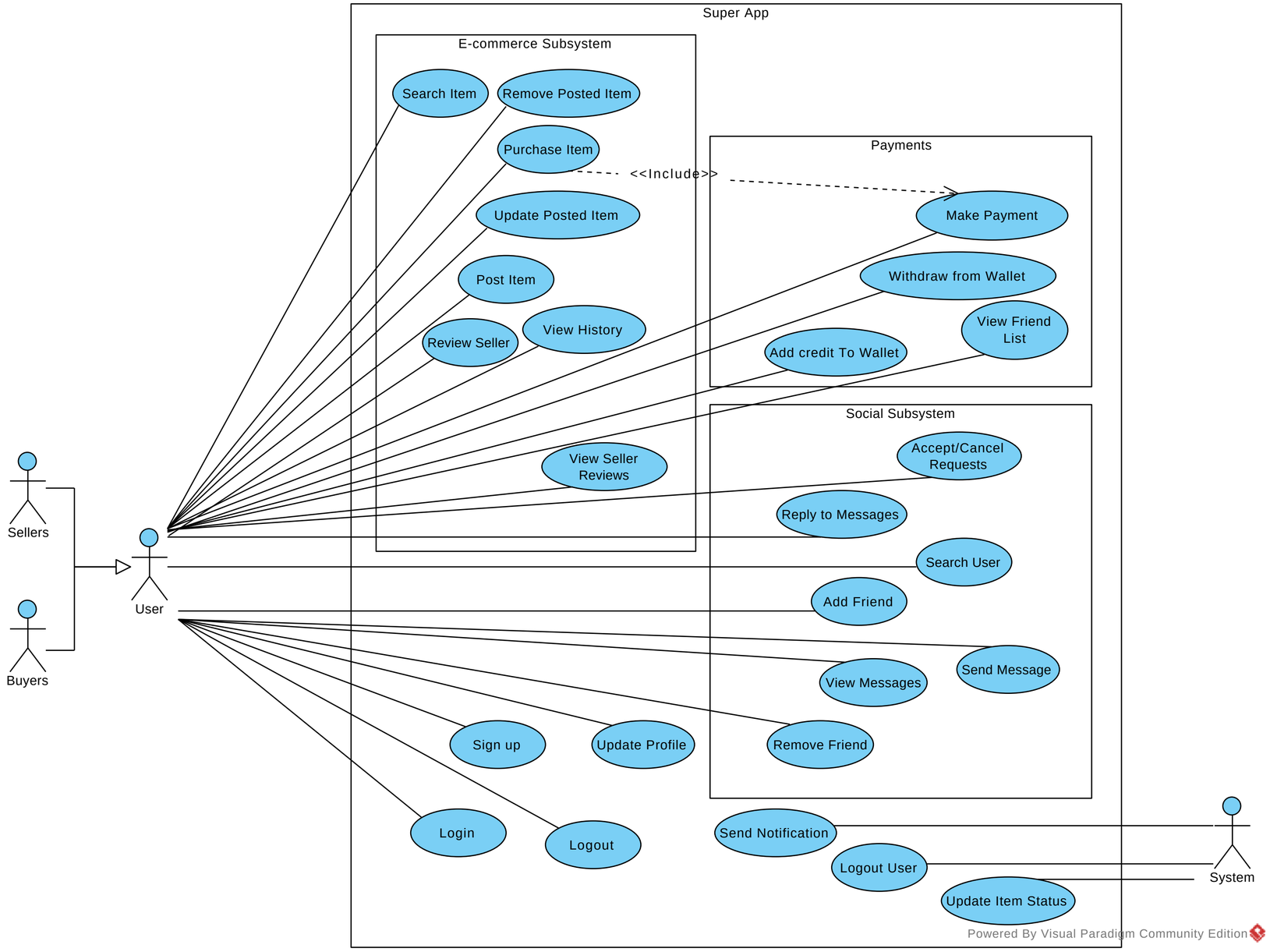
Super App
E-commerce Subsystem
Search Item
Remove Posted Item
Purchase Item
<<Include>>
Update Posted Item
Post Item
Review Seller
View History
Payments
Make Payment
Withdraw from Wallet
View Friend List
Add credit To Wallet
Social Subsystem
View Seller Reviews
Accept/Cancel Requests
Reply to Messages
Search User
Add Friend
Send Message
View Messages
Remove Friend
Sellers
Buyers
User
Sign up
Update Profile
Login
Logout
Send Notification
Logout User
Update Item Status
System
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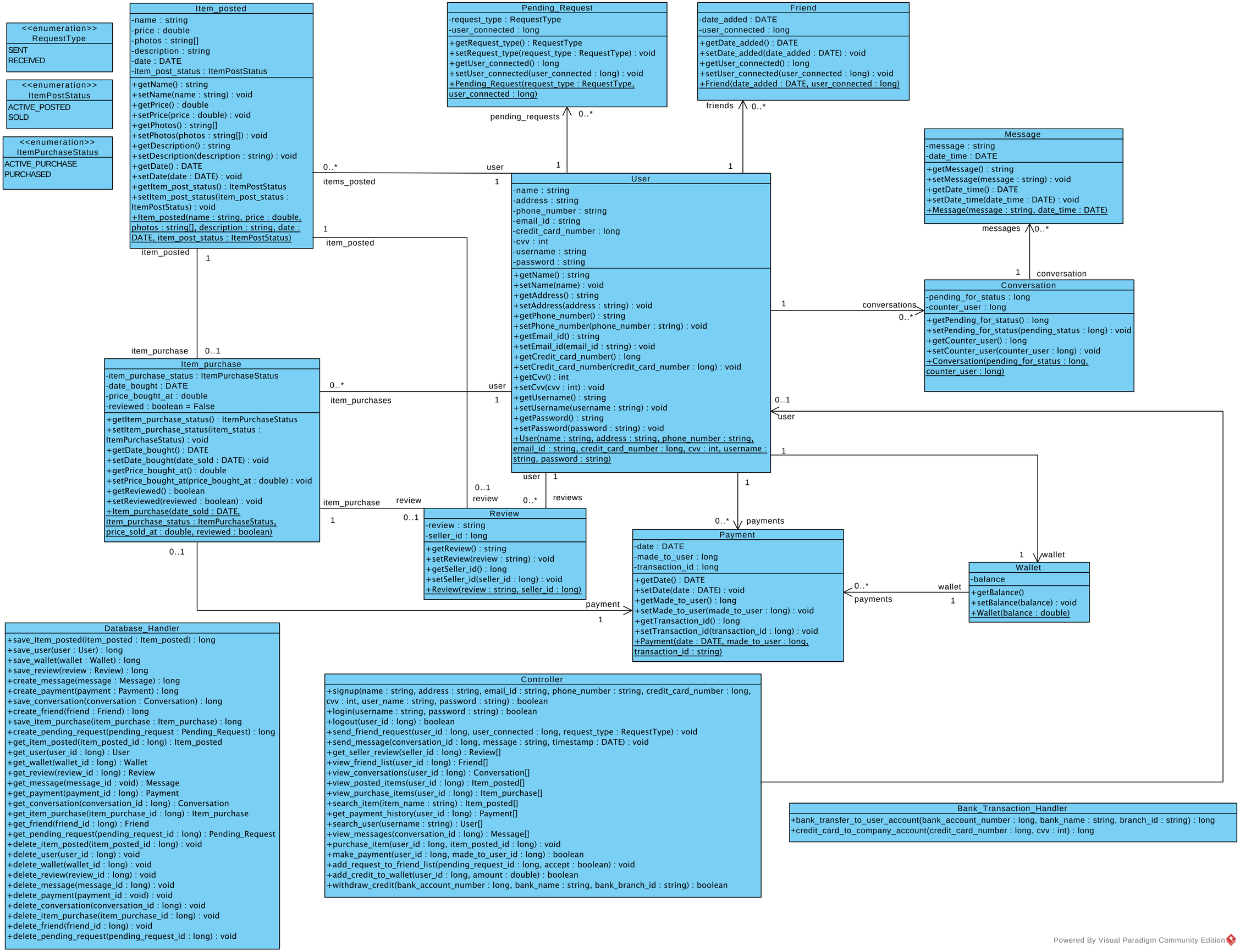
<<enumeration>>
RequestType
SENT
RECEIVED
<<enumeration>>
ItemPostStatus
ACTIVE_POSTED
SOLD
<<enumeration>>
ItemPurchaseStatus
ACTIVE_PURCHASE
PURCHASED
Item_posted
-name : string
-price : double
-photos : string[]
-description : string
-date : DATE
-item_post_status : ItemPostStatus
+getName() : string
+setName(name : string) : void
+getPrice() : double
+setPrice(price : double) : void
+getPhotos() : string[]
+setPhotos(photos : string[]) : void
+getDescription() : string
+setDescription(description : string) : void
+getDate() : DATE
+setDate(date : DATE) : void
+getItem_post_status() : ItemPostStatus
+setItem_post_status(item_post_status : ItemPostStatus) : void
+Item_posted(name : string, price : double, photos : string[], description : string, date : DATE, item_post_status : ItemPostStatus)
Pending_Request
-request_type : RequestType
-user_connected : long
+getRequest_type() : RequestType
+setRequest_type(request_type : RequestType) : void
+getUser_connected() : long
+setUser_connected(user_connected : long) : void
+Pending_Request(request_type : RequestType, user_connected : long)
Friend
-date_added : DATE
-user_connected : long
+getDate_added() : DATE
+setDate_added(date_added : DATE) : void
+getUser_connected() : long
+setUser_connected(user_connected : long) : void
+Friend(date_added : DATE, user_connected : long)
pending_requests
0..*
1
friends
0..*
1
Message
-message : string
-date_time : DATE
+getMessage() : string
+setMessage(message : string) : void
+getDate_time() : DATE
+setDate_time(date_time : DATE) : void
+Message(message : string, date_time : DATE)
messages
0..*
1
conversation
0..*
user
1
items_posted
1
1
item_posted
item_posted
1
User
-name : string
-address : string
-phone_number : string
-email_id : string
-credit_card_number : long
-cvv : int
-username : string
-password : string
+getName() : string
+setName(name) : void
+getAddress() : string
+setAddress(address : string) : void
+getPhone_number() : string
+setPhone_number(phone_number : string) : void
+getEmail_id() : string
+setEmail_id(email_id : string) : void
+getCredit_card_number() : long
+setCredit_card_number(credit_card_number : long) : void
+getCvv() : int
+setCvv(cvv : int) : void
+getUsername() : string
+setUsername(username : string) : void
+getPassword() : string
+setPassword(password : string) : void
+User(name : string, address : string, phone_number : string, email_id : string, credit_card_number : long, cvv : int, username : string, password : string)
1
conversations
0..*
Conversation
-pending_for_status : long
-counter_user : long
+getPending_for_status() : long
+setPending_for_status(pending_status : long) : void
+getCounter_user() : long
+setCounter_user(counter_user : long) : void
+Conversation(pending_for_status : long, counter_user : long)
item_purchase
0..1
item_purchase
0..*
user
1
item_purchases
0..1
user
1
user
1
reviews
0..*
1
0..1
review
item_purchase
1
review
0..1
Review
-review : string
-seller_id : long
+getReview() : string
+setReview(review : string) : void
+getSeller_id() : long
+setSeller_id(seller_id : long) : void
+Review(review : string, seller_id : long)
0..1
Item_purchase
-item_purchase_status : ItemPurchaseStatus
-date_bought : DATE
-price_bought_at : double
-reviewed : boolean = False
+getItem_purchase_status() : ItemPurchaseStatus
+setItem_purchase_status(item_status : ItemPurchaseStatus) : void
+getDate_bought() : DATE
+setDate_bought(date_sold : DATE) : void
+getPrice_bought_at() : double
+setPrice_bought_at(price_bought_at : double) : void
+getReviewed() : boolean
+setReviewed(reviewed : boolean) : void
+Item_purchase(date_sold : DATE, item_purchase_status : ItemPurchaseStatus, price_sold_at : double, reviewed : boolean)
0..*
payments
payment
1
Payment
-date : DATE
-made_to_user : long
-transaction_id : long
+getDate() : DATE
+setDate(date : DATE) : void
+getMade_to_user() : long
+setMade_to_user(made_to_user : long) : void
+getTransaction_id() : long
+setTransaction_id(transaction_id : long) : void
+Payment(date : DATE, made_to_user : long, transaction_id : string)
0..1
user
1
1
wallet
0..*
payments
wallet
1
Wallet
-balance
+getBalance()
+setBalance(balance) : void
+Wallet(balance : double)
Database_Handler
+save_item_posted(item_posted : Item_posted) : long
+save_user(user : User) : long
+save_wallet(wallet : Wallet) : long
+save_review(review : Review) : long
+create_message(message : Message) : long
+create_payment(payment : Payment) : long
+save_conversation(conversation : Conversation) : long
+create_friend(friend : Friend) : long
+save_item_purchase(item_purchase : Item_purchase) : long
+create_pending_request(pending_request : Pending_Request) : long
+get_item_posted(item_posted_id : long) : Item_posted
+get_user(user_id : long) : User
+get_wallet(wallet_id : long) : Wallet
+get_review(review_id : long) : Review
+get_message(message_id : void) : Message
+get_payment(payment_id : long) : Payment
+get_conversation(conversation_id : long) : Conversation
+get_item_purchase(item_purchase_id : long) : Item_purchase
+get_friend(friend_id : long) : Friend
+get_pending_request(pending_request_id : long) : Pending_Request
+delete_item_posted(item_posted_id : long) : void
+delete_user(user_id : long) : void
+delete_wallet(wallet_id : long) : void
+delete_review(review_id : long) : void
+delete_message(message_id : long) : void
+delete_payment(payment_id : void) : void
+delete_conversation(conversation_id : long) : void
+delete_item_purchase(item_purchase_id : long) : void
+delete_friend(friend_id : long) : void
+delete_pending_request(pending_request_id : long) : void
Controller
+signup(name : string, address : string, email_id : string, phone_number : string, credit_card_number : long, cvv : int, user_name : string, password : string) : boolean
+login(username : string, password : string) : boolean
+logout(user_id : long) : boolean
+send_friend_request(user_id : long, user_connected : long, request_type : RequestType) : void
+send_message(conversation_id : long, message : string, timestamp : DATE) : void
+get_seller_review(seller_id : long) : Review[]
+view_friend_list(user_id : long) : Friend[]
+view_conversations(user_id : long) : Conversation[]
+view_posted_items(user_id : long) : Item_posted[]
+view_purchase_items(user_id : long) : Item_purchase[]
+search_item(item_name : string) : Item_posted[]
+get_payment_history(user_id : long) : Payment[]
+search_user(username : string) : User[]
+view_messages(conversation_id : long) : Message[]
+purchase_item(user_id : long, item_posted_id : long) : void
+make_payment(user_id : long, made_to_user_id : long) : boolean
+add_request_to_friend_list(pending_request_id : long, accept : boolean) : void
+add_credit_to_wallet(user_id : long, amount : double) : boolean
+withdraw_credit(bank_account_number : long, bank_name : string, bank_branch_id : string) : boolean
Bank_Transaction_Handler
+bank_transfer_to_user_account(bank_account_number : long, bank_name : string, branch_id : string) : long
+credit_card_to_company_account(credit_card_number : long, cvv : int) : long
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Accept/Cancel Pending Requests

Login/Update Profile Activity Diagram

User | Controller | Database handler

Logins

Redirects to User Home Page

Clicks View Pending Requests

Fetch All User Pending Requests

Return All Pending Requests

List All Pending Requests

[For Each Request Received]

Click Reject

Remove Pending Request

Click Accept

Add Sender as a Friend of User

Add Sender as User's Friend

Add User to Sender's Friend List

Add user as Friend of sender

Delete Pending Request

Refresh Pending Requests List

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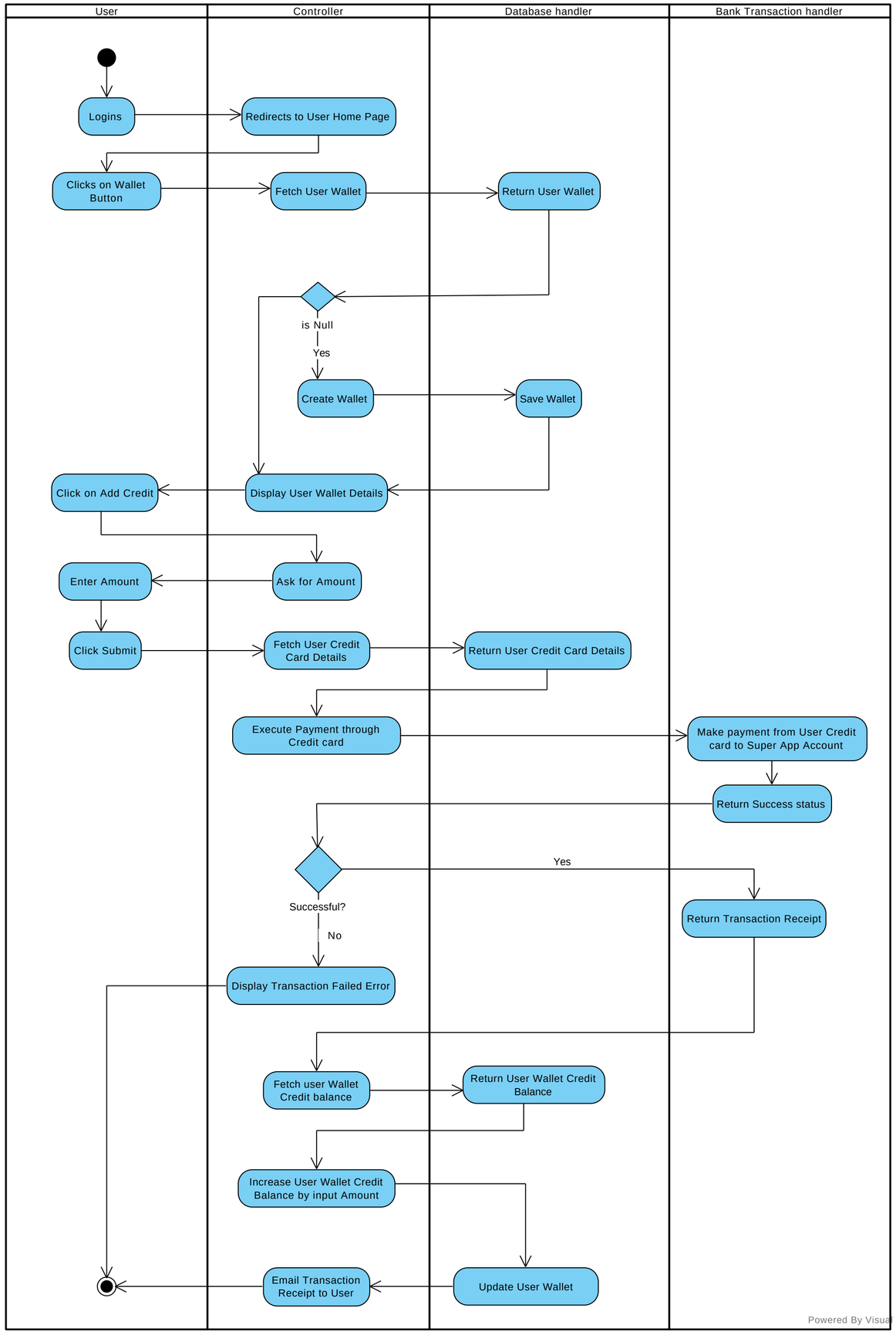
Add Credit to Wallet



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Add Friend

Login/Update Profile Activity Diagram

User

Controller

Database Handler

Logins

Redirects to User Home Page

Displays Search Bar

Enter Username to Search

Choose User as Filter option

Search for Username in Users Database

Return User x Id

Return User x Photo

Return User x Username

Return User x Name

[For each User x matched with Username]

Fetch User Friend List

Return User Friend List

Display the List of Users with Id, Photo, Username, Name

[For every User x List Item]

Display Send Friend Request Button next to User x not present in Friend List

Found Friend?

No

Yes

Click Send Friend Request

create User Pending Requests

Save User Pending Request

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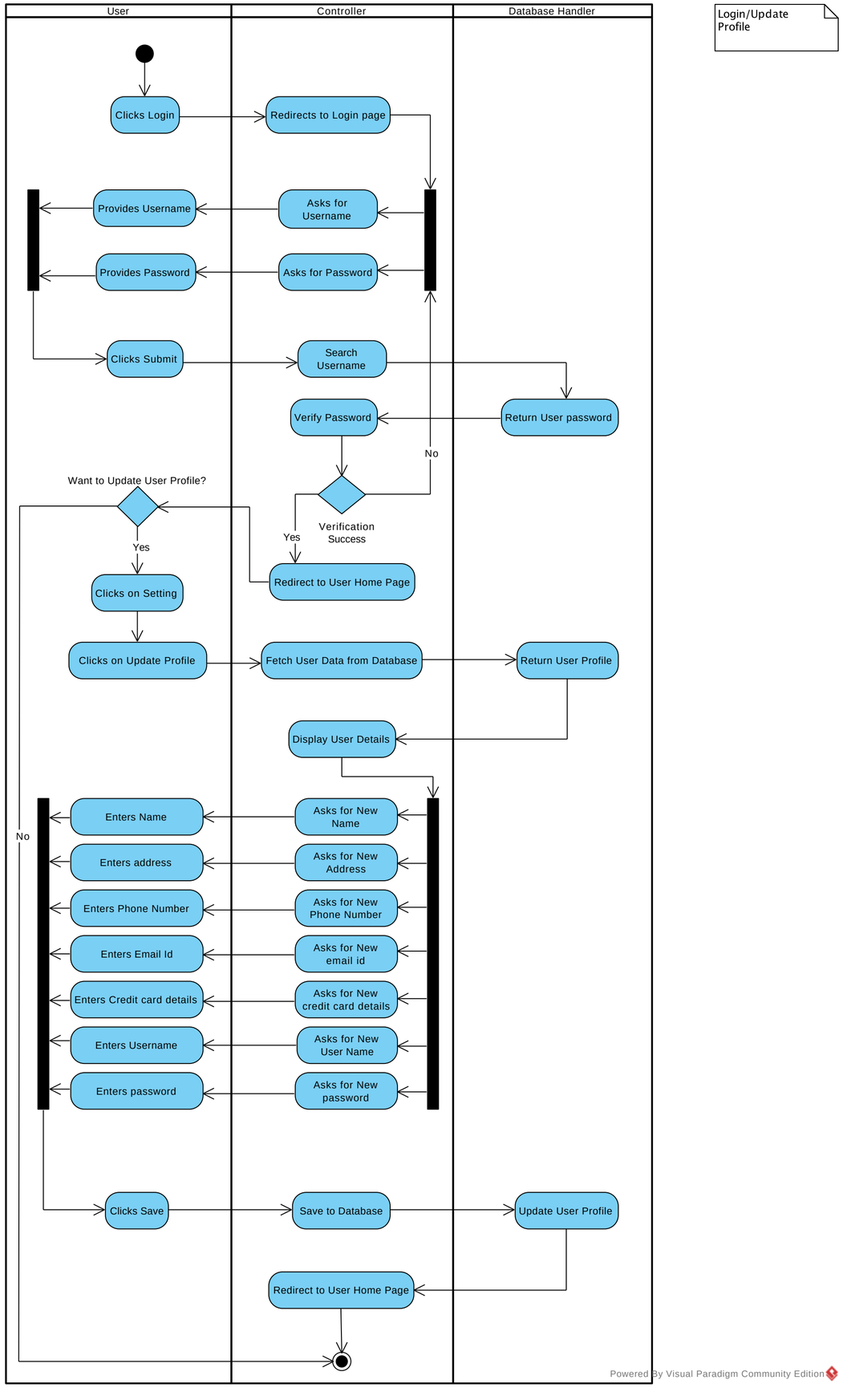
Login/Update Profile



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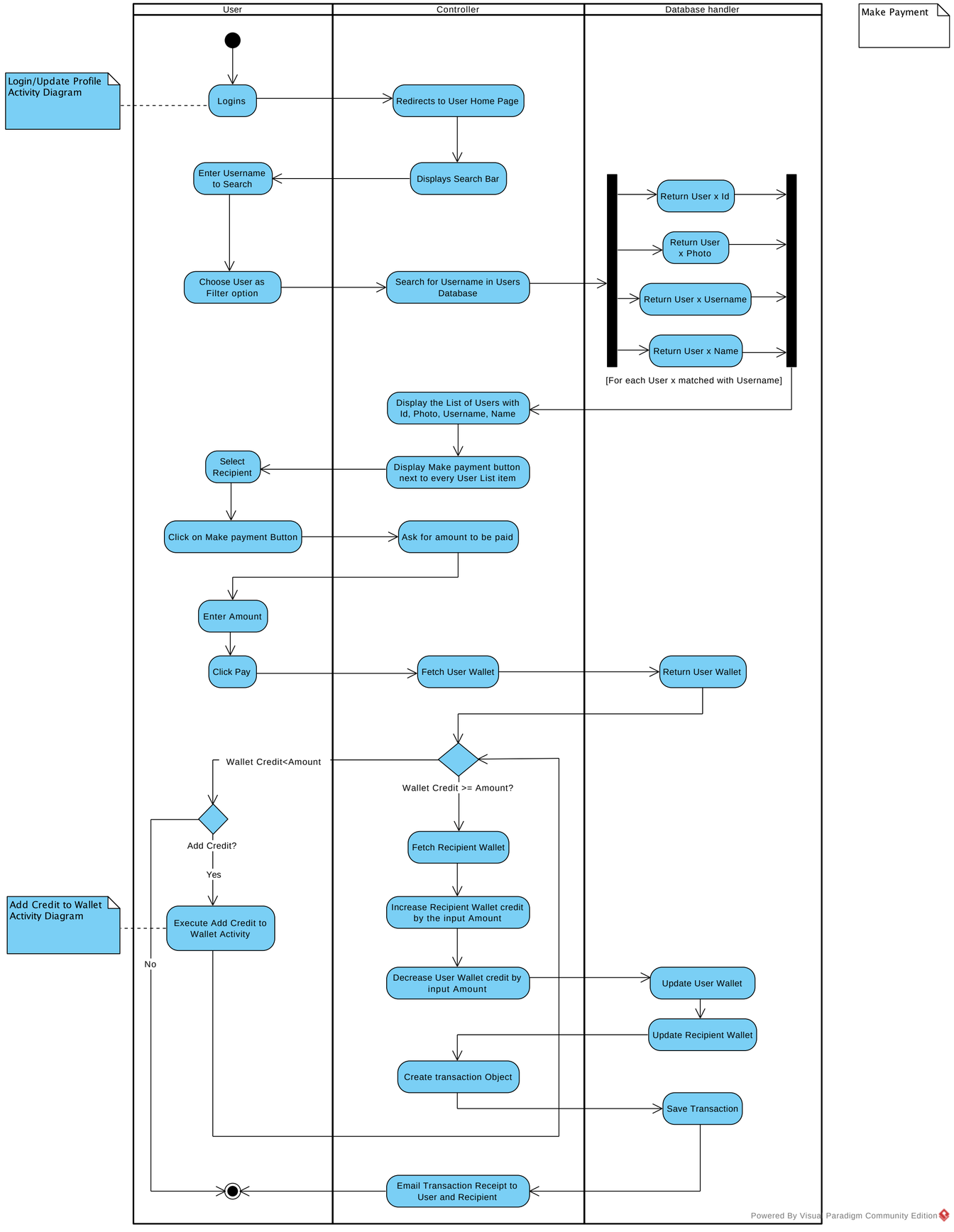
User
Controller
Database handler
Make Payment
Login/Update Profile Activity Diagram
Logins
Redirects to User Home Page
Displays Search Bar
Enter Username to Search
Choose User as Filter option
Search for Username in Users Database
Return User x Id
Return User x Photo
Return User x Username
Return User x Name
[For each User x matched with Username]
Display the List of Users with Id, Photo, Username, Name
Display Make payment button next to every User List item
Select Recipient
Click on Make payment Button
Ask for amount to be paid
Enter Amount
Click Pay
Fetch User Wallet
Return User Wallet
Wallet Credit<Amount
Wallet Credit >= Amount?
Add Credit?
Yes
No
Add Credit to Wallet Activity Diagram
Execute Add Credit to Wallet Activity
Fetch Recipient Wallet
Increase Recipient Wallet credit by the input Amount
Decrease User Wallet credit by input Amount
Update User Wallet
Update Recipient Wallet
Create transaction Object
Save Transaction
Email Transaction Receipt to User and Recipient
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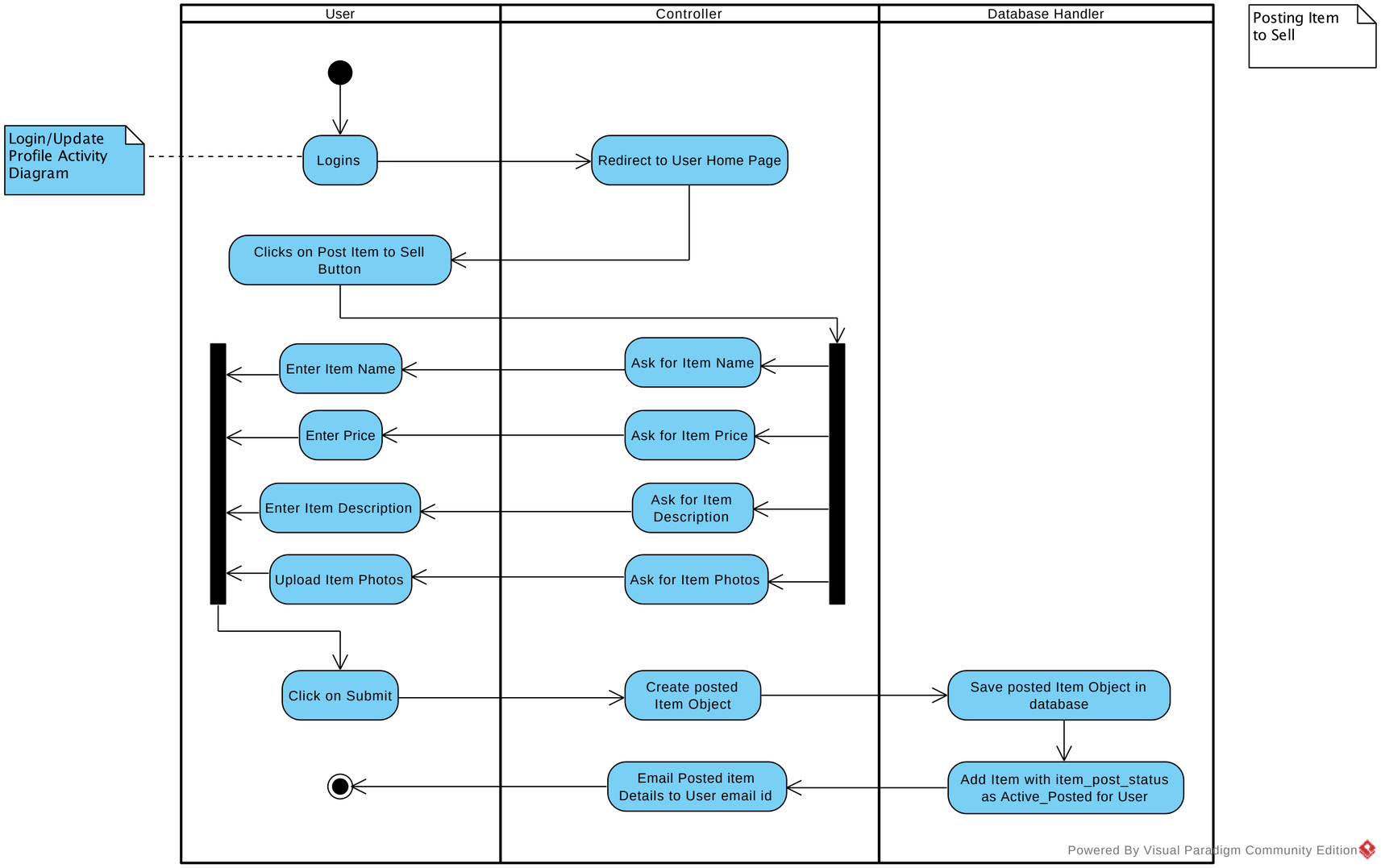
User
Controller
Database Handler
Posting Item to Sell
Login/Update Profile Activity Diagram
Logins
Redirect to User Home Page
Clicks on Post Item to Sell Button
Enter Item Name
Ask for Item Name
Enter Price
Ask for Item Price
Enter Item Description
Ask for Item Description
Upload Item Photos
Ask for Item Photos
Click on Submit
Create posted Item Object
Save posted Item Object in database
Email Posted item Details to User email id
Add Item with item_post_status as Active_Posted for User
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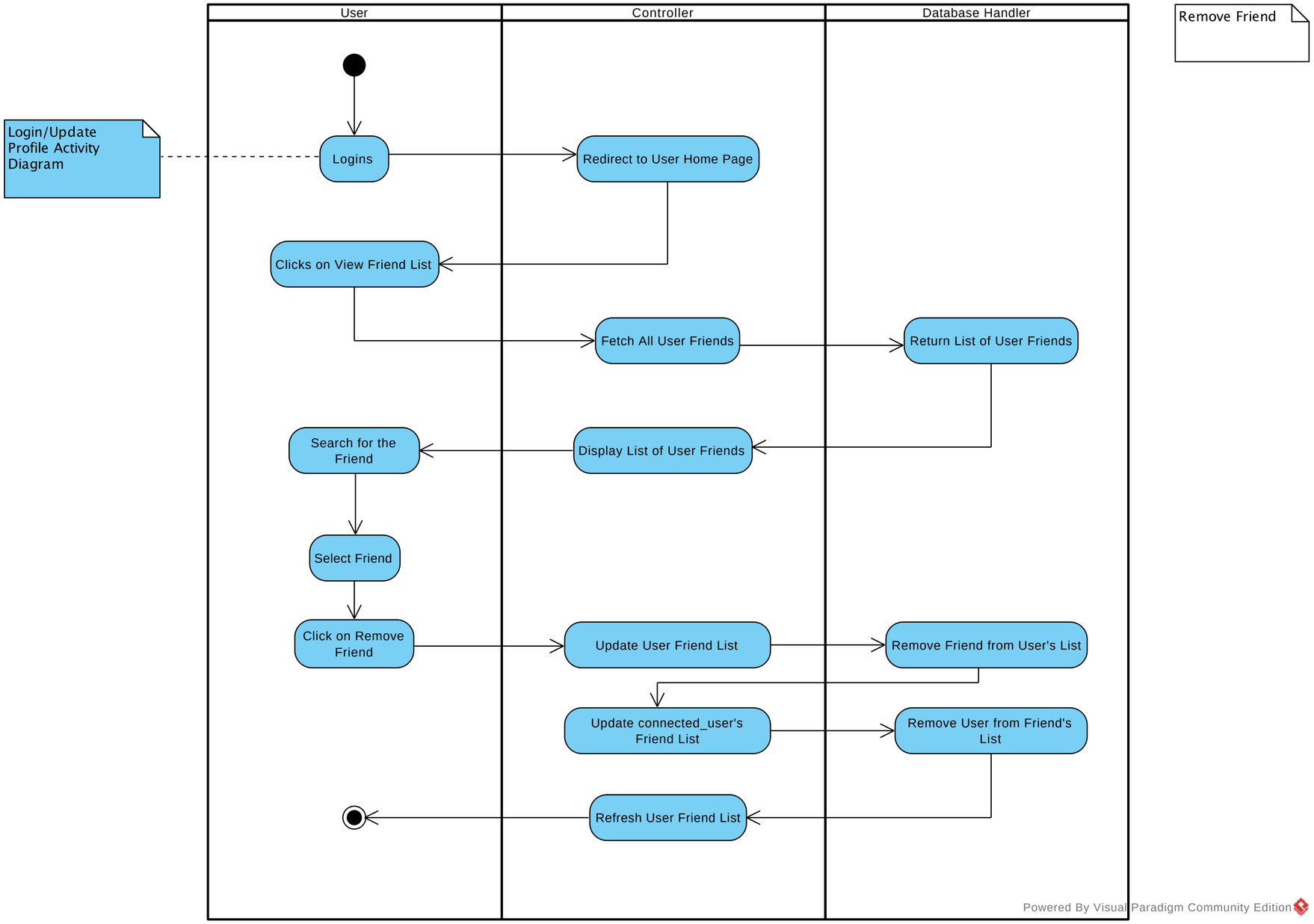
User
Controller
Database Handler
Remove Friend
Login/Update Profile Activity Diagram
Logins
Redirect to User Home Page
Clicks on View Friend List
Fetch All User Friends
Return List of User Friends
Search for the Friend
Display List of User Friends
Select Friend
Click on Remove Friend
Update User Friend List
Remove Friend from User's List
Update connected_user's Friend List
Remove User from Friend's List
Refresh User Friend List
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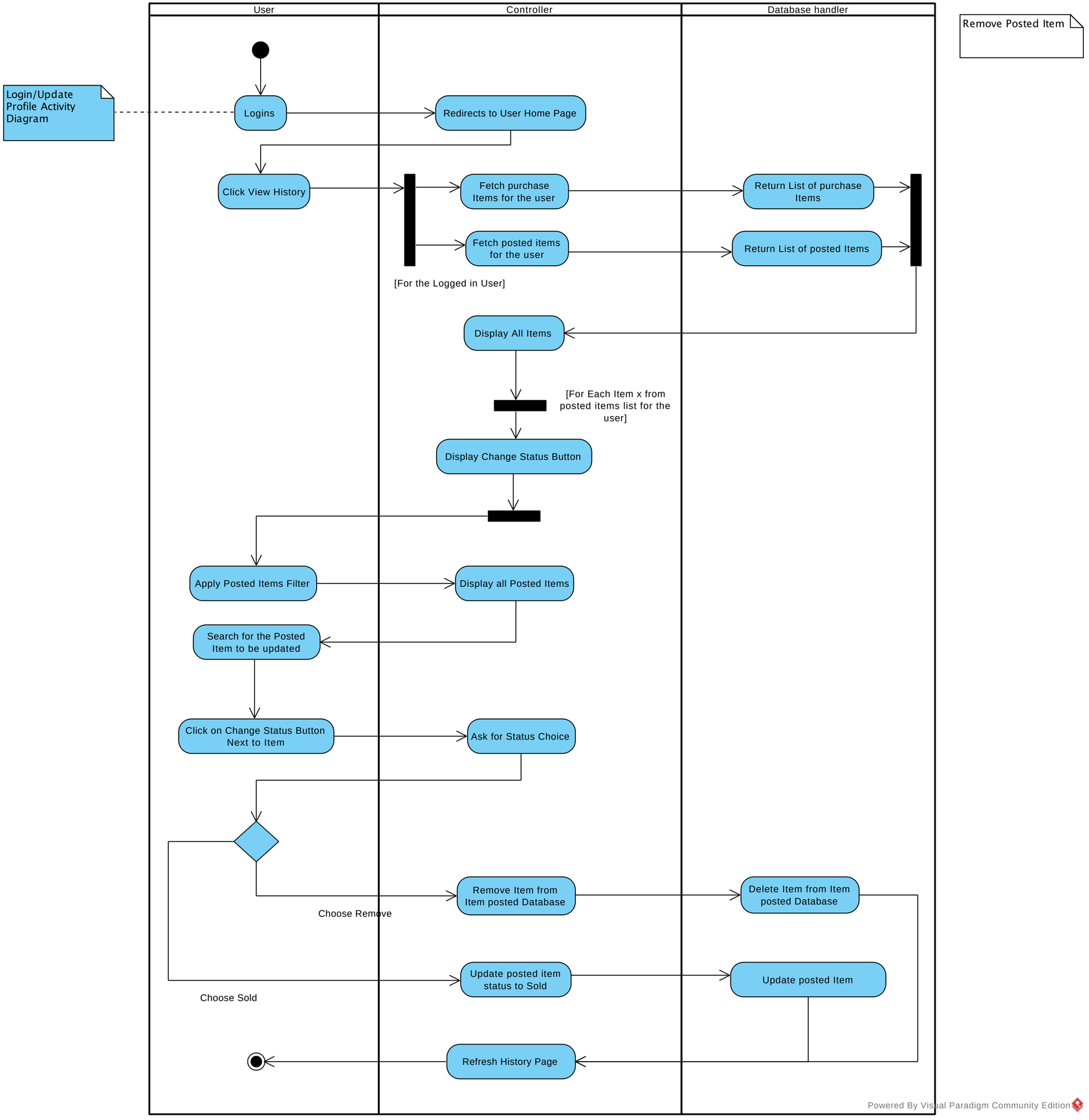
User
Controller
Database handler
Remove Posted Item
Login/Update Profile Activity Diagram
Logins
Redirects to User Home Page
Click View History
Fetch purchase Items for the user
Return List of purchase Items
Fetch posted items for the user
Return List of posted Items
[For the Logged in User]
Display All Items
[For Each Item x from posted items list for the user]
Display Change Status Button
Apply Posted Items Filter
Display all Posted Items
Search for the Posted Item to be updated
Click on Change Status Button Next to Item
Ask for Status Choice
Remove Item from Item posted Database
Delete Item from Item posted Database
Choose Remove
Update posted item status to Sold
Update posted Item
Choose Sold
Refresh History Page
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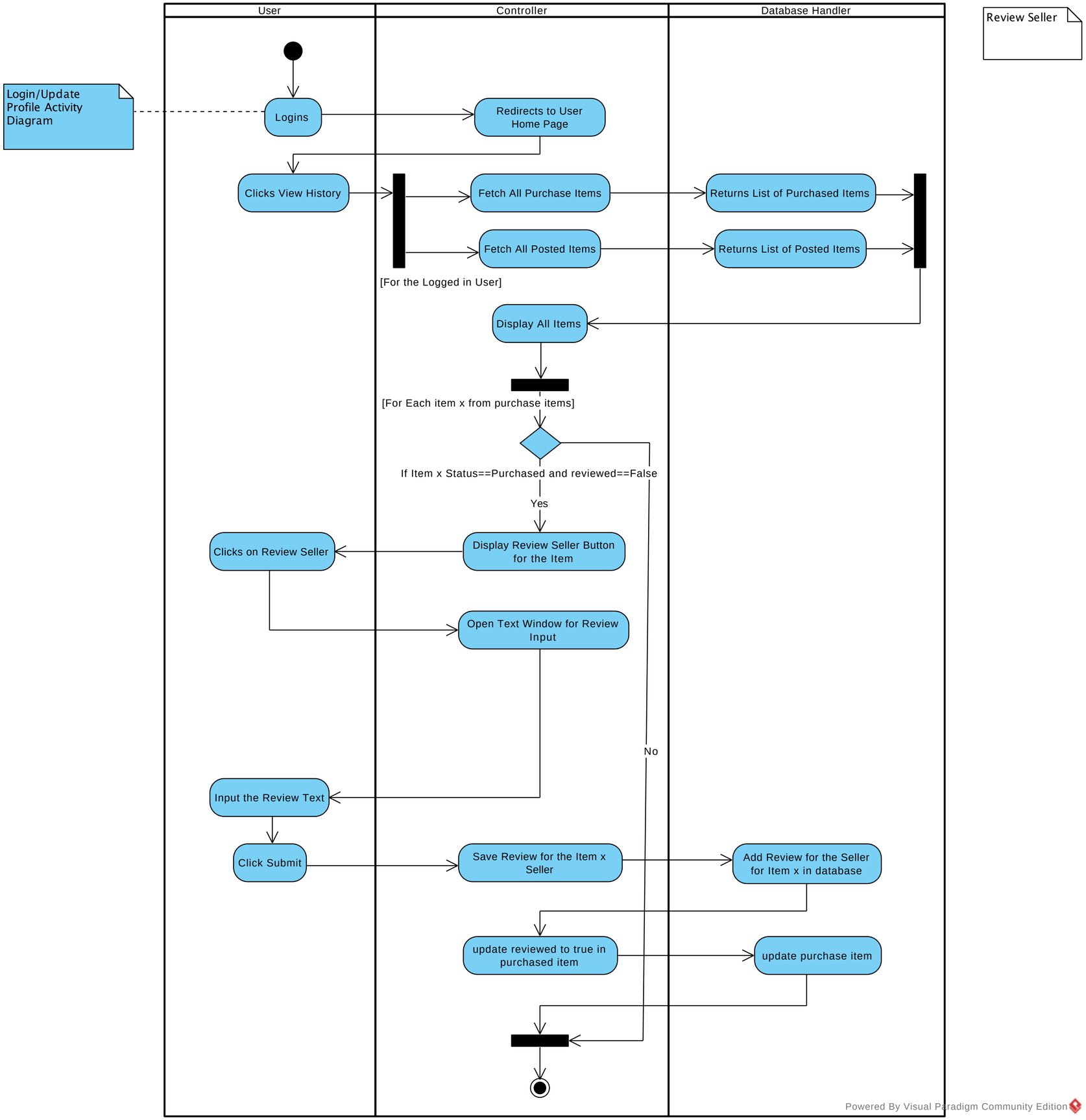
User
Controller
Database Handler
Review Seller
Login/Update Profile Activity Diagram
Logins
Redirects to User Home Page
Clicks View History
Fetch All Purchase Items
Returns List of Purchased Items
Fetch All Posted Items
Returns List of Posted Items
[For the Logged in User]
Display All Items
[For Each item x from purchase items]
If Item x Status==Purchased and reviewed==False
Yes
No
Clicks on Review Seller
Display Review Seller Button for the Item
Open Text Window for Review Input
Input the Review Text
Click Submit
Save Review for the Item x Seller
Add Review for the Seller for Item x in database
update reviewed to true in purchased item
update purchase item
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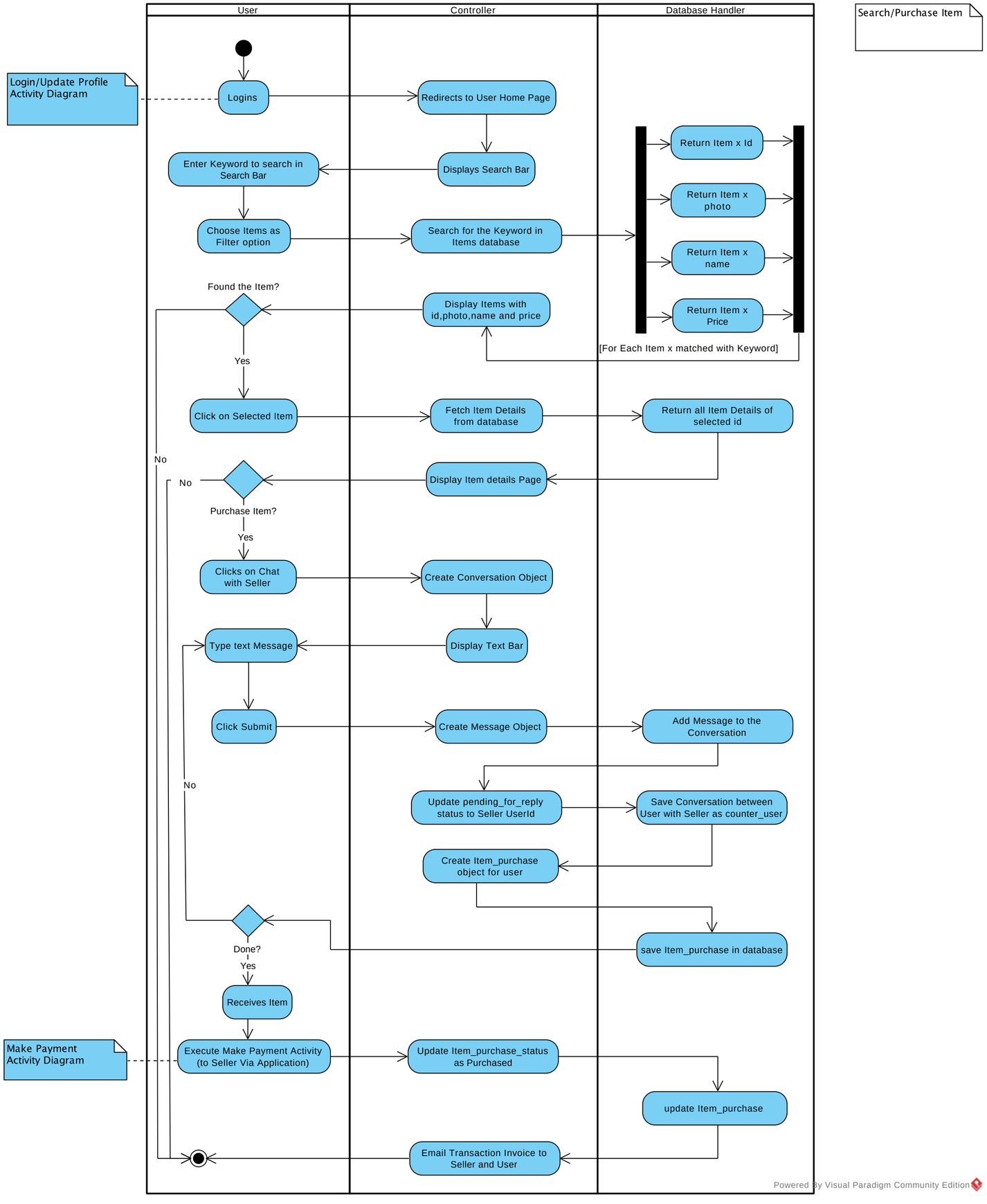

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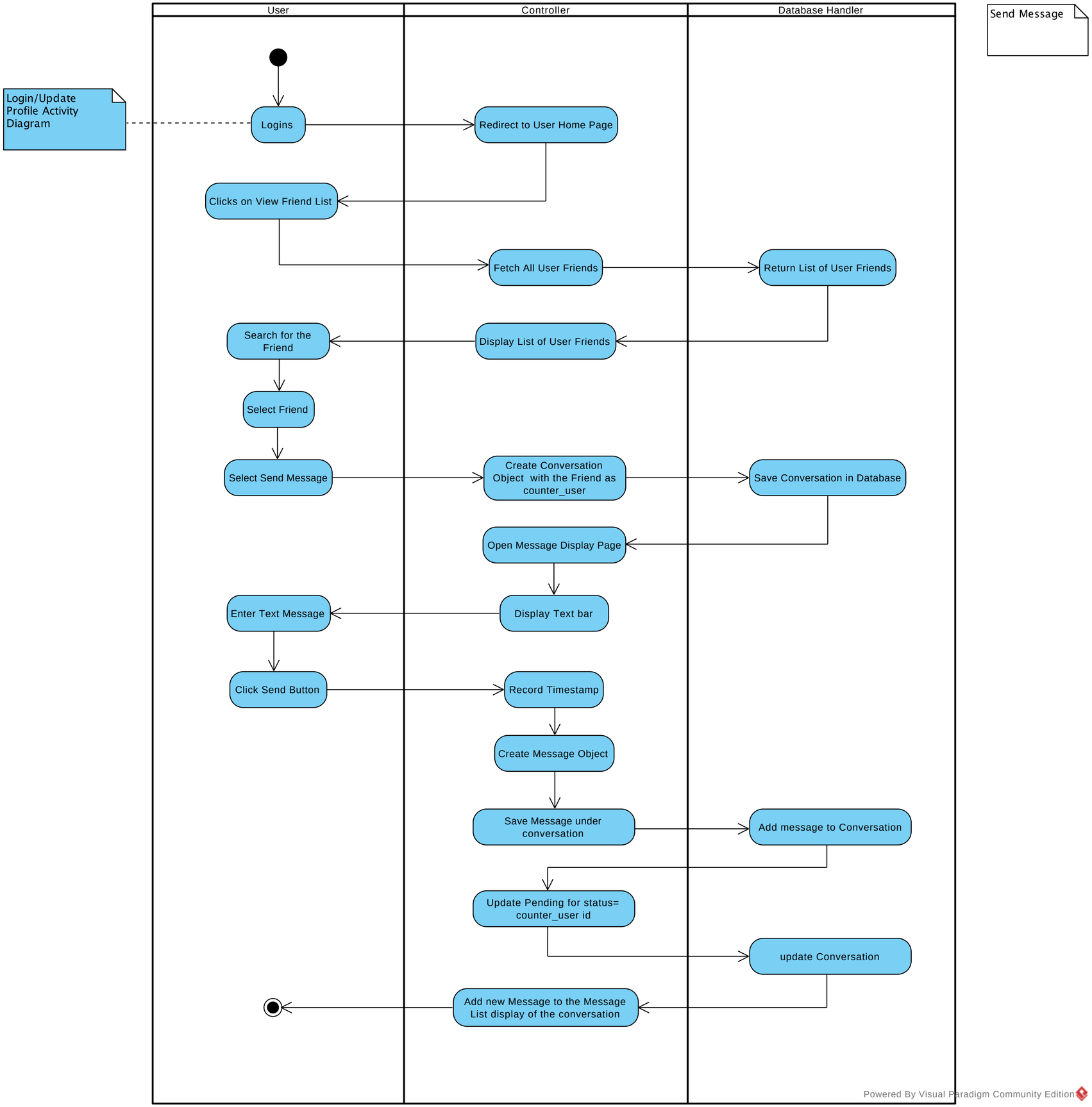
Login/Update Profile Activity Diagram
User
Controller
Database Handler
Send Message
Logins
Redirect to User Home Page
Clicks on View Friend List
Fetch All User Friends
Return List of User Friends
Search for the Friend
Display List of User Friends
Select Friend
Select Send Message
Create Conversation Object with the Friend as counter_user
Save Conversation in Database
Open Message Display Page
Enter Text Message
Display Text bar
Click Send Button
Record Timestamp
Create Message Object
Save Message under conversation
Add message to Conversation
Update Pending for status= counter_user id
update Conversation
Add new Message to the Message List display of the conversation
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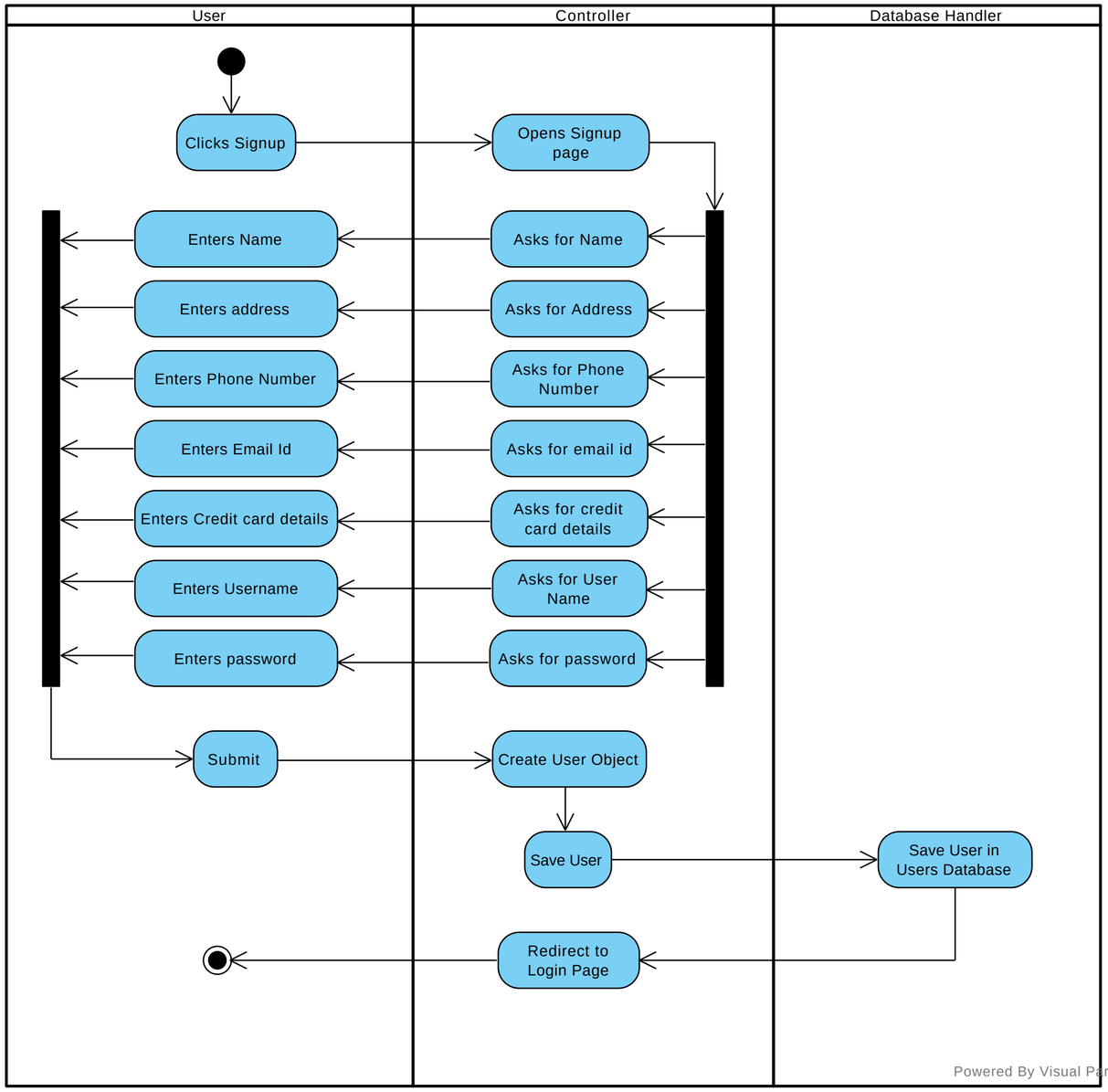
Sign up


User
Controller
Database Handler
Clicks Signup
Opens Signup page
Enters Name
Asks for Name
Enters address
Asks for Address
Enters Phone Number
Asks for Phone Number
Enters Email Id
Asks for email id
Enters Credit card details
Asks for credit card details
Enters Username
Asks for User Name
Enters password
Asks for password
Submit
Create User Object
Save User
Save User in Users Database
Redirect to Login Page
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Update Posted Item

Login/Update Profile Activity Diagram

User

Controller

Database handler

Logins

Redirects to User Home Page

Click View History

Fetch All Purchase items

Return List of Purchase Items

Fetch All Posted Items

Return List of Posted Items

[For the Logged in User]

Display All Items

[For Each Item x from posted items and posted_item_status==Active_Posted]

Display Update Posted Item Button

Apply Posted Items Filter

Display all Posted Items

Search for the Posted Item to be updated

Click Update Posted Item Button next to Item

Fetch the Posted Item Object

Return the Item Object

Enter Item Name

Ask for Name

Update Item Name Parameter

Enter Price

Ask for Price

Update Item Price Parameter

Enter item Description

Ask for Description

Update Item Description Parameter

Upload Item Photos

Ask for Item Photos

Update Item Photos

Click Submit Button

Save Item Object

Update posted item in Database

Email Updated Item Details to the User

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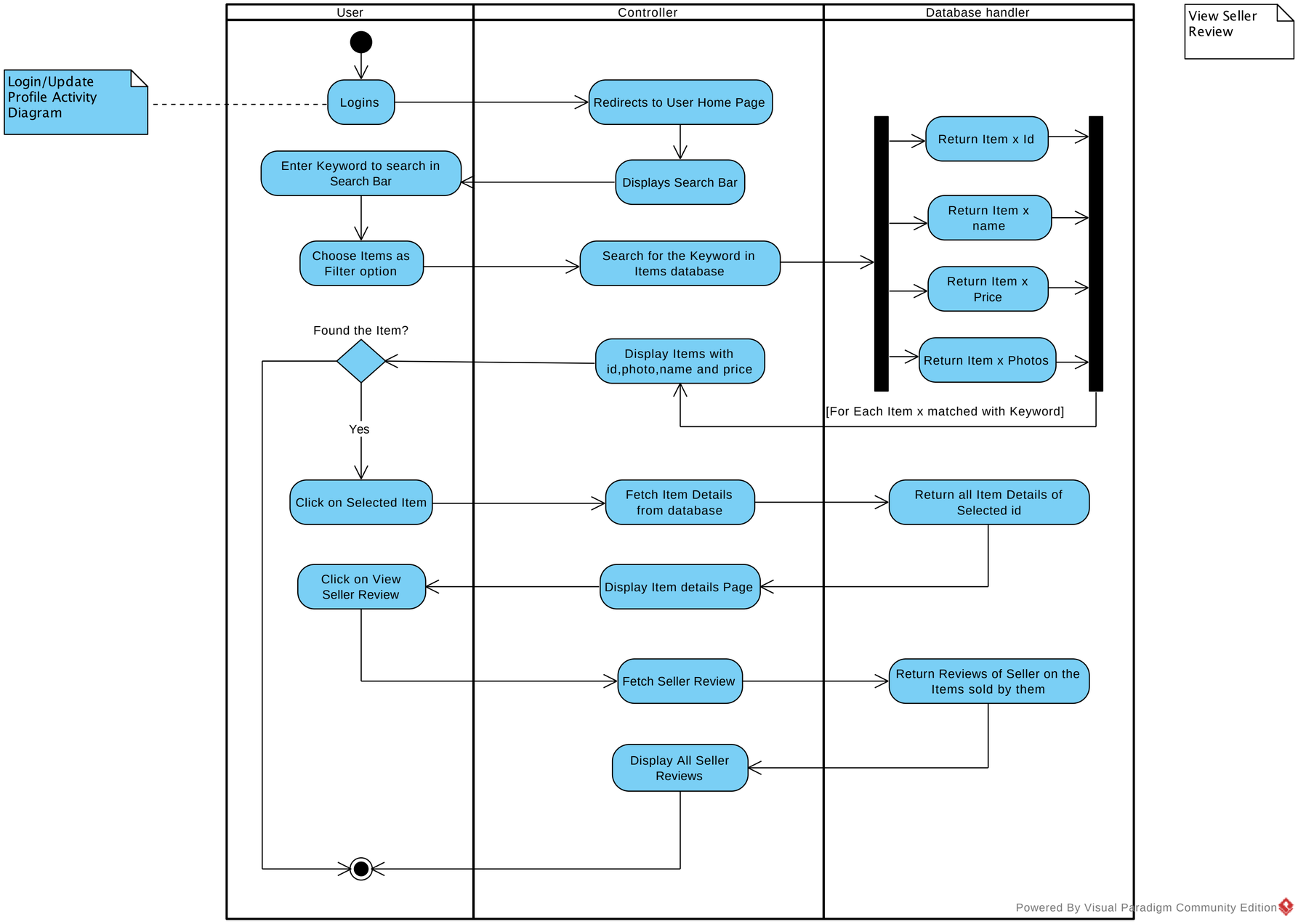
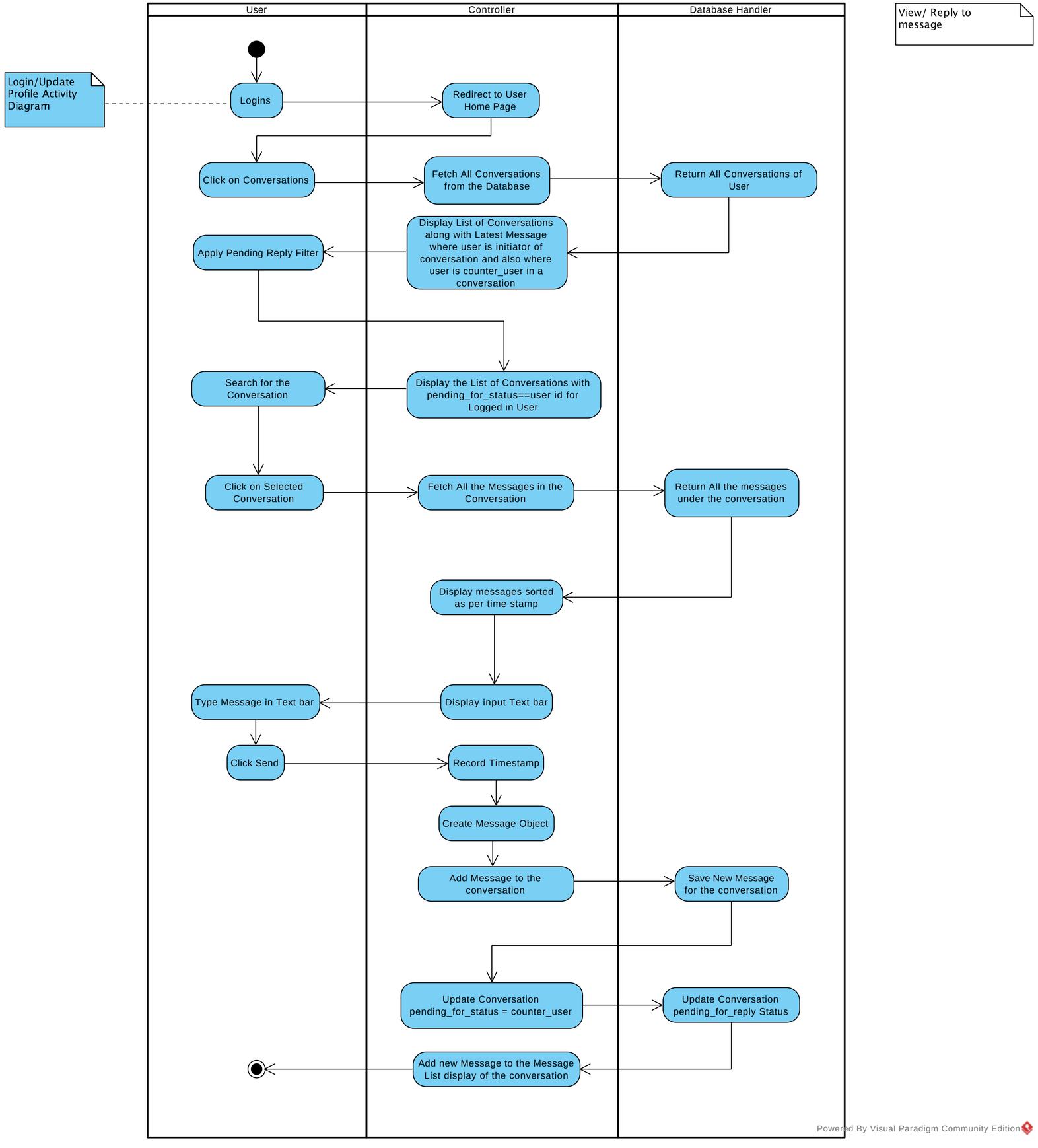


View Seller Review



View/ Reply to message

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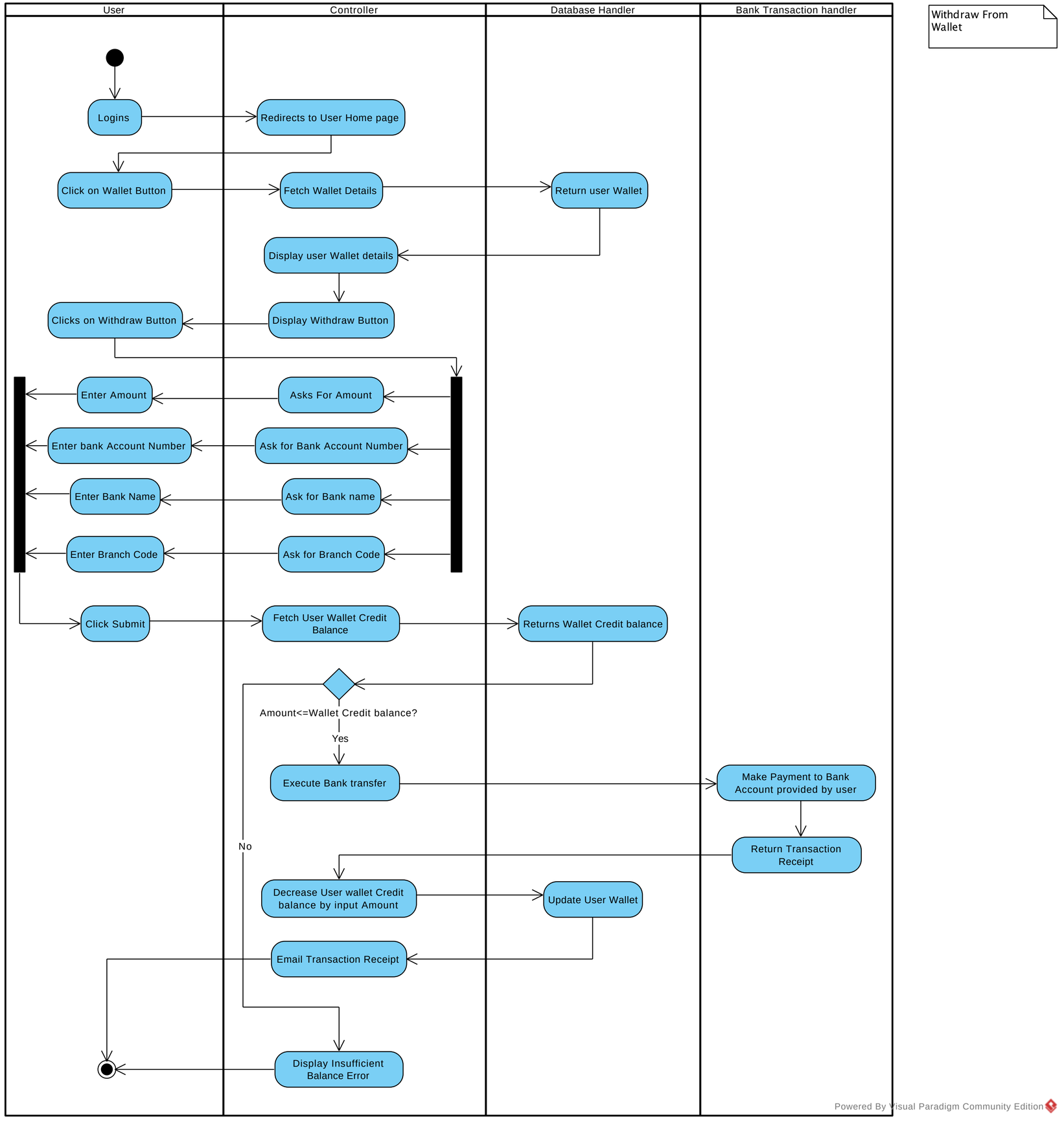
Withdraw From Wallet



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