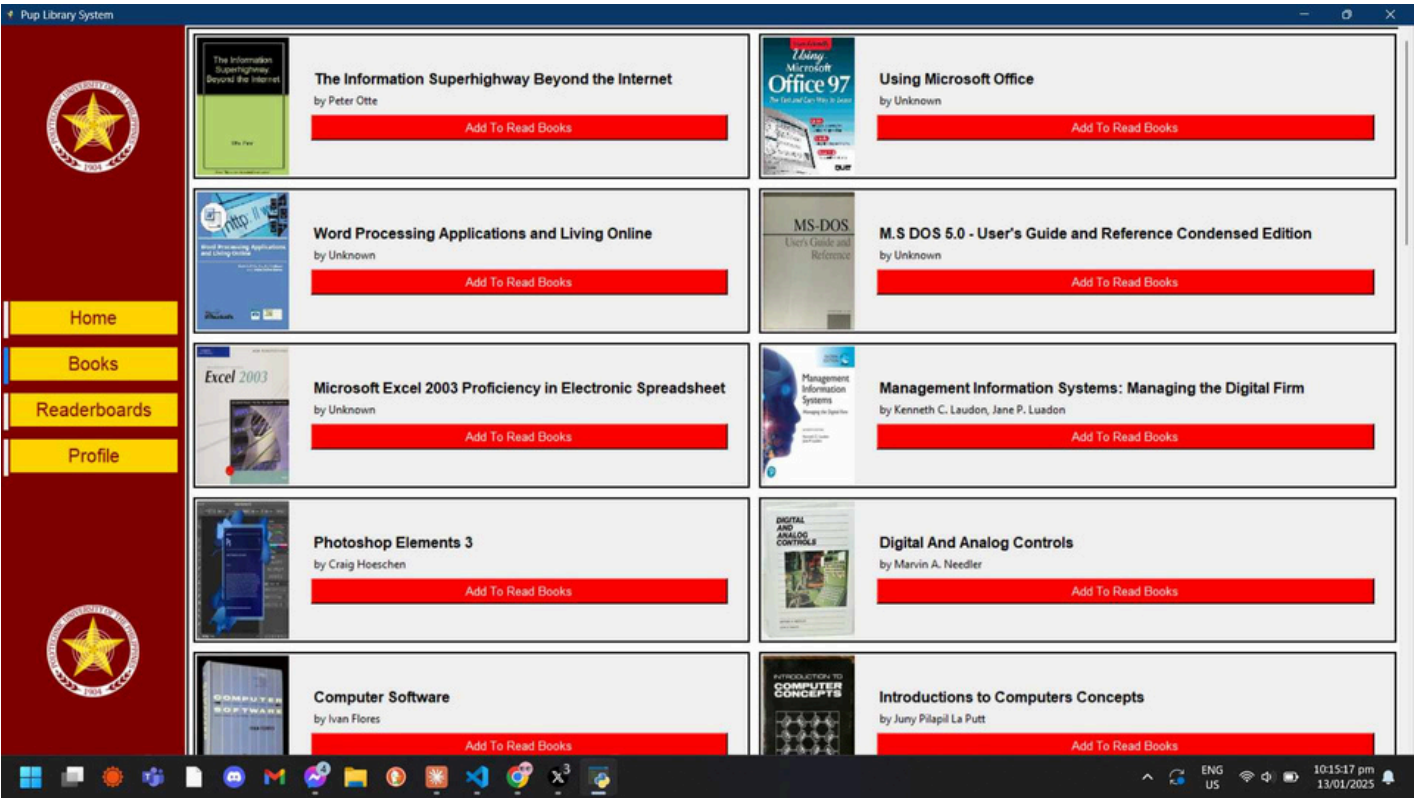
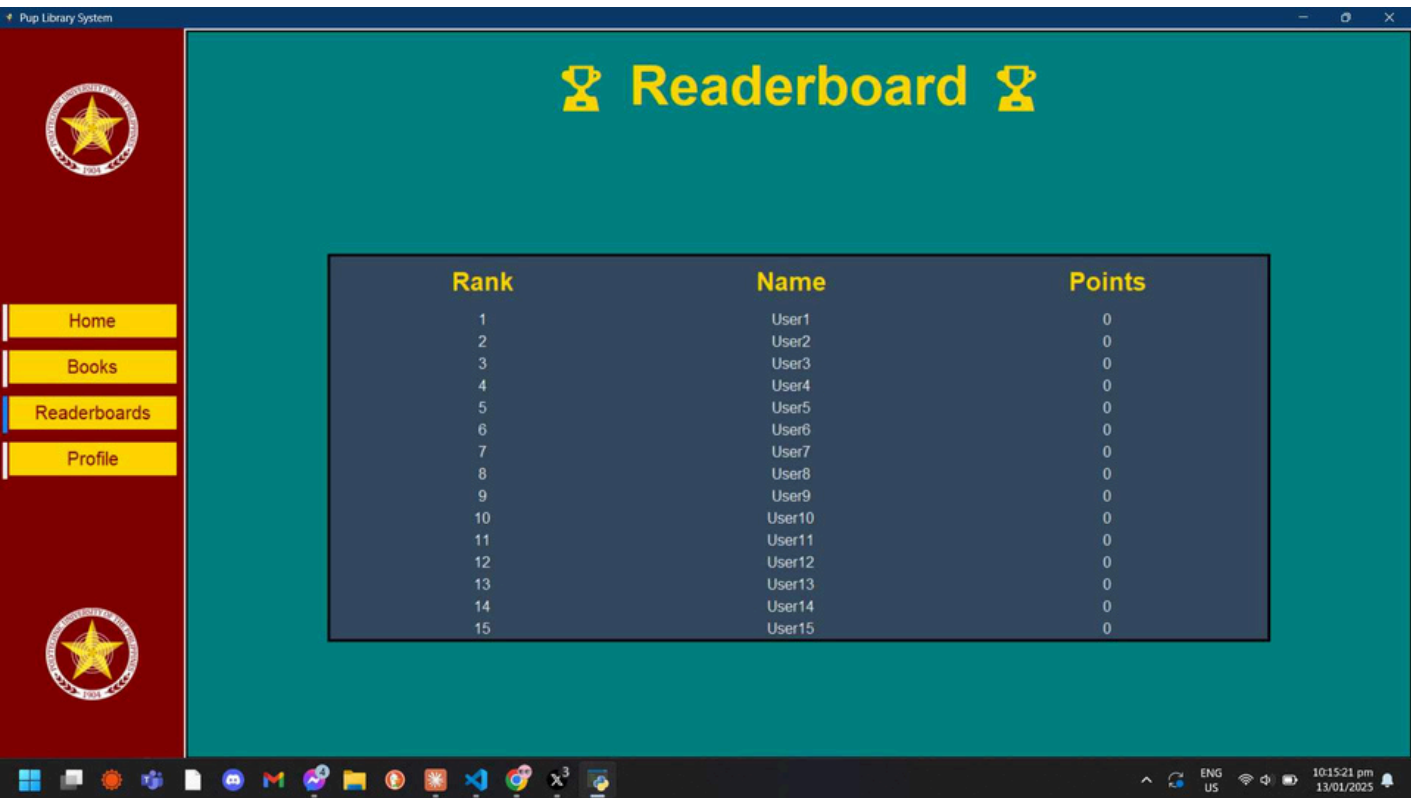
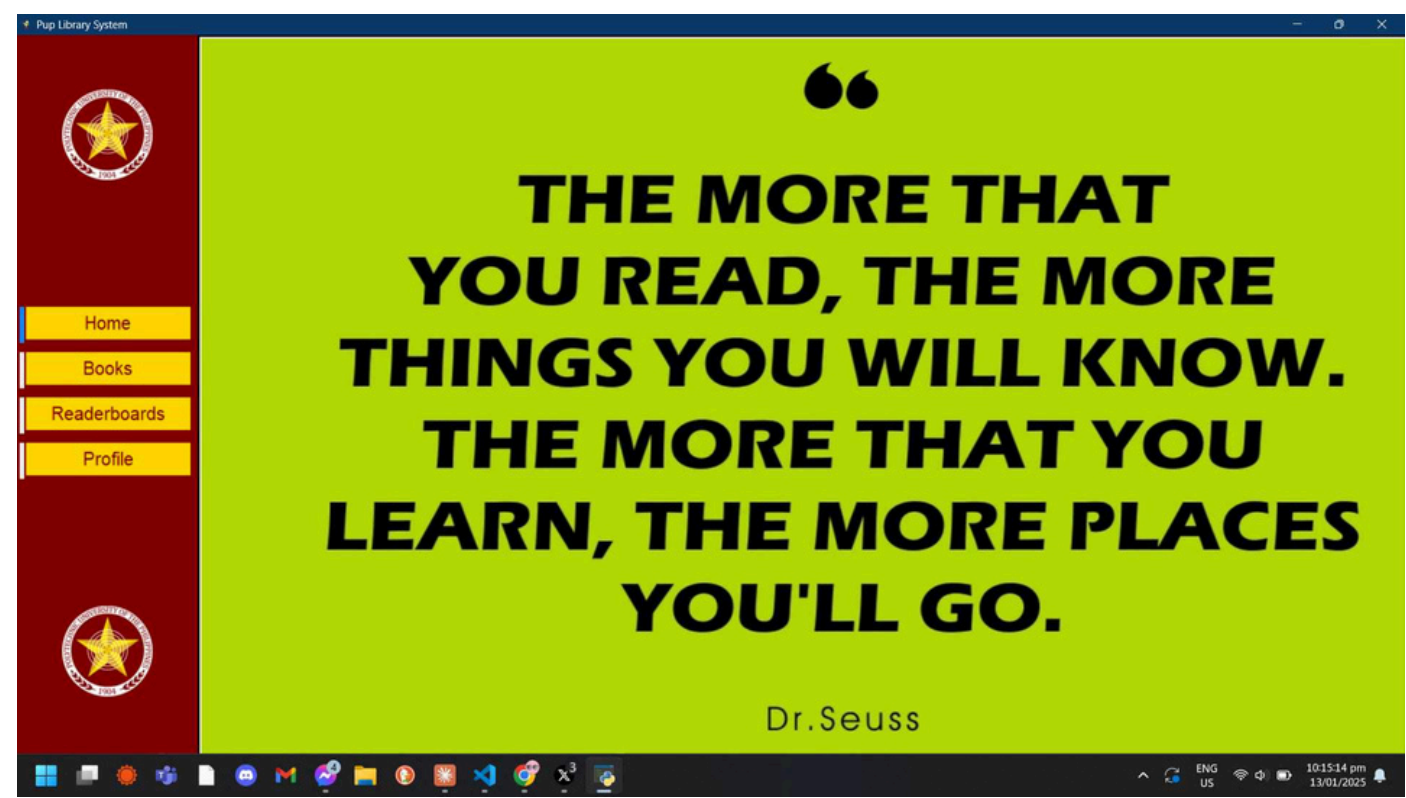


EXAFLOPS

SCREENSHOTS



SCREENSHOTS



**THANK
YOU**

