#### COIN CRATE: A NEW WAY TO SAVE SMART

# A Project Proposal In Partial Fulfillment of the Requirements For UCB-IT-ELDROID Sat 4:30 - 7:30 PM

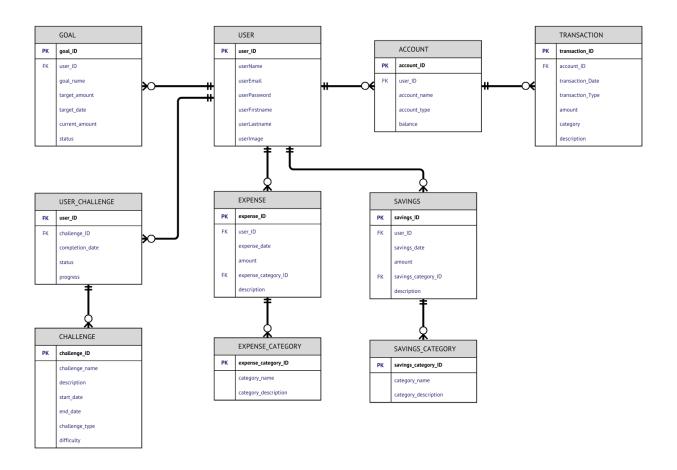
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#### **Entity Relationship Model**

This Entity Relationship Diagram (ERD) outlines the structure of a savings and expense tracking application centered around the Saver entity, which connects to key features such as Goal, Challenges, Savings, and Notifications. Savers can set financial goals, and track progress. A unified Transaction entity records both savings and expense entries, optionally linking them to specific goals. This centralized approach simplifies financial tracking, allowing users to view and manage their entire transaction history in one place. Overall, the ERD supports an organized and efficient system for managing personal finances.



## **Database Design**

This sector contains an overview of each table in the database, showing the Table Name, Field Name, Data Type, Field Size, Null, and Description.

Table 1. **USER ENTITY DATA DICTIONARY** 

Column Name	Data Type	Constraints	Description
user_ID	INT	PRIMARY KEY	Unique identifier for each user.
username	VARCHAR(255)	UNIQUE	User's login username.
password	VARCHAR(255)	NOT NULL	User's password.
email	VARCHAR(255)	UNIQUE	User's email address.
first_name	VARCHAR(255)		User's first name.
last_name	VARCHAR(255)		User's last name.
userImage	BLOB	NULL	User's profile image.

Table 2. **ACCOUNT ENTITY DATA DICTIONARY** 

Column Name	Data Type	Constraints	Description
account_ID	INT	PRIMARY KEY	Unique identifier for each account.
user_ID	INT	FOREIGN KEY	
account_name	VARCHAR(255)		Name of the account.
account_type	VARCHAR(50)		Type of account.
balance	DECIMAL (10, 2)		Current balance of the account

Table 3. **TRANSACTION ENTITY DATA DICTIONARY** 

Column Name	Data Type	Constraints	Description
transaction_ID	INT	PRIMARY KEY	Unique identifier for each transaction.
account_ID	INT	FOREIGN KEY	Account ID associated with the transaction (references ACCOUNT.account_id ).
transaction_date	DATE		Date of the transaction.
transaction_type	VARCHAR(50)		Type of transaction (e.g., "Deposit," "Withdrawal").
amount	DECIMAL(10, 2)		Amount of the transaction.
category	VARCHAR(255)		Category of the transaction (e.g., "Groceries," "Salary").
description	TEXT		Description of the transaction.

Table 4. **GOAL ENTITY DATA DICTIONARY** 

Column Name	Data Type	Constraints	Description
goal_ID	INT	PRIMARY KEY	Unique identifier for each goal.
user_ID	INT	FOREIGN KEY	User ID associated with the goal (references USER.user_id).
goal_name	VARCHAR(255)		Name of the goal (e.g., "Vacation Fund").
target_amount	DECIMAL(10, 2)		Target amount for the goal.

targate_date	DATE	Target completion date for the goal.
current_amount	DECIMAL(10, 2)	Current amount saved towards the goal.
status	VARCHAR(50)	Status of the goal (e.g., "Active," "Completed").

Table 5.

CHALLENGE ENTITY DATA DICTIONARY

Column Name	Data Type	Constraint	Description
challenge_ID	INT	PRIMARY KEY	Unique identifier for each challenge.
challenge_name	VARCHAR(255)		Name of the challenge (e.g., "No Spend Week").
description	TEXT		Description of the challenge.
start_date	DATE		Start date of the challenge.
end_date	DATE		End date of the challenge.
challenge _type	VARCHAR(50)		Type of challenge (e.g., "Savings," "Expense").
difficulty	VARCHAR(50)		Difficulty level of the challenge (e.g., "Easy," "Medium," "Hard").

Table 6. USER CHALLENGE ENTITY DATA DICTIONARY

Column Name	Data Type	Constraints	Description
user_ID	INT	FOREIGN KEY	User ID participating in the challenge (references USER.user_id).
challenge_ID	INT	FOREIGN KEY	Challenge ID the user is participating in (references CHALLENGE.challeng e_id).
completion_date	DATE		Date the user completed the challenge.
status	VARCHAR(50)		Status of the user's participation (e.g., "Ongoing," "Completed").
progress	DECIMAL(5, 2)		User's progress in the challenge (percentage).

Table 7. **EXPENSE ENTITY DATA DICTIONARY** 

Column Name	Data Type	Constraints	Description
expense_ID	INT	PRIMARY KEY	Unique identifier for each expense entry.
user_ID	INT	FOREIGN KEY	User ID who recorded the expense (references USER.user_id).
expense_date	DATE		Date of the expense.
amount	DECIMAL(10, 2)		Amount of the expense.
expense_category_id	INT	FOREIGN KEY	Expense category ID  (references  EXPENSE_CATEGOR  Y.expense_category_id)

description	TEXT	Description of the
		expense.

Table 8. **SAVINGS ENTITY DATA DICTIONARY** 

Column Name	Data Type	Constraints	Description
savings_ID	INT	PRIMARY KEY	Unique identifier for each savings entry.
user_ID	INT	FOREIGN KEY	User ID who recorded the savings (references USER.user_id).
savings_date	DATE		Date of the savings.
amount	DECIMAL(10, 2)		Amount of the savings.
savings_category_id	INT	FOREIGN KEY	Savings category ID (references SAVINGS_CATEGOR Y.savings_category_id).
description	TEXT		Description of the savings.

Table 9. **EXPENSE CATEGORY ENTITY DATA DICTIONARY** 

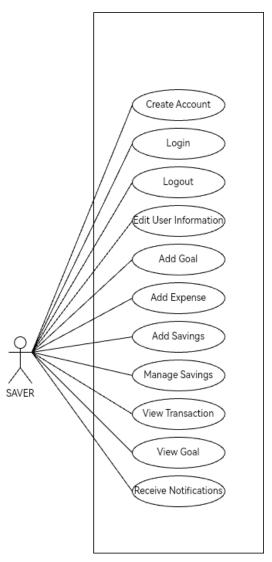
Column Name	Data Type	Constraints	Description
expense_category_id	INT	PRIMARY KEY	Unique identifier for each expense category.
category_name	VARCHAR(255)		Name of the expense category (e.g., "Groceries," "Utilities").
category_description	TEXT		Description of the expense category.

Table 10. **SAVINGS CATEGORY ENTITY DATA DICTIONARY** 

Column Name	Data Type	Constraints	Description
savings_category_id	INT	PRIMARY KEY	Unique identifier for each savings category.
category_name	VARCHAR(255)		Name of the savings category (e.g., "Salary," "Savings Deposit").
category_description	TEXT		Description of the savings category.

#### **Use Case Diagram**

This use case diagram illustrates the primary interactions between the user and the features of a personal savings and expense management application. The main actor, **Saver**, can perform various functions such as creating an account, logging in, adding goals, managing expenses and savings, viewing transactions and goals, and receiving notifications. Additional functionalities include editing user information, and participating in challenges. This diagram highlights the core system features designed to help users effectively track and manage their personal finances.



#### **User Interface Design**

This section presents the visual representation of the proposed system's user interface. The UI design illustrates how users will interact with the system's core features, including product management and profile settings. It provides a clear and organized view of the interface layout, ensuring ease of use and intuitive navigation. The design prioritizes user engagement and accessibility, making the system usable for individuals with varying needs. By integrating well-structured UI principles, the design aims to deliver a smooth, efficient, and user-centered experience that aligns with the expectations of our target users.



Figure 1: Login Page

Name	Description	Parameter
Login Title	Main title for the login screen	Type: TextView, Text: String
		Max Length: 30 characters
Login Subtitle	A brief subtitle under the title	Type: TextView, Text: String
	to provide context for login	Max Length: 150 characters
App Logo	A CoinCrate app Logo	Type: ImageView
App Subtitle	Description text about the app	Type: TextView, Text: String
		Max Length: 30 characters
Email Text	Email Label Input Text	Type: TextView, Text: String
	Display	Max Length: 30 characters
Email Input	Input field for entering the	Type: EditText, Input Type:
	user's email address.	textEmailAddress Max
		Length: 255 characters
		Validation: Valid email
		format (must contain '@' and
		domain)
Password Text	Label for the password input	Type: TextView, Text: String
	field.	Max Length: 30 characters
Password Input	Password Input Edit Text	Type: EditText, Input Type:
		textPassword Min Length: 8
		characters, Max Length: 60
		characters
Forgot Password Text	Clickable Forgot Password	
	Text Display	
Login Button	A button that initiates the	Type: Button, Text: String
	login process after field	
	validation.	
Create free account	Navigates users to the signup	Type: TextView, Text: String
Navigation Button	screen if they don't have an	
	account.	

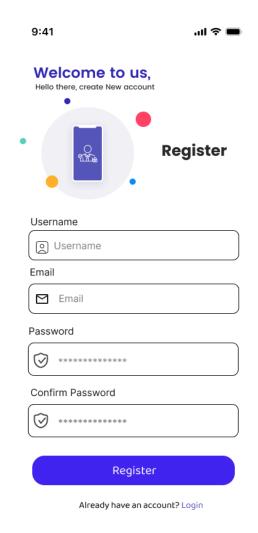


Figure 2: Register Page

Name	Description	Parameter
Register Title	Main title for the register screen	Type: TextView, Text: String Max Length: 30 characters
Register Subtitle	A brief subtitle under the title to provide context for register	Type: TextView, Text: String Max Length: 150 characters
App Logo	A CoinCrate app Logo	Type: ImageView
App Subtitle	Description text about the app	Type: TextView, Text: String Max Length: 30 characters

Email Text	Email Label Input Text Display	Type: TextView, Text: String Max Length: 30 characters
Email Input	Input field for entering the user's email address.	Type: EditText, Input Type: textEmailAddress Max Length: 255 characters Validation: Valid email format (must contain '@' and domain)
Password Text	Label for the password input field.	Type: TextView, Text: String Max Length: 30 characters
Password Input	Password Input Edit Text	Type: EditText, Input Type: textPassword Min Length: 8 characters, Max Length: 60 characters
Confirm Password Text	Password Label Input Text Display	Type: TextView, Text: String Max Length: 30 characters
Confirm Password Input	Password Input Edit Text	Type: EditText, Input Type: textPassword Min Length: 8 characters, Max Length: 60 characters
Register Button	Registers the user with Form information	Type: Button, Text: String
Login Navigation Button	A button or link that allows users to navigate to the login screen if they already have an account.	Type: TextView, Text: String



## **Forgot Password**

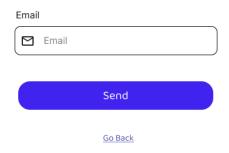
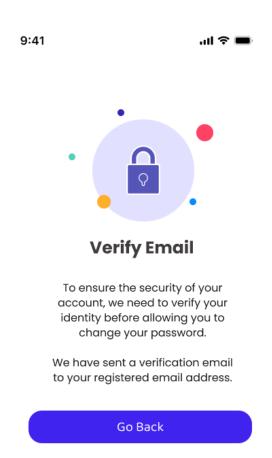


Figure 3: Forgot Password

Name	Description	Parameter
Image	Image	Type: ImageView
Forgot Password Text	Forgot Password Text	Type: TextView, Text: String
	Description Display	Max Length: 30 characters
Email Text	Email Label Input Text	Type: TextView, Text: String
	DIsplay	Max Length: 30 characters
Email Input	Email Input Edit Text	Type: EditText, Input Type:
		textEmailAddress Max
		Length: 255 characters
		Validation: Valid email
		format (must contain '@' and
		domain)
Send Button	Sends mail to the email for	Type: Button, Text: String
	forgot password	

Go Back Text	Clickable Go Back Text	Type: TextView, Text: String
	Display	



**Figure 4: Verification** 

Name	Description	Parameter
Image	Image	Type: ImageView
Verify Email Text	Verify Email Label Text	Type: TextView, Text: String
	Display	Max Length: 30 characters
Verify Email Text Description	Verify Email Input Edit Text	Type: TextView, Text: String
		Max Length: 60 characters
Go Back Button	Goes Back to Login Screen	Type: Button, Text: String

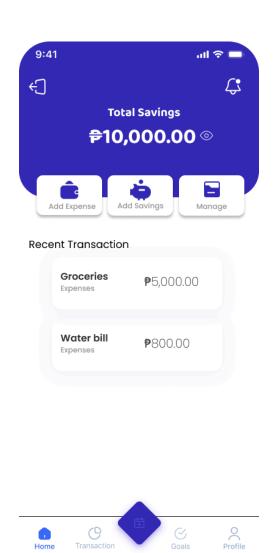


Figure 5: Dashboard

Transaction

Name	Description	Parameter
Logout Button	Prompts User with Logout	Type: Button
	Message and Closes the	
	application	
Notification Button	Notify when user has added	Type: Button
	expense and saving	
Total Savings Text	Expense Summary Label	Type: TextView, Text: String
	Text Display	Max Length: 30 characters
Total Savings Value	Total savings display	Type: TextView, Text: String
		Max Length: 30 characters

Display Value Image	Shows/Hides the Current	Type: Button
	Total savings	
Savings Button	Redirects to the Add Savings	Type: Button, Text: String
	when clicked	
Expense Button	Redirects to the Add Expense	Type: Button, Text: String
	when clicked	
Manage Button	Redirects to the Manage	Type: Button, Text: String
	savings when clicked	
Report Transaction Text	Report Transaction Label	Type: TextView, Text: String
	Text Display	Max Length: 30 characters
Home Button	Navigates the user to the	Type:BottomNavigationView
	home screen.	item, Icon and Label: home
		icon and label
Transaction Button	Redirects to all Transactions	Type:BottomNavigationView
		item, Icon and Label:
		Transaction icon and label
Challenges Button	Redirects to challenges	Type:BottomNavigationView
		item, Icon and Label:
		challenges icon and label
Goal Button	Redirects to goal	Type:BottomNavigationView
		item, Icon and Label: home
		icon and label
Profile	Redirects to Profile Screen	Type:BottomNavigationView
		item, Icon and Label: profile
		icon and label

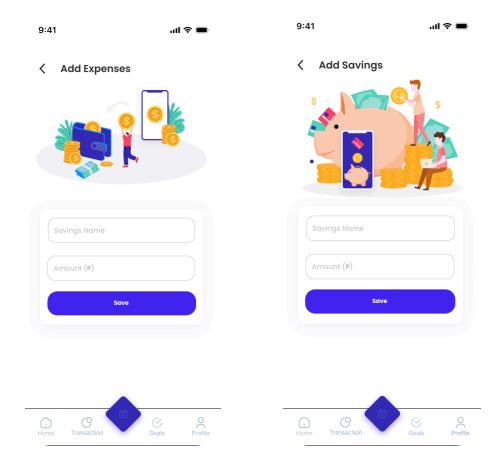
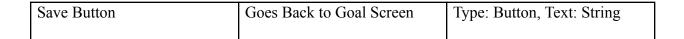


Figure 6: Adding Expense and Savings Page

Name	Description	Parameter
Back Button	A button that allows users to	Type: ImageButton, Icon src:
	navigate back to the previous	Drawable, Attributes:
	screen or activity.	onClickListener
Add Expenses Text	Title of the Screen Displayed	Type: TextView, Text: String
		Max Length: 30 characters
Add Savings Text	Title of the Screen Displayed	Type: TextView, Text: String
		Max Length: 30 characters
Image	Display the image	Type: ImageView
Image	Display the image	Type: ImageView
Add Expenses Text	Title of the Screen Displayed	Type: TextView, Text: String
		Max Length: 30 characters
Add Savingsl Text	Title of the Screen Displayed	Type: TextView, Text: String
		Max Length: 30 characters



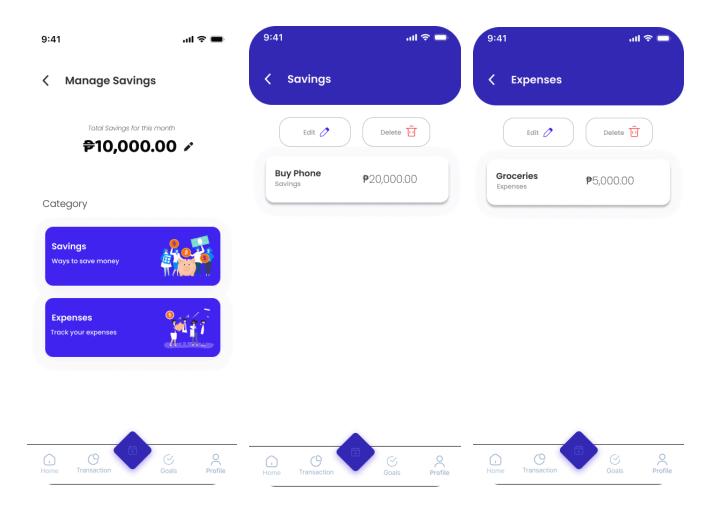
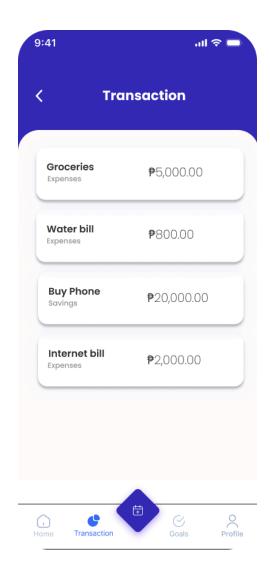


Figure 7: Manage Savings Page

Name	Description	Parameter
Back Button	A button that allows users to	Type: ImageButton, Icon src:
	navigate back to the previous	Drawable, Attributes:
	screen or activity.	onClickListener
Add Manage Savings Text	Title of the Screen Displayed	Type: TextView, Text: String
		Max Length: 30 characters
Total Savings Value	Total Value Savings Display	Type: TextView, Text: String
		Max Length: 30 characters

Edit Value Button	A button that allows user to	Type: ImageButton, Icon src:
	edit the value they save on the	Drawable, Attributes:
	month.	onClickListener
Category Text	Category Text Label Display	Type: TextView, Text: String
		Max Length: 30 characters
Savings Category Button	Redirects to Savings screen	Type: ImageButton, Icon src:
		Drawable, Attributes:
		onClickListener
Expense Category Button	Redirects to Expenses screen	Type: ImageButton, Icon src:
		Drawable, Attributes:
		onClickListener
Edit Expense Button	To edit the value of the	Type: ImageButton, Icon src:
	expenses created	Drawable, Attributes:
		onClickListener
Delete Expense Button	To remove the expense	Type: ImageButton, Icon src:
	created by user	Drawable, Attributes:
		onClickListener
Edit Savings Button	To edit the value of the	Type: ImageButton, Icon src:
	Savings created	Drawable, Attributes:
		onClickListener
Delete Savings Button	To remove the savings	Type: ImageButton, Icon src:
	created by user	Drawable, Attributes:
		onClickListener



**Figure 8: Transaction Page** 

Name	Description	Parameter
Back Button	A button that allows users to	Type: ImageButton, Icon src:
	navigate back to the previous	Drawable, Attributes:
	screen or activity.	onClickListener
Transaction Text	Title of the Screen Displayed	Type: TextView, Text: String
		Max Length: 30 characters
Transaction List	Displays a list of transaction	Type: RecyclerView
	items in a scrollable view.	
Transaction Item	Displays individual	Type: CardView, Attributes:
	information, such as savings	ImageView, TextView
	name and amount	

Home Button	Navigates the user to the	Type:BottomNavigationView
	home screen.	item, Icon and Label: home
		icon and label
Transaction Button	Redirects to all Transactions	Type:BottomNavigationView
		item, Icon and Label:
		Transaction icon and label
Challenges Button	Redirects to challenges	Type:BottomNavigationView
		item, Icon and Label:
		challenges icon and label
Goal Button	Redirects to goal	Type:BottomNavigationView
		item, Icon and Label: home
		icon and label
Profile	Redirects to Profile Screen	Type:BottomNavigationView
		item, Icon and Label: profile
		icon and label



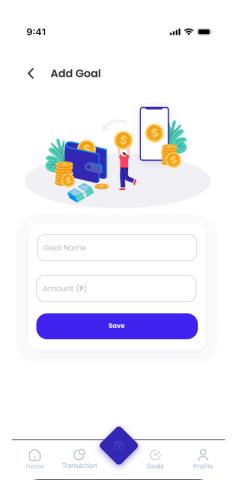


Figure 9: Goal Page

Name	Description	Parameter
Back Button	A button that allows users to	Type: ImageButton, Icon src:
	navigate back to the previous	Drawable, Attributes:
	screen or activity.	onClickListener
Goal Text	Title of the Screen Displayed	Type: TextView, Text: String
		Max Length: 30 characters
Add Button	A button that allows user to	Type: ImageButton, Icon src:
	add goal.	Drawable, Attributes:
		onClickListener
Goal List	Displays a list of goal that the	Type: RecyclerView
	user added.	
Back Button	Navigate back to the previous	Type: ImageButton
	screen or activity.	
Add Goal Text	Title of the Screen Displayed	Type: TextView, Text: String
		Max Length: 30 characters
Image	Display the image	Type: ImageView
Add Goal Name Text	Users can add goal name	Type: TextView, Text: String
		Max Length: 30 characters
Amount Text	Users can add amount on the	Type: TextView, Text: String
	goal part.	Max Length: 30 characters
Save Button	Goes Back to Goal Screen	Type: Button, Text: String

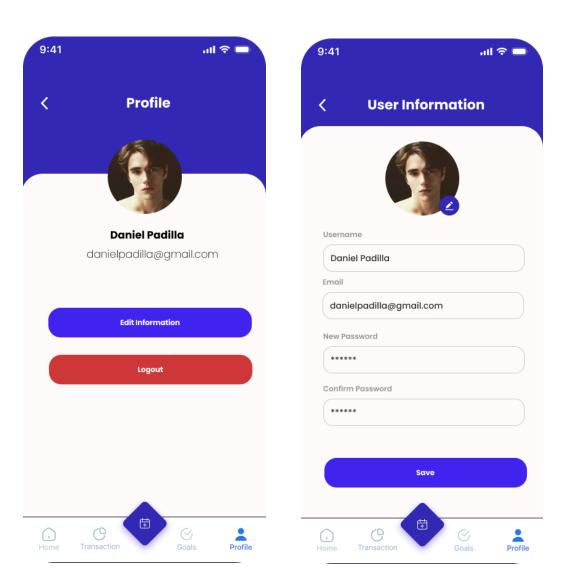


Figure 10: Profile Page

Name	Description	Parameter
Back Button	A button that allows users to	Type: ImageButton, Icon src:
	navigate back to the previous	Drawable, Attributes:
	screen or activity.	onClickListener
Profile Page Title	Displays the title of the	Type: TextView, Text: String,
	profile page	Length: max 30 characters
Profile Photo	Displays the seller's profile	Type: ImageView, Acceptable
	picture	Formats: jpeg, png

User Information Text	User Information Label Text	Type: TextView, Text: String,
	Display	Length: max 30 characters
Email Text	Email Label Text Display	Type: TextView, Text: String,
		Length: max 30 characters
Edit Information Button	Button to edit account details	Type: Button, Text: String.
		Icon and forward icon: src
		from drawable
Logout Button	Button to log out the user	Type: Button, Text: String.
		Icon and forward icon: src
		from drawable
Back Button	A button that allows users to	Type: ImageButton, Icon src:
	navigate back to the previous	Drawable, Attributes:
	screen or activity.	onClickListener
User Information Title	Displays the title of the	Type: TextView, Text: String,
	profile page	Length: max 30 characters
Edit Profile Image	User Profile Image Display	Type: ImageView, Acceptable
_		Formats: jpeg, png
Username Text	Username Label Text Display	Type: EditText, InputType:
		text, Length: max 40
		characters
Username Value	Username Input Edit Text	Type: EditText, InputType:
		text, Length: max 40
		characters
Email Text	Email Label Text Display	Type: EditText, InputType:
		text, Length: max 40
		characters
Email Value	Email Input Edit Text	Type: EditText, InputType:
		text, Length: max 40
		characters
New Password Title	Title for the new password	Type: TextView, Text: String,
	input field	Length: max 30 characters
New Password Field	Input field for the new	Type: EditText, Input Type:
	password	textPassword Min Length: 8
		characters, Max Length: 60
		characters Validation: Must
		meet password strength
		requirements (uppercase,
		lowercase, number, special
		character)

Confirm Password Title	Title for the confirm	Type: TextView, Text: String,
	password input field	Length: max 30 characters
Confirm Password Field	Input field for confirming the	Type: EditText, Input Type:
	new password	textPassword Min Length: 8
		characters, Max Length: 60
		characters Validation: Must
		match new password
Save Button	Button to confirm and update	Type: Button, Text: String
	the password	

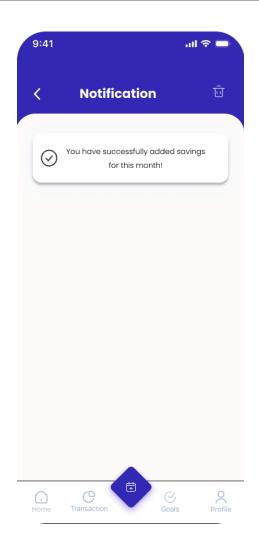


Figure 11: Notification Page

Name	Description	Parameter
Back Button	A button that allows users to	Type: ImageButton, Icon src:
	navigate back to the previous	Drawable, Attributes:
	screen or activity.	onClickListener
Notification Text	Title of the Screen Displayed	Type: TextView, Text: String
		Max Length: 30 characters
Delete Button	A button that allows user to	Type: ImageButton, Icon src:
	delete unnecessary messages.	Drawable, Attributes:
		onClickListener
Notification List	Display A list of notification	Type: RecyclerView

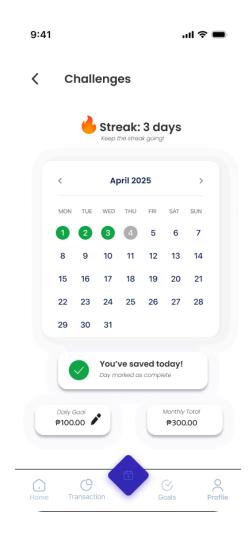


Figure 12: Challenge Page

**Test Plan** 

Task #	Task Title	Action	Expected Result	Current Outcome	Status
1	Validate Login screen Visibility	Launch the app	User is navigated to	navigated to Login screen	PASSED
		Navigate to Login screen	Login screen and visible	and visible	
2	No username and password Login input	Click the Login button without input	An error message will display	Error message displayed "Username is required" and "Password is required"	PASSED
3	Register Email Invalid email	Navigate to Register Screen	An error message will display		
		Input invalid@		Error message	
		Input the rest of fields		displayed "Invalid email address"	PASSED
		Click register button			
4	Existing Account Text	Click on "Already Have an Account" link.	Redirects back to the Login screen.	User redirects to Login screen	PASSED
5	Forgot Email Send Button	Click the Send button after entering an email.	Sends reset email and shows email	User redirects to Login screen	PASSED
6	Click Go Back Text in Forgot	Click on "Go Back" link.	Returns to the	User navigated back to the Login	PASSED

	Password Screen		Login screen.	screen.	
7	Click Go back button in Verify Email Screen	Click the Go Back button.	Returns to the Login screen.	User navigated back to the Login screen.	PASSED
8	Login state function frontend	Exit the app directly	Returns to Home	User navigated directly to Home	PASSED
		Relaunch the app			
9	Navigation of Savings Button	Click the Savings button	Redirects to the Add Savings screen.	Redirects user to the Add Savings screen.	PASSED
10	Navigation of Expenses Button	Click the Expenses button	Redirects to the Add Expenses screen.	Redirects user to the Add Expenses screen.	PASSED
11	Navigation of Manage Savings Button	Click the Manage button.	Redirects to the Manage screen.	Redirects user to the Manage screen.	PASSED
12	Profile Button	Click the Profile button.	Redirects to the Profile screen.	Redirects user to the Profile screen.	PASSED
13	Logout Button	Click the Logout button.	Prompts user with a logout confirmation message.	Prompt the user a confirmation dialog message	PASSED
14	Add Savings	Click on add savings name	User will add savings on their preferences	Save and will direct to home screen	PASSED
15	Add Expenses	Click on add expenses name	User will add expenses on their	Save and will direct to home	PASSED

			preferences.		
16	Manage Button	Click the Manage button.	Opens to edit an existing savings and expenses.	Opens to edit an existing savings and expenses	PASSED
17	Edit Expense Button	Click the Edit Expense button on a card.	Opens overlay to edit expense details.	Opens overlay to edit expense details.	PASSED
18	Delete Expense Button	Click the Delete button on a card.	Prompts for confirmation before deletion.	Prompts for confirmation before deletion.	PASSED
19	Category Spinner	Click the Category Spinner	Shows the category which is the savings and expenses.	Opens overlay to edit and delete items	PASSED
20	Username Value	Edit Username with characters	Display an error message	Displays an error message stating "Username must be at least 3 characters"	PASSED
21	Email Value	Edit email with invalid input	Display an error message	Error message displayed "Invalid email address"	PASSED
22	New Password Value	Clicks Save Button on Profile Screen	Should validation error the input value if it's the same with the current user password		PASSED

23	Confirm New Password Value	Clicks Submit Button on Profile Screen	Should validation error that the password is the same with the new password value		PASSED
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## BACKEND TEST CASES

# **Authenticator Management**

Task #	Task Title	Action	Expected Result	Current Outcome	Status	
1	Registration Input valid username toast stating "User registered"	Input valid email		Display toast	PASSED	
		Input valid username	"User registered successfully " and	stating "User registered		
		minimum of 6		successfully" and	successfully and navigated to verify Email	a successfully and navigated to verify Email
		Email				
2	User Login Failed	Login with non-existent username	An error message will display	Error message displayed	PASSED	
		Click Login button		"Username not found"		
3	Forgot Password Send Email Failed	Input non-existent email	An error message will display	Error message displayed "Email not found"		
		Click Send Button			PASSED	

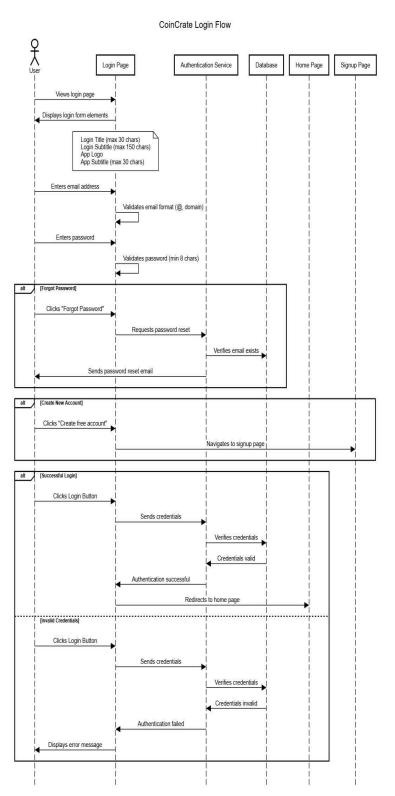
4	Existing Account Text	Click on "Already Have an Account" link.	Redirects back to the Login screen.	User redirects to Login screen	PASSED
5	Forgot Email Send Button	Click the Send button after entering an email.	Sends reset email and shows email sent toast	User redirects to Login screen together with a toast message	PASSED
Add S	avings Manageme	ent		ı	
1	Add Savings	Add a savings name with amount	A message will display	A message displayed "You	PASSED
		Click save button		have successfully added savings."	
2	Edit a savings entry	Click the item list	A success message will display	Success message displayed	PASSED
		Input a new valid value			
		Click save			
3	Delete a	Click the item list		Success message	PENDING
	category entry	Click delete	message will display and dis	displayed "Savings deleted successfully!"	
Add E	xpense Managem	ent	<u> </u>		
1	Add Expense with valid data including expense name and amount  Navigate to Add expense screen message will display  Add valid data	message	displayed handle	PASSED	
			added expense is displayed in a list		
		Click submit button	1		
	including expense name	Add valid data	message will display	by toast and the added expense	ne e is

2	Edit a expense entry	Click the item list	A success message will display	Success message displayed "Savings added successfully!"	PASSED				
3	Delete an Expense	Navigate to expense screen	It will remove the		PASSED				
		Click a specific expense card	specific expense for the user and	and s					
		Click the trash icon and submit	a success message will display						
Manage Management									
1	Edit Total Savings	Navigate to manage screen	A success message will display and the savings will be updated in the views	A success message will display and the savings will be updated in the views	PASSED				
		Click the edit button							
2	View Savings Category	Navigate to savings screen	It will render the savings added by the user	Direct to the savings added by the user, and it has an action that could be edited or deleted.	PASSED				
3	View Expenses Category	Navigate to expenses screen	It will render the expenses added by the user	Direct to the expenses added by the user	PASSED				
		Click the edit button							
		Click the delete button							

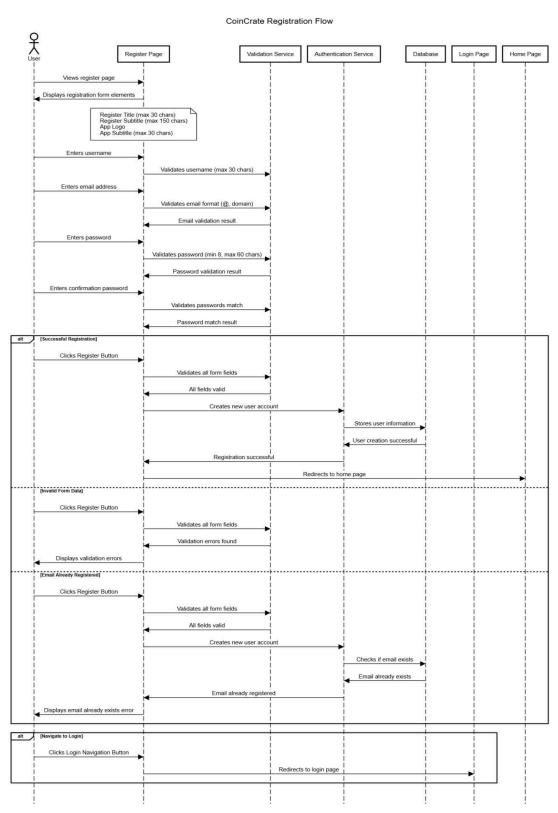
Profile Management								
1	User updates the username	Navigate to Profile screen	Username will be updated and a success message will display	Username updates successfully and a success message handled by a toast stating "Successfully updated user details"	PASSED			
		Inputs the new username at the username input field						
		Click the submit button						
2	User updates the email Navigate to Profile screen	Email will be updated and a	Email updates successfully and a success message	PENDING				
		Inputs the new username at the username input field	success message will display, In the DB	handled by a toast stating "Successfully updated user details" and sent a verification email				
		Click the submit button	on the other hand the verification will be reverted to false					
3	User updates the password	Navigate to Profile Screen	Password will be updated and a success message will display	Password updates successfully and a success message handled by a toast stating "Successfully updated user details"	PASSED			
		Input the old password and the new password in the field						
		Click the submit button						

## **SEQUENCE DIAGRAM**

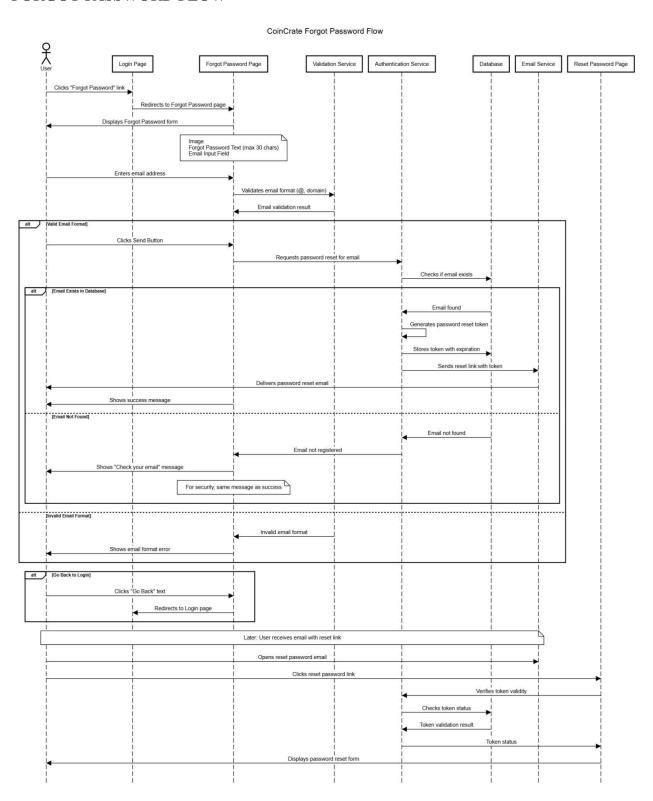
#### **LOGIN FLOW**



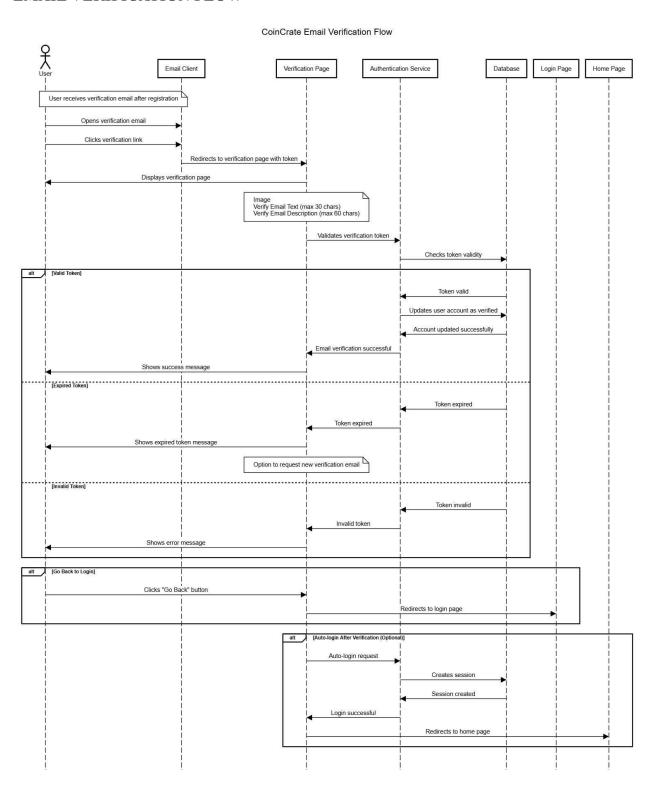
#### **REGISTRATION FLOW**



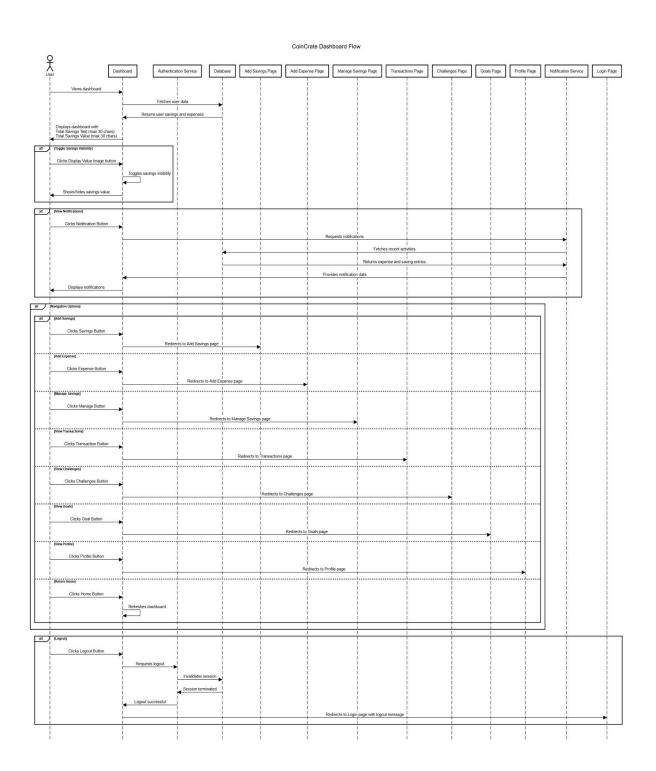
#### FORGOT PASSWORD FLOW



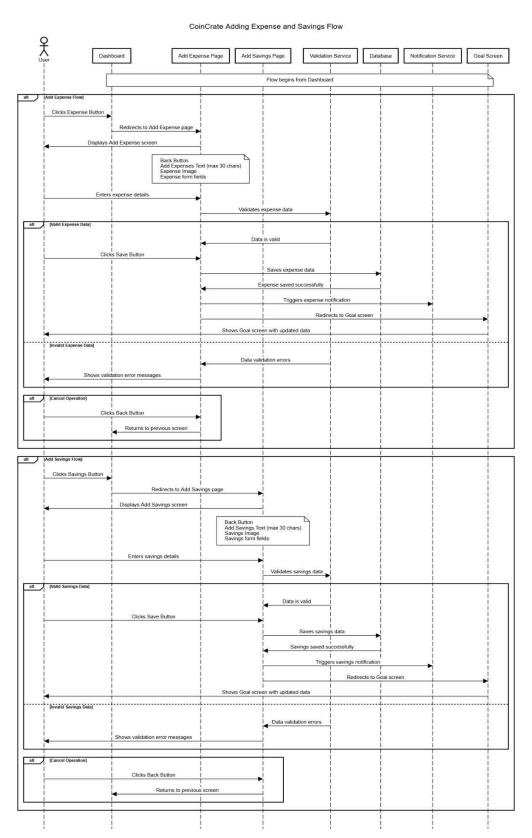
#### **EMAIL VERIFICATION FLOW**



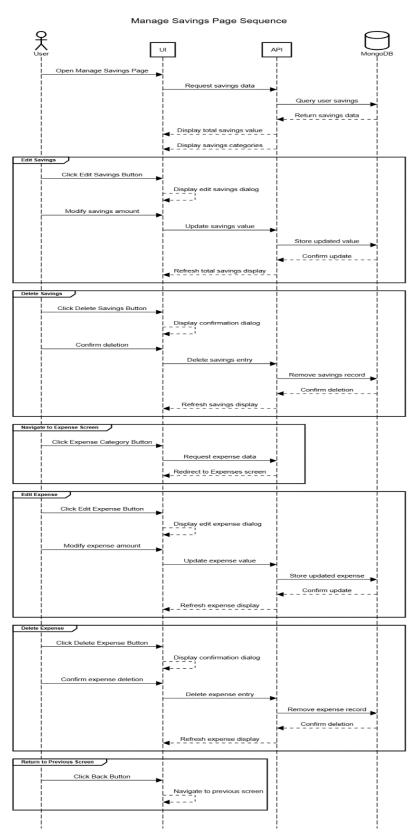
## DASHBOARD FLOW



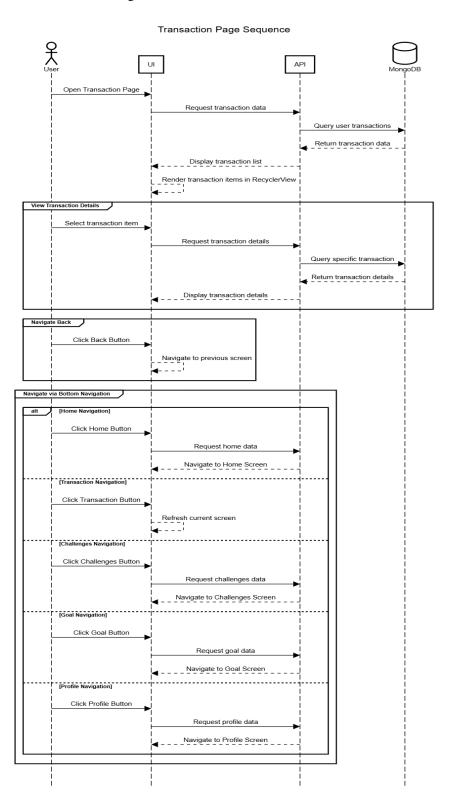
#### ADDING EXPENSE AND SAVINGS FLOW



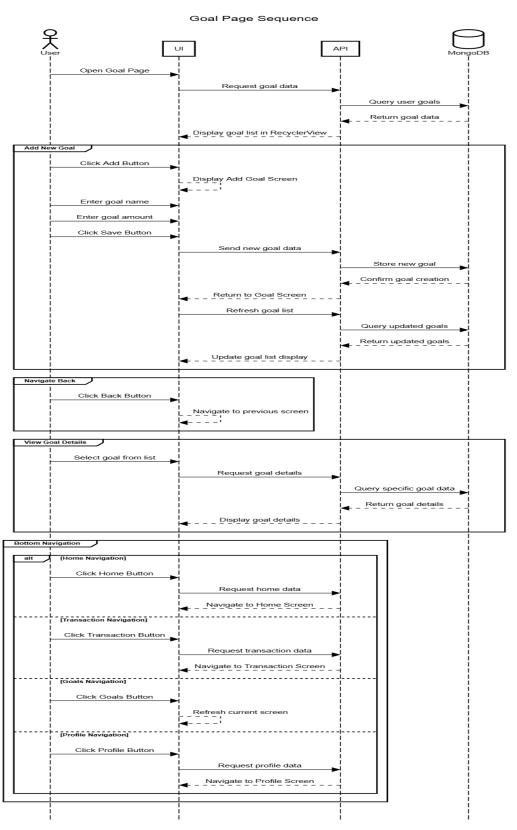
## MANAGE SAVINGS PAGE SEQUENCE



#### TRANSACTION PAGE SEQUENCE



## **GOAL PAGE SEQUENCE**

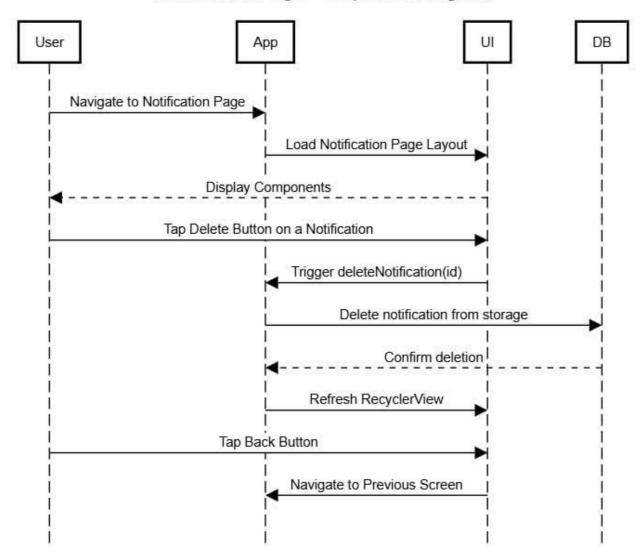


#### PROFILE PAGE SEQUENCE

Profile Page - Full Flow with Password Validation User UI Validator DB Launch Profile Page Render Profile Page Components Display Profile Page Title Display Profile Photo Display User Information Text Display Email Text Tap Edit Information Button Show Editable Fields Enter new Username / Email Enter New Password Enter Confirm Password Check if Password = Confirm Password Match? Yes/No [Passwords Match] alt / Validate Password Strength Pass/Fail [Valid Password] Tap Save Button Submit Changes Update User Info Success [Passwords Do Not Match] Show Error: "Passwords Do Not Match" Tap Logout Button Trigger Logout Flow Redirect to Login Page Coin Create

## NOTIFICATION PAGE SEQUENCE

## Notification Page - Sequence Diagram



#### **CHALLENGE PAGE SEQUENCE**

## Challenge Page - Sequence Diagram (With DB)

