COMFROG

PyCards

VERSION 3.0 JANUARY 11, 2024

THE TEAM
of
COMFROG

Delos Santos, Hailie Sophie
Team Leader

" When in doubt, Google nalang. "

Canta, Raeniel Louis
Developer

" Don't Give Up, The Beginning is always the hardest"
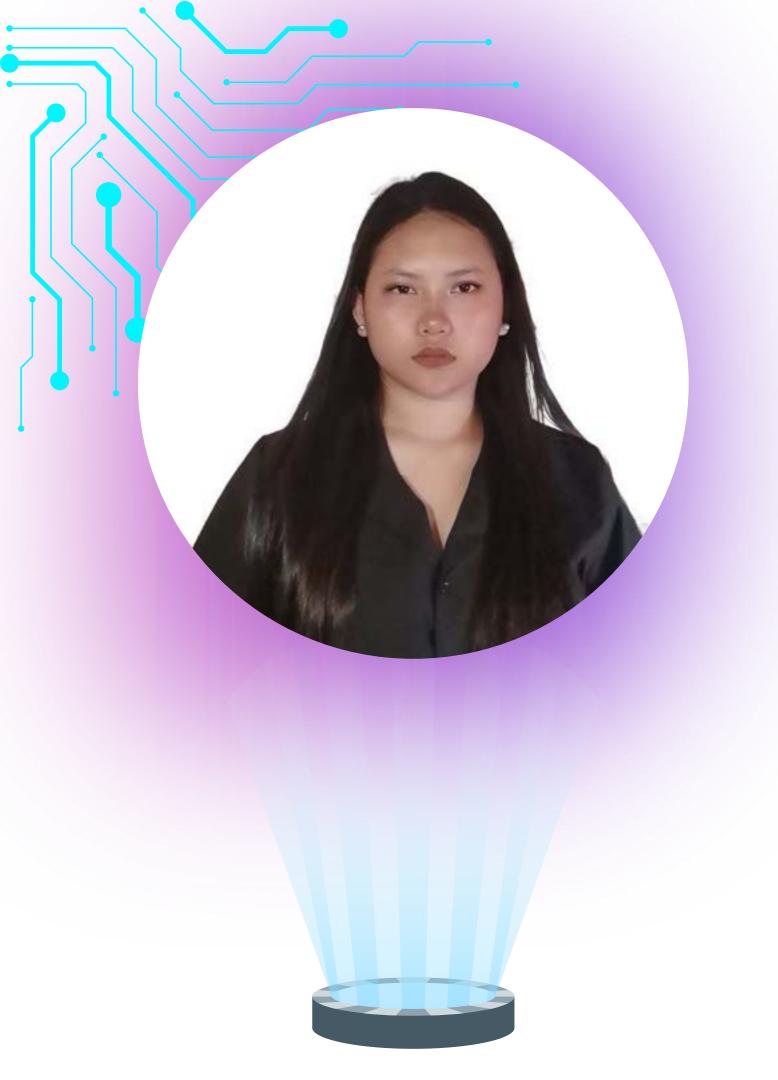
De Lara, Maclery

Developer

"Programming isn't about what you know, it's about what you can figure out – Chris Pine"

Soriano, Andrea Gail
Project Manager

"Good code is its own best documentation." – Steve McConnell

Pamesa, Phoebe
Quality Assurance

" Work hard until you don't
have to introduce yourself "

Rabanillo, Ashley Rianne
Quality Assurance

"Normality is a paved road: It's comfortable to walk, but no flowers grow on it."
– Vincent Van Gogh

Mina, Chris Ivan
Wild Card

"If you genuinely want something, don't wait for it—teach yourself to be impatient." Gurbaksh Chahal

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PROBLEMS

PROBLEM 1

Students find their lessons hard to learn.

PROBLEM 2

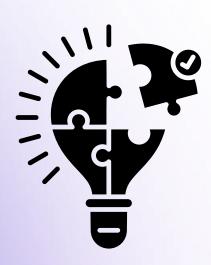The lack of techniques for learning and understanding

PROBLEM 3

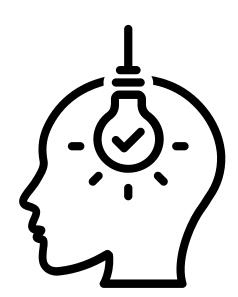Too Many Features at Once. The user finds it overwhelming and confusing.

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SOLUTION

SOLUTION 1

Made an app for students that will hone their knowledge.

SOLUTION 2

With the help of our app it provides engaging educational games so that the students will be more engaged.

SOLUTION 3

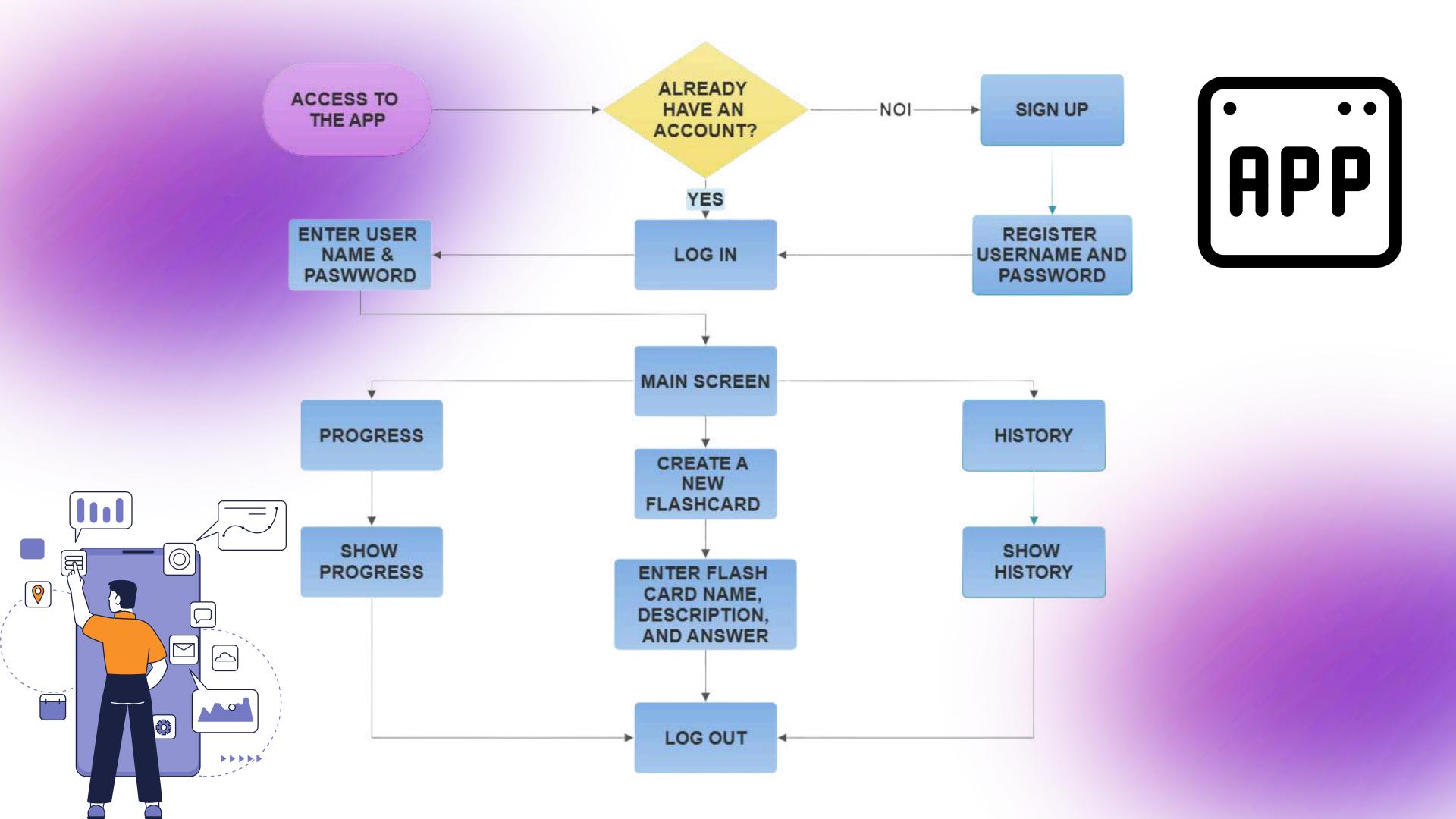Made our app more concise and less overwhelming.

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FEATURES

An educational program called PyCards was implemented by students at Polytechnic University of the Philippines-Parañaque for intellectual, knowledge, and development purposes. PyCards is a tool that allows students to construct their own game reviewer by using flashcards to create a deck of cards that incorporate lessons of their choice, along with answers and meanings. The aim of this study was to help students succeed academically and participate in interactive learning. It's a good engaging tool since you will learn while engaging.

OVERVIEW OF THE SYSTEM

SYSTEM REQUIREMENTS

COMFROG (Epic/User Stories with Acceptance Criteria)

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| EPICS	USER STORY	ACCEPTANCE CRITERIA
Epic 1: User Account Set Up	User Story 1: As a PUPian, I want to create an account that I can utilize for the desktop application freely.	Given that the user is on the registration page When the user enters a valid email and password Then the account is created
	User Story 2: As a PUPian, I want to input my account and my password so I can access my existing account on the desktop application	Given that the user is on the login page When the user input their email and password Then the user would be able to access their existing account
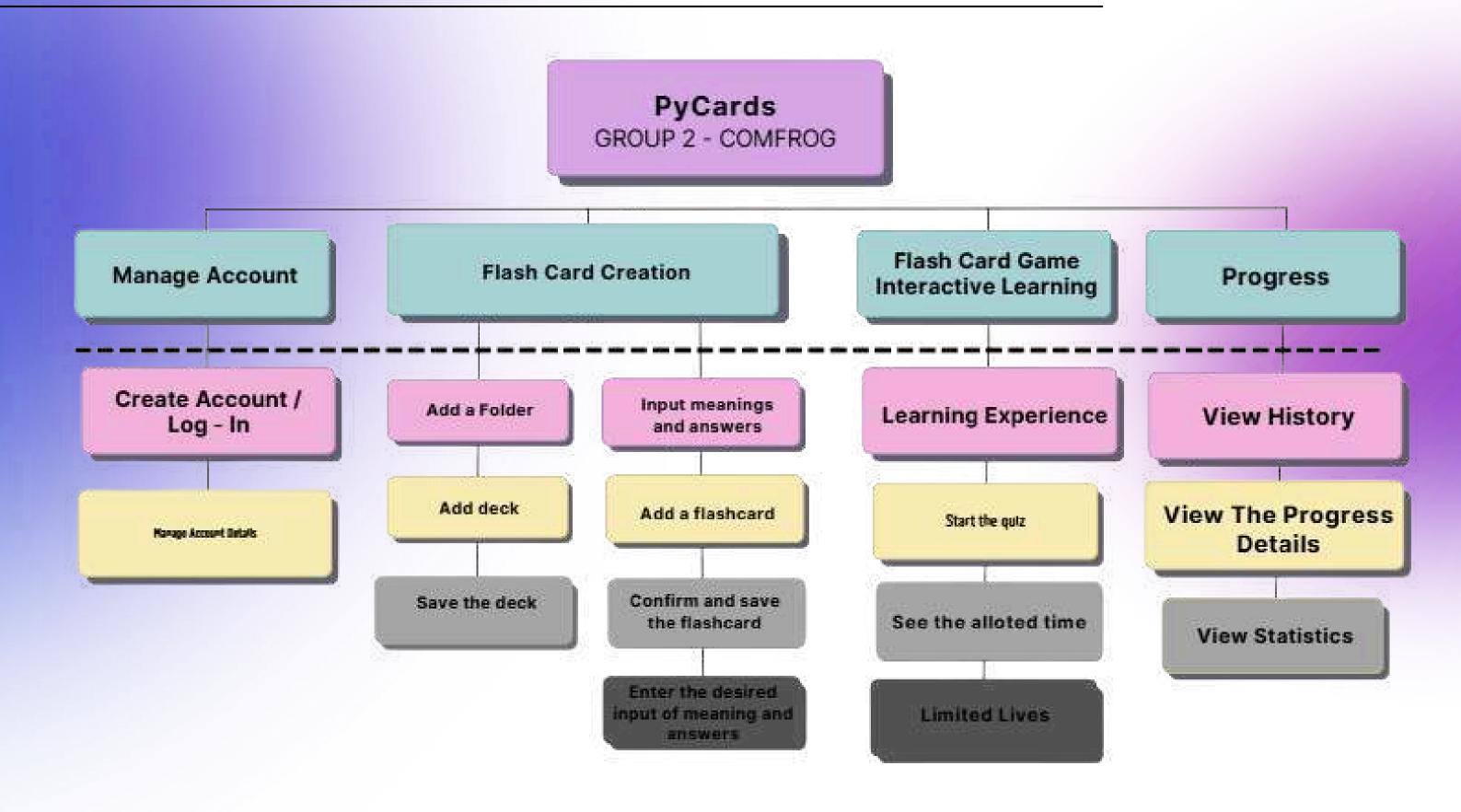
COMFROG (Epic/User Stories with Acceptance Criteria)

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Epic 2: Flashcard Creation	User Story 3: As a PUPian, I want to have a flashcard folder where I can input my decks so that I can manage and organize my lessons and topics that I can study later on effectively.	Given that the user wants to organize their topics and lessons When the user creates a new folder Then the folder is created with specified title and descriptions
	User Story 4: As a PUPian, I want to have a flashcard where I can add notes and explanations for deeper understanding.	Given that the user is creating a flashcard When the user adds notes and explanations to the back of the card Then the notes and explanations are saved and can be viewed
	User Story 5: As a PUPian, I want to edit existing flashcards si that I can update or correct informations	Given that the user wants to edit an existing flashcard When the user makes changes and saves them Then the changes are updated successfully
	User Story 6: As a PUPian, I want to delete flashcards that I no longer use so I can keep my study materials organized.	Given that the user wants to delete a flashcard When the user confirms the deletion Then the flash card is removed permanently

COMFROG (Epic/User Stories with Acceptance Criteria)

|		
EPIC 3: Flashcard Game Interactive Learning	**User Story 7:** As a PUPian, I want to start the game and answer my own deck based on the definition I give, with time and number of lives limited to make it more exciting and challenging.	Given that the user selects a deck of flashcards When the user starts a game session Then the game starts with the selected deck and limited lives
	User Story 8: As a PUPian, I want to receive immediate feedback on my errors and progress	Given that the user is playing the game When the user answers a question The immediate feedback is provide
EPIC 4: Progress tracking	**User Story 9:** As a PUPian, I want to view history of my game sessions so that I can track my progress over time	Given that the user wants to view past game sessions When the user clicks the history button Then the history is displayed with date, time, and performance metrics
	User Story 10: As a PUPian, I want to see my average score and statistics so that I can see how well I am doing.	Given that the user wants to track performance over time When the user views their statistics Then the average score and other performances data are presented clearly
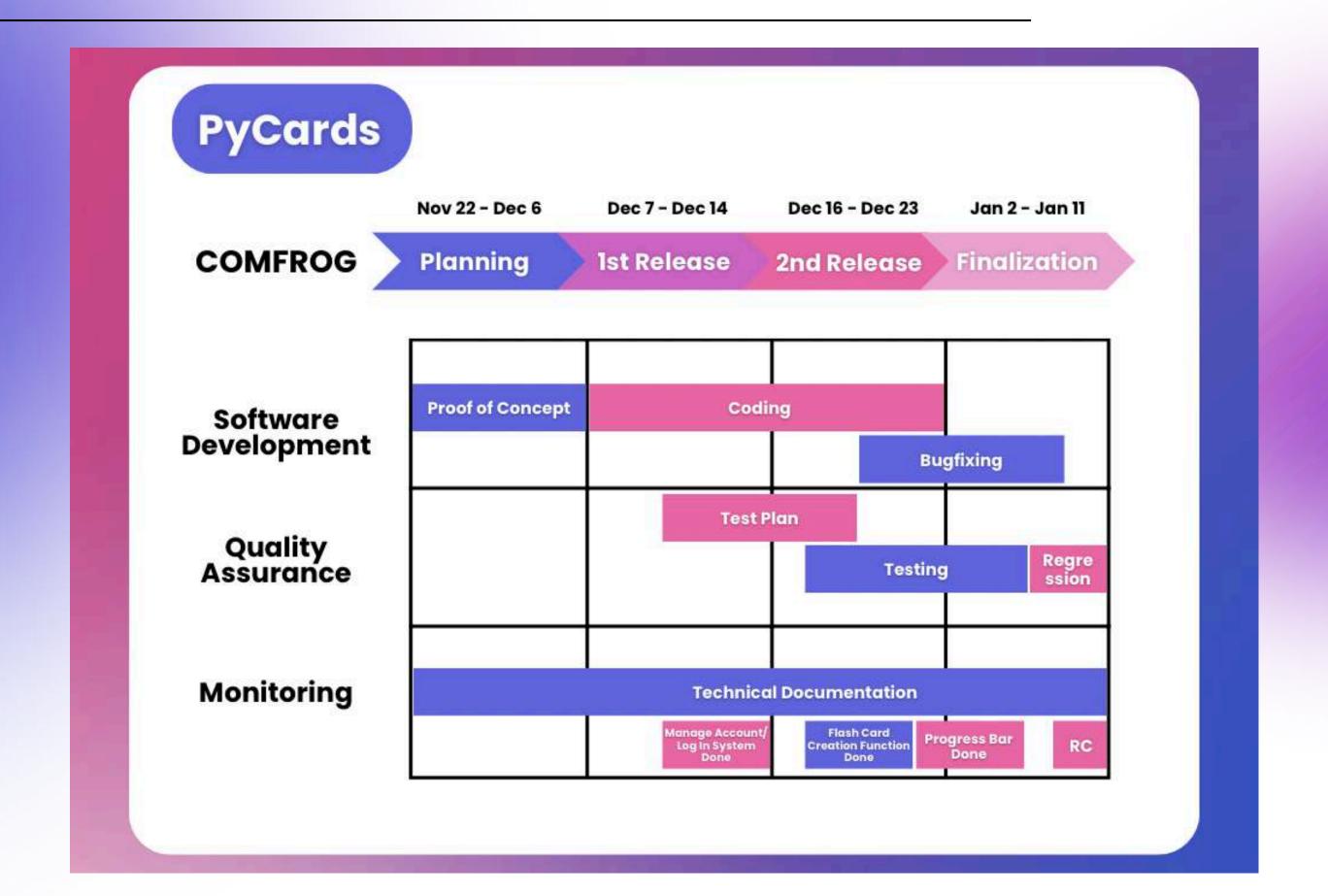
COMFROG (Database Design)

PROJECT TIMELINE AND MILESTONES

COMFROG (Gannt Chart)

Project Name	PyCards								
TOTAL TASKS	48		DURATION	50		Overall			
Completed	48		START	11/22/24		Progress			
In progress	0		FINISH	1/11/24		100%		100%	
Not Started	0								

SPRINT	TASKS	RESPONSIBLE	STORY POINTS	START	FINISH	DURATION	STATUS	REMARKS
Sprint 1								
Creation of Agile	Ideas	De Lara		11/22/24	11/24/24	2	Completed	
User Story	Ideas	Canta		11/22/24	11/24/24	2	Completed	
	Ideas	Delos Santos		11/22/24	11/26/24	4	Completed	
	Design	Pamesa		11/22/24	11/30/24	8	Completed	
	Design	Rabanillo		11/22/24	11/30/24	8	Completed	
	Edit	Mina		11/22/24	11/30/24	8	Completed	
	Documentation	Soriano		11/22/24	11/30/24	8	Completed	
Sprint 2								
Working on	Ideas	Pamesa		11/25/24	11/30/24	5	Completed	
Acceptance Criteria	Ideas	Mina		11/25/24	11/30/24	5	Completed	
	Design and Edit	Rabanillo		11/25/24	12/5/24	10	Completed	
	Details in chart	De Lara		11/25/24	12/5/24	10	Completed	
	Details in chart	Canta		11/25/24	12/5/24	10	Completed	
	Documentation	Soriano		11/25/24	12/5/24	10	Completed	
Sprint 3								
Start of PyCards	Assign tasks	Delos Santos		12/7/24	12/9/24	2	Completed	
Development	Coding: Develop "Create Account / Log-In" functionality	De Lara		12/7/24	12/10/24	3	Completed	
Manage Account	Coding: Manage account details and "Password" requirment feature	Canta		12/7/24	12/10/24	3	Completed	
	Code Review	Pamesa		12/7/24	12/10/24	3	Completed	
	Code Review	Rabanillo		12/7/24	12/10/24	3	Completed	
	Testing	Mina		12/7/24	12/10/24	3	Completed	
	Documentation	Soriano		12/7/24	12/10/24	3	Completed	

COMFROG (Gannt Chart)

Sprint 4							
Working on	Assign tasks	Delos Santos		12/11/24	12/12/24	1	Completed
Main Screen	Coding: Develop "Flash Card Creation" dashboard	De Lara		12/11/24	12/12/24	1	Completed
Flash Card Creation	Coding: Implement functionality to add folders for flashcards	Canta		12/11/24	12/12/24	1	Completed
	Coding: Create input fields for meanings and answers	De Lara		12/13/24	12/14/24	1	Completed
	Coding: Add the ability to save and confirm flashcards	Canta		12/13/24	12/14/24	1	Completed
	Coding: Enable organization and management of flashcard decks	Mina		12/13/24	12/14/24	1	Completed
	Code Review	Rabanillo		12/12/24	12/14/24	2	Completed
	Testing	Mina		12/12/24	12/14/24	2	Completed
	Testing	Pamesa		12/12/24	12/14/24	2	Completed
	Documentation	Soriano		12/11/24	12/14/24	3	Completed
Sprint 5							
Working on	Assign tasks	Delos Santos		12/16/24	12/18/24	2	Completed
Next Screen	Coding: Develop "Progress" dashboard for tracking learning milestones	Canta		12/16/24	12/20/24	4	Completed
Progress Bar	Coding: Implement functionality to view progress details	De Lara		12/16/24	12/20/24	4	Completed
	Code Review	Rabanillo		12/16/24	12/20/24	4	Completed
	Testing	Pamesa		12/16/24	12/20/24	4	Completed
	Debugging	Mina		12/16/24	12/20/24	4	Completed
	Documentation	Soriano		12/16/24	12/20/24	4	Completed
Sprint 6							
Regression Testing	Testing: Perform unit testing on each module	Pamesa		1/6/25	1/8/25	2	Completed
	Testing: Perform unit testing on each module	Rabanillo		1/6/25	1/8/25	2	Completed
	Identify Bugs/Debugging	Mina		1/6/25	1/8/25	2	Completed
	Bug Fixing: Identify and fix bugs	Canta		1/6/25	1/8/25	2	Completed
	Bug Fixing: Identify and fix bugs	De Lara		1/6/25	1/8/25	2	Completed
	Prepare system for final review and release candidate testing	All		1/6/25	1/8/25	2	Completed
Sprint 7							
Final System Review	Conduct a comprehensive system review	Hailie		1/9/25	1/11/25	2	Completed
Release Candidate	Final Testing: Execute final testing for the release candidate	Pamesa		1/9/25	1/11/25	2	Completed
Preparation	Final Testing: Execute final testing for the release candidate	Rabanillo		1/9/25	1/11/25	2	Completed
	Final Testing: Ensure all features meet acceptance criteria before relea	Mina		1/9/25	1/11/25	2	Completed
	Documentation: Prepare documentation for deployment	Soriano		1/9/25	1/11/25	2	Completed

COMFROG (Gannt Chart)

TASK	12/7	12/8	12/9	12/10	12/11	12/12	12/13	12/14	12/15	12/16	12/17	12/18	12/19	12/20

START OF PYCARDS DEV: MANAGE ACCOUNT — COMPLETED

Task	Timeline
Assigning of Tasks	▓
Develop "Create Account / Log-In" functionality	▓▓
Manage account details and "Password" requirment feature	▓▓
Reviewing Code	▓▓
Reviewing Code	▓▓
Testing	▓▓
Documentation	▓▓

WORKING ON MAIN SCREEN: FLASH CARD CREATION — COMPLETED

Task	Timeline
Assigning of Tasks	▓
Develop "Flash Card Creation" dashboard	▓
Implement functionality to add folders for flashcards	▓
Create input fields for meanings and answers	▓
Add the ability to save and confirm flashcards	▓
Enable organization and management of flashcard decks	▓
Reviewing Code	▓

COMFROG (Gannt Chart)

TASK	12/7	12/8	12/9	12/10	12/11	12/12	12/13	12/14	12/15	12/16	12/17	12/18	12/19	12/20
Testing						██	██	██						
Testing						██	██	██						
Documentation					██	██	██	██						

WORKING ON NEXT SCREEN: PROGRESS BAR — COMPLETED

	12/7	12/8	12/9	12/10	12/11	12/12	12/13	12/14	12/15	12/16	12/17	12/18	12/19	12/20
Assigning of Tasks											██	██		
Develop "Progress" dashboard for tracking learning milestones											██	██	██	██
Implement functionality to view progress details											██	██	██	██
Reviewing Code											██	██	██	██
Testing											██	██	██	██
Debugging											██	██	██	██
Documentation											██	██	██	██

COMFROG (Gannt Chart)

TASK	1/6	1/7	1/8	1/9	1/10	1/11	1/12	1/13	1/14	1/15	1/16	1/17	1/18	1/19
REGRESSION TESTING	COMPLETED													
Assigning of Tasks	■													
Perform unit testing on each module	■													
Perform unit testing on each module	■													
Identify Bugs/ Debugging	■													
Identify and fix bugs	■													
Identify and fix bugs	■													
Prepare system for final review and release candidate testing	■													
FINAL SYSTEM REVIEW: RELEASE CANDIDATE PREPERATION	COMPLETED													
Conduct a comprehensive system review				■										
Execute final testing for the release candidate				■										
Execute final testing for the release candidate				■										
Ensure all features meet acceptance criteria before release				■										
Prepare documentation for deployment				■										

TEST CASES
and
TEST RESULTS

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	Scenario TID	Scenario Description	Test Case ID	Pre Condition	Steps to Execute	Expected Result	Actual Result	Status
2	1	Sign up scenario with valid username and password.	1			Sign up should work with valid credentials.	Sign up is working with valid credentials.	Passed
3	2	Sign up scenario with valid username and a password that is 8 characters long, contains uppercase and lowercase letter, but no special character.	2			An error message like "Password must contain at least one special character." should appear.	The error message did appear.	Passed
4	3	Sign up scenario with valid username and a password that is 8 characters long, contains a special character, but all in uppercase letters.	3			An error message like "Password must contain at least one lowercase letter." should appear.	The error message did appear.	Passed

5	4	Sign up scenario with valid username and a password that is 8 characters long, contains a special character, but all in lowercase letters.	4			An error message like "Password must contain at least one upercase letter." should appear.	The error message did appear.	Passed
6	5	Sign up scenario with valid username and a password that is 5 characters long, contains uppercase, lowercase, and a special character.	5			An error message like "Password must be at least 8 characters long." should appear.	The error message did appear.	Passed
7	6	Sign up scenario with existed username and valid password.	6			An error message like "Username already exists." should appear.	The error message did appear.	Passed
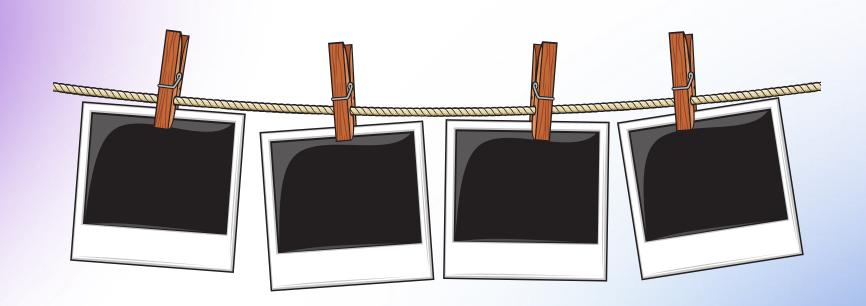
8	7	Sign up scenario with invalid username and password.	7		An error messages like "Username already exists." "Password must be at least 8 characters long." "Password must contain at least one uppercase letter." "Password must contain at least one lowercase letter." and "Password must contain at least one special character." should appear.	The error messages did appear.	Passed
9	8	Sign up scenario with username only.	8		User sees an error messages like "Password must be at least 8 characters long." "Password must contain at least one uppercase letter." "Password must contain at least one lowercase letter." "Password must contain at least one special character."	The error messages did appear.	Passed

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Scenario TID	Scenario Desciption	st Case Pre Condition	ps to Execu	Expected Result	Actual Result	Status
9	Verify the functionality of the main screen button	9		User will be navigated to the main screen.	User sucessfully navigated to main screen	passed
10	Verify the functionality of the create flashcard button	10		Opens a form where creation of flashcard commence	The user's screen flashed a form for flashcard creation	passed
11	Scenario where the user accept the input an save in the flashcard name	11		The flashcard name is saved and displayed without errors.	The user's input in the flashcard name saved and displayed sucessfully	passed
12	Scenario where the user adjust the time in the field and accepts valid input	12		The time limit is saved without errors.	The user's input sucessfully saved and displayed sucessfully	passed
13	Scenario user will input the term of its choice on the filed	13		Card data is saved and displayed correctly.	The user's data inputed on the field saved and displayed sucessfully	passed
14	Scenario where the user will input the correct data on the description field	14		Description/definition is saved without truncation or errors.	The user's data inputed on the description field saved and displayed sucessfully	passed
15	User will create more forms for creation of flashcard	15		New card fields are added, and data is saved successfully.	Flashed a new form where the user can input another flashcard again	passed
16	Verify the functionality of save button	16		The data is saved and flashed on the main screen sucessfully	The flashcard was saved and flash to the main screen sucessfuly	passed

#	Test Scenario	#	Expected Result	Actual Result	Status
				screen successfully	
			The user will be navigated to the quiz with flashcard, the description and field where he can input his answers with time limit set and lives	The user's screen will proceed to quiz screen with the flashcard data without the correct answer and also time limit set by the user and lives	
17	Scenario where the user will tap the created deck	17			passed
18	Scenario where the user will submit a correct asnwer on the field	18	Correct answer should be recorded and proceed to the next question without sacrificing lives	The correct answer is recorded and quantified without errors	passed
19	Scenario where the user will submit incorrect asnwer on the field	19	A message will appear that the user inputed wrong answer and the lives will be deducted	The message appear and the lives is deducted by 1	passed
20	Scenario where the user used up all of the remaining lives without correct answer	20	The quiz will be exterminate and save the score, and will be navigated back at the main screen	The screen navigated back at the main screen	passed
21	Scenario when the user completed the quiz	21	The score will be saved and the screen wil navigated back at the main screen	The score is saved and navigated back to main screen	passed
22	Verify functionality of History button	22	The user will navigated to history screen where the quiz history with scores are saved	Successfully navigated to the history screen with quiz history where scores are saved	passed
23	Verify functionality of Progress button	23	The user will be navitaged to progress screen with bar that shows the progress of the user	Successfully navigated to progress screen with progress bar	passed
24	Verify functionality of Log Out button	25	The will be navigated back at the log in screen	Successfully navigated back to the Log in screen where user will log in or create another account again	passed
25	Scenarion user get back to the log in screen	25	The screen of the user should be the same as the first log in screen	The pad of the design are disoriented unlike before	failed
26	Scenario the user will delete a certain card during the card creation	26	The card should successfully removed with no errors	The card successfully deleted but the number are not arranged and continues to count even if the card got removed	failed

SUMMARY AND CONCLUSION

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Pycards was developed to further improve and simplify learning for students and be more manageable for professors and lecturers alike. With Pycards, learning and teaching is more manageable and easy for both students and professors alike within Polytechnic University of the Philippines-Parañaque. With the help of our team, we are able to create, test, and finalize Pycards to its full funcuality.
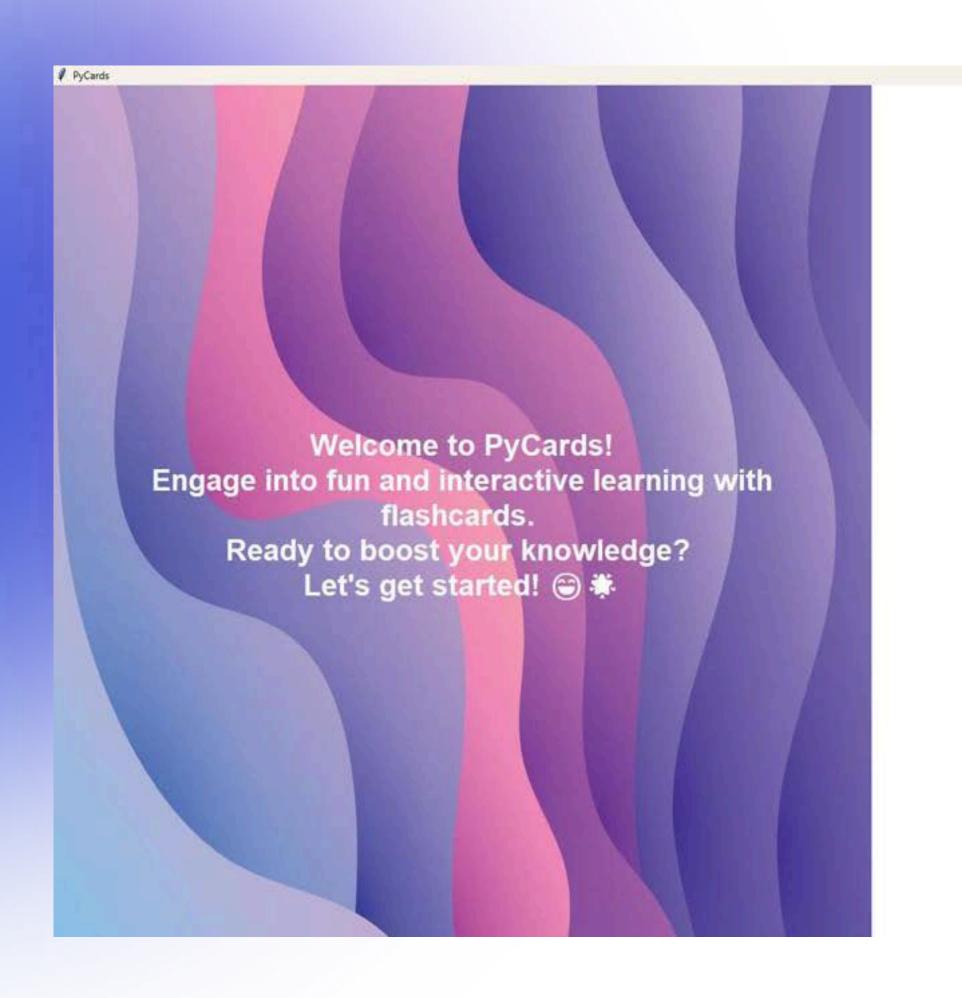
DOCUMENTATION

SCREENSHOTS

Welcome to PyCards!
Engage into fun and interactive learning with flashcards.
Ready to boost your knowledge?
Let's get started! 😄 ✳️

Welcome Back to PyCards!

username

password

Log In

---- Don't have an account? ----

Sign Up

PyCards

Main Screen

Progress

History

**Welcome back, comfrog Let's continue where we left off.
What would you like to dive into next?**

+

Create New

Logout

COMFROG

DEMO

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THANK YOU!