Sri Lanka Institution of Information Technology

Assignment 2
MLB_05.02_01

Online Pet Care System

Software processing Model -IT1060

BSc (Hons) in Information Technology

BSc (Hons) in Information Technology

PROJECT ID	MLB_05.02_01
CASE STUDY NAME	Online Pet Care System
CAMPUS / CENTER	Malabe

Group Details:

	Student Registration Number	Student Name
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2	IT21302480	DILSHAN O.A. P
3	IT21301704	DE SILVA L. M. C
4	IT21299452	DILHARA W. M. A.
5	IT21301018	PADUKKA P.V.G. G

We hereby certify,

✓ The attached is our own work and no further changes will be made.

✓ We have contributed in this assignment to the best of our ability.

And we understand,

✓ We may be subject to student discipline processes in the event of an act of academic misconduct by us including an act of plagiarism or cheating.

Group Details:

	Student Name	Student Registration Number	Date	Signature
1	**ZAKEY.M.S.M. A**	**IT21299902**	**02 / 05 / 2022**	*Azakey*
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5	PADUKKA P. V.G. G	IT21301018	02 / 05 / 2022	*Ginuri*

Introduction

With the socio-economic challenges of the novel coronavirus pandemic, an online pet care system will be a helping hand to all the individuals who have little four-legged friends and are brisking up with the new Technology

The customer can be either a registered or a non-registered customer to access our services and visit our pet care system.

We will be providing our valuable customers with OPD treatments to their little four-legged animals & vaccination, surgeries, Grooming, Dental Care, Pet boarding & Hospitalization, Pet taxi & Mobile Veterinary service, Laboratory families, Digital X-rays, and scanning.

In addition, we provide quality products for your little friends and accept donations to help the stray animals, online payments, requests for help and provide feedback.

Further, the customers can make complaints and donations to protect our adorable animals.

Assumptions

- We assumed that this system would be more useful for the users to find out the best services and quality products they have seeking for

- Once the service reservation is confirmed by the system, an automated invoice will be generated by the system, and it will be sent to the user by email. When a user visits the shop to get the service, they must show the e-mail that the system forwarded to them via email and must be shown to the receptionist.

- If they have any issues with registration, service booking, or shop orders, they can contact the support service and seek technical support.

ZAKEY M.S.M.A (IT21299902)

Student name	Registration number	Date	signature
Zakey .M.S.M. A	It21299902	02/05/2022	*Azakey*

Part I

1.User Case Scenario

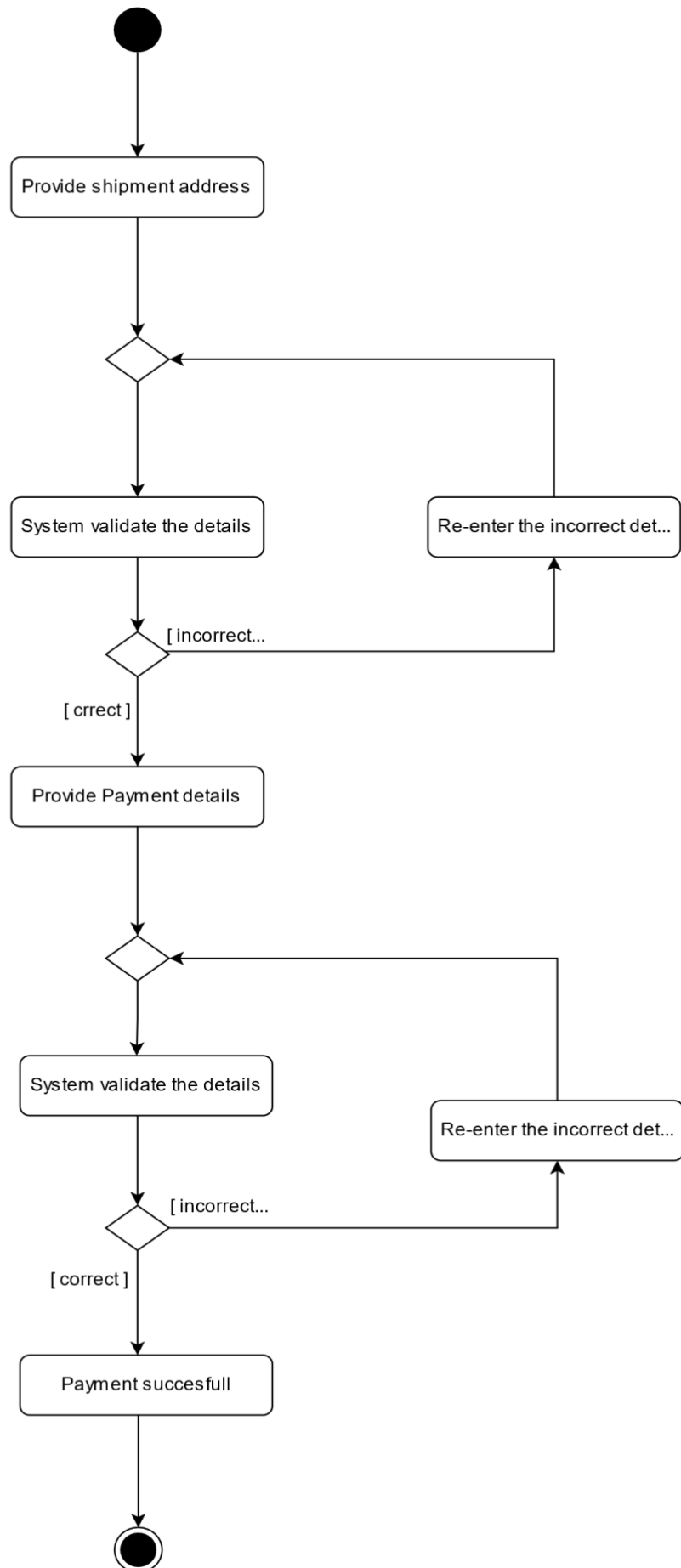| Number	OPC006	
Name	Purchase from the store.	
Summary	Users purchase an item from the store	
Priority	4	
Pre-conditions	Should be a registered user	
Post-conditions	The user will receive an invoice with the necessary details.	
Primary Actor	Registered User	
Trigger	The user has decided to purchase an item in-store	
Main Scenario	Step	Action
	1	Display home page
	2	Log in to the system
	3	Enter username and password to the system
	4	Display login successful.
	5	Re-direct to the top home page
	6	The user clicks on the "Pet Shop" button on the web page
	7	The system gives these categories in dropbox for the user to choose. - Pet Medicine - Pet Accessories - Pet Foods - Guidebooks
	8	Users select the 'pet accessories' from the drop-down box
	9	System redirects to the pet accessory page
	10	User search the item he/she want using the search bar
	11	Systems show that the item user search in the search bar
	12	Users select the item and click the 'Buy Now' button on the web page
	13	System redirects to the 'Buy Now' page
	14	The system shows order details - Shipping Address - Item Price - Shipping Cost

		• User Details
	15	User Clicks the' Checkout' button on the web page
	16	The system will show if there are any ongoing offers to selected items.
	17	If there are any ongoing offers user can enter the promo code to get the offer.
	18	User can select either the Cash on delivery or the Pay Now option to pay for the ordered items.
	19	User redirects to the 'Pay Now' page
	20	Users add card details and confirm the order.
	21	Receive confirmation via E-mail.
Extensions	**Step**	**Branching Action**
	4a	If the details are incorrect system asked to re-enter the details.
	10a	User Search the item in the search bar but that item is not available in the pet shop. System display following this message "Result Is Not Found" or suggest an item.
	20a	If the User entthe ers wrong card details. System display following this message "The card details are incorrect" and ask to re-enter details.

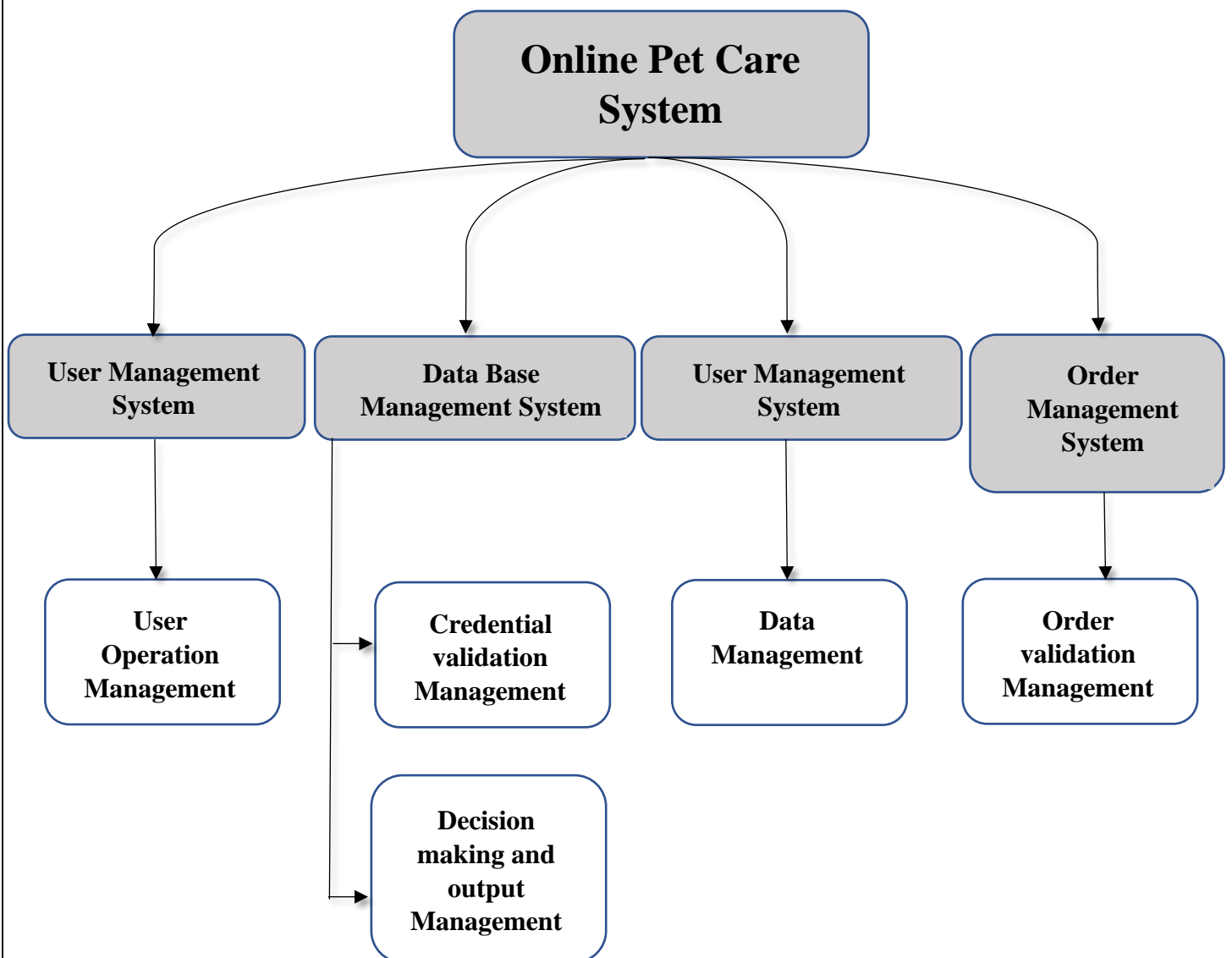# 2.Activity Diagram without partitioning

Sub Activities

Cash on delivey

```
        ●
        │
        ▼
┌──────────────────────┐
│ Provide shipping     │
│ address              │
└──────────────────────┘
        │
        ▼
       ◇ ◄──────────────────────┐
        │                        │
        ▼                        │
┌──────────────────────┐        │
│ System validate that │        │
│ all r...             │        │
└──────────────────────┘        │
        │                        │
        ▼    [uncussefull ]  ┌─────────────┐
       ◇ ──────────────────►│ modify      │
        │                    │ details     │
   [ success ]               └─────────────┘
        │
        ▼
┌──────────────────────┐
│ Accept details       │
└──────────────────────┘
        │
        ▼
        ◉
```

Text is not SVG - cannot display

Provide shipment address

System validate the details

Re-enter the incorrect det...

[incorrect...

[crrect]

Provide Payment details

System validate the details

Re-enter the incorrect det...

[incorrect...

[correct]

Payment succesfull
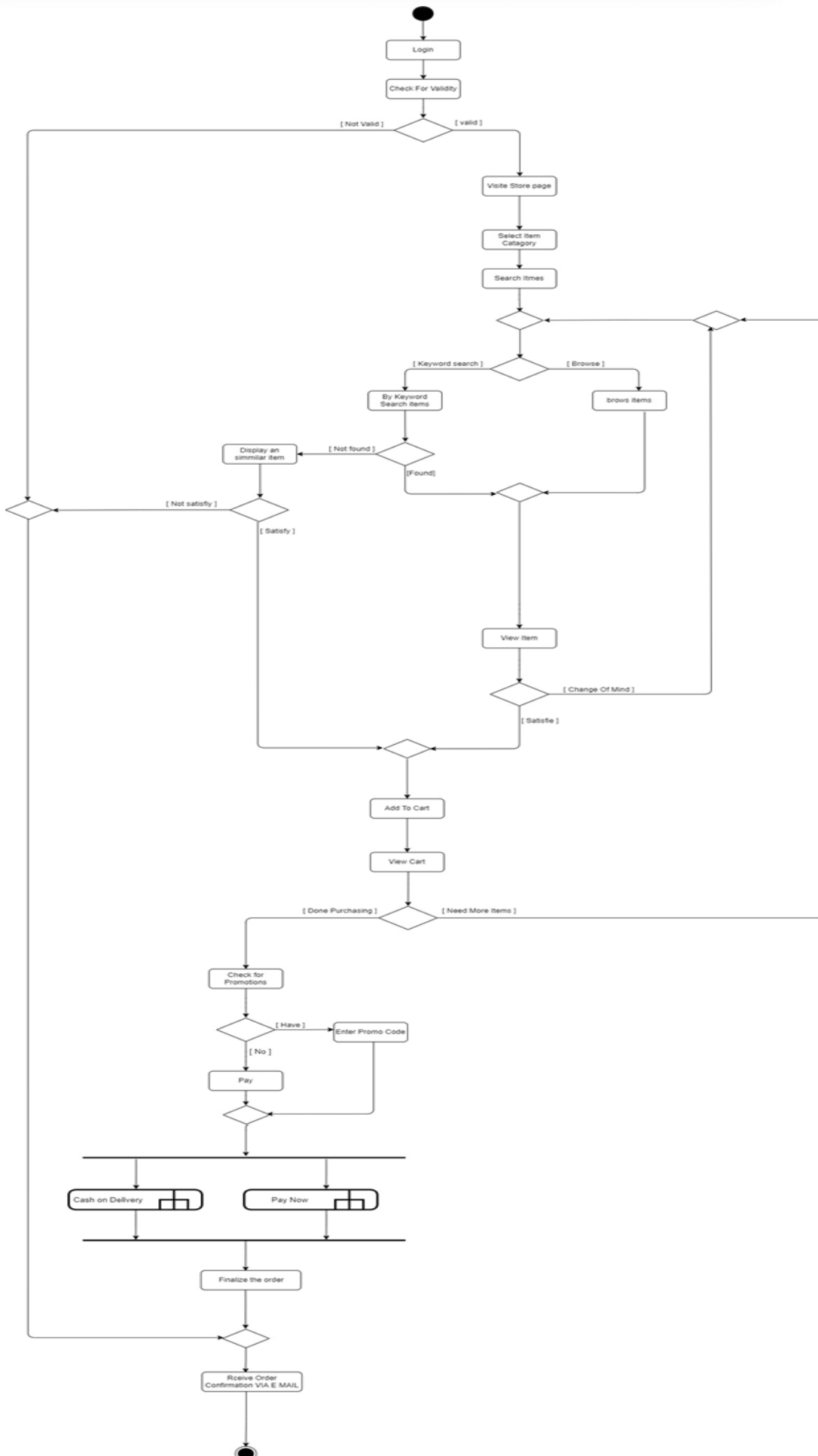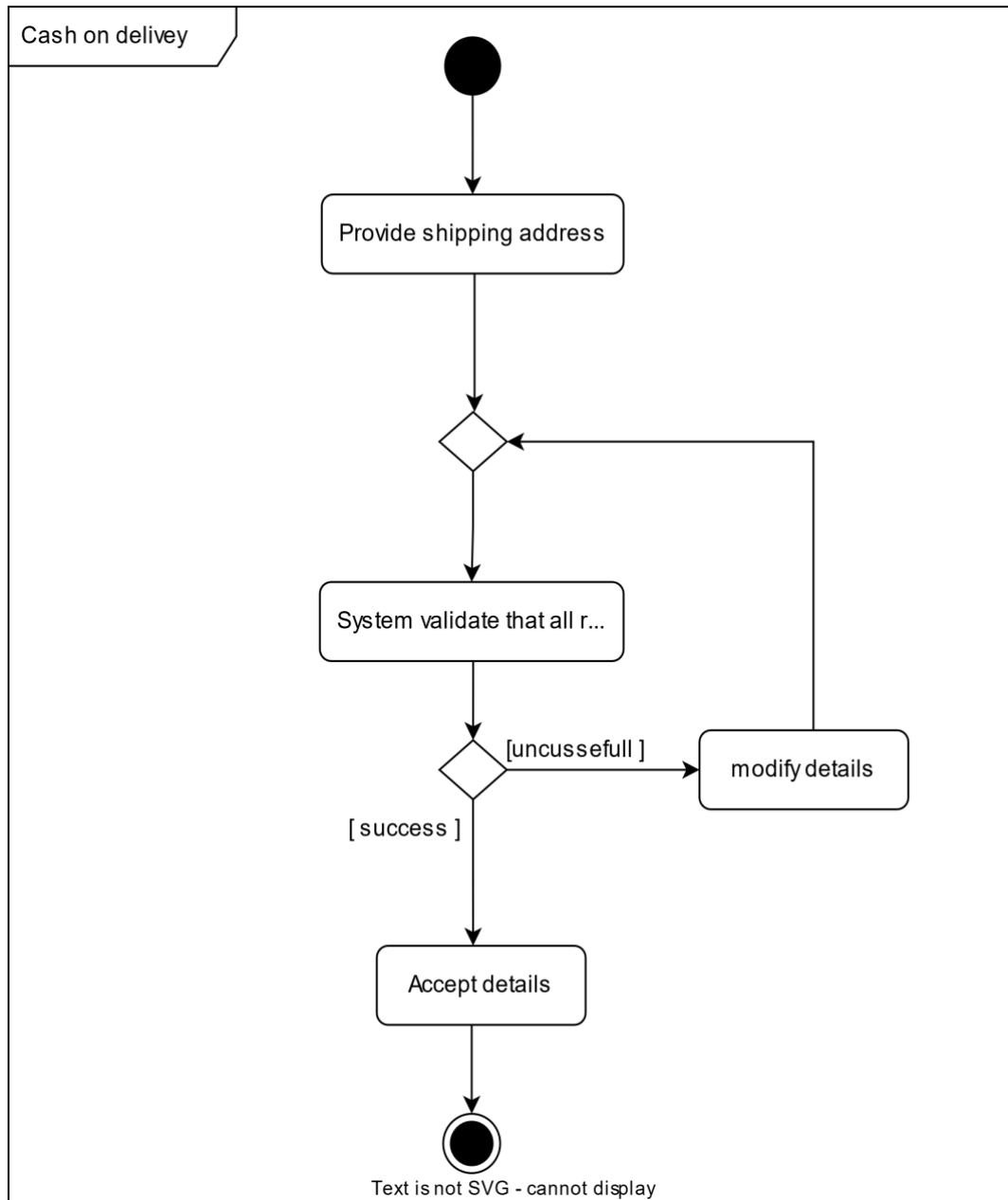
Text is not SVG - cannot display

Part II

1.Sub System

User Management System → User Operation Management

Data Base Management System → Credential validation Management, Decision making and output Management

User Management System → Data Management

Order Management System → Order validation Management

Online pet care system.

Level 01 sub-systems

- User Management System
- Database Management System.
- System operation Management system

- Order Management system.

Level 02 sub-systems.

→ User operation management.
→ Data management.
→ credential validation
→ decision making & output management

→ order validation management.

Description of sub systems.

1. **User management system** - customer, system owner, system admin, storekeeper are the user of this system.
   - **User operation management system** – this will handle all the actions/tasks doing by the system user.

2. **Data base management system** – main task of this system to securely store the data and order details.
   - **Data management** – this helps to store data.

3. **System management system** - this will handle all the tasks performed by the system.
   - **Credential validation system** - this will validate all the details entered by the user to process.
   - **Decision making & output management** – this part will handle all the decision making and the output

4. **Order management system** – this section will handle all the order related thing like order validation.
   - **Order validation management** – this will validate the order of a customer if the order is successfully accepted or not by the system.
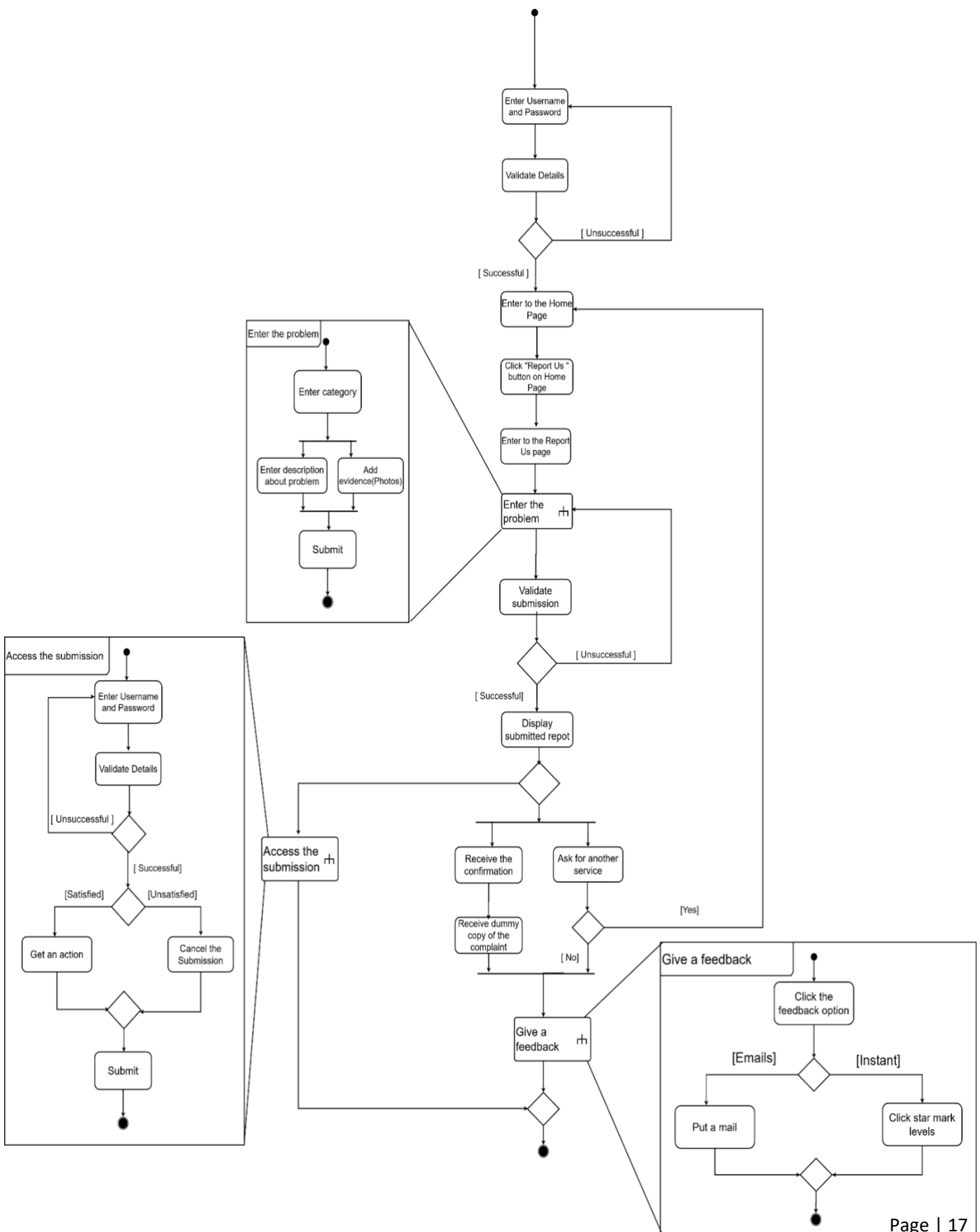
2. Activity Diagram with partitioning

User management	System operation management		Order managment system
Customer	Desison making & output system	Credential system	Order validation

Login

System validate details

[Invalid]

[Valid]

Visit store page

Select the item catogery

Search items

[search]   [browse]

Keyowrd search   browse items

[found]   [not found]

Display an similar item

[not satisfie]

[satisfy]

show the item

[satisfy]   [change of mind]

Add item to cart   View the cart

[done purchasing]

[need more items]

Check for promotions

Enter the promo code   [have]

[no]

Got to checkout

Cash on delivery   Pay now

Finalize the order

Send the order confirmation VIE E-MAIL

DILSHAN.O.A.P(IT21302480)

Student name	Registration number	Date	Signature
DILSHAN.O.A.P	IT21302480	02/05/2022	Praneeth

Part I

1.User Case Scenario

Number	OPC005	
Name	Report a problem	
Summary	User has a problem with our service or items.	
Priority	5	
Pre-conditions	User logging into the system	
Post-conditions	Users get the confirmation mail about the submitting problem	
Primary Actor	Registered User	
Trigger	The user needs to report a problem	
Main Scenario	**Step**	**Action**
	1	Display home page
	2	Log in to the system
	3	The system validates the details
	4	Display login successful
	5	Redirect to the homepage
	6	User clicks on the "Report Us" button the on home page
	7	Select the complaint type and fill in all the necessary details
	8	Press "Submit" button.
	9	Display "problem reported successfully"
	10	User gets the dummy copy of his/her complaint via email.
	11	Also get the confirmation massage "An assistant will be contact you regarding this issue"
Extensions	Step	Branching Action
	3a	If user enter incorrect login credentials, then system prompt to enter correct login credentials again.
	7a	If he/she enter an incorrect data system will notify the user and ask to enter the correct detail again
	10a	If he/she didn't get the mail, he/she can click the "resend the mail" button. then the system will force the mail to users email immediately.

2.Activity Diagram without partitioning
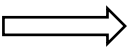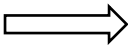
Sub Activity

Access the submission

- Enter Username and Password
- Validate Details
- [Unsuccessful]
- [Successful]
- [Satisfied]
- [Unsatisfied]
- Get an action
- Cancel the Submission
- Submit

Give a feedback

- Click the feedback option
- [Emails]
- [Instant]
- Put a mail
- Click star mark levels

Enter the problem

- Enter category
- Enter description about problem
- Add evidence(Photos)
- Submit
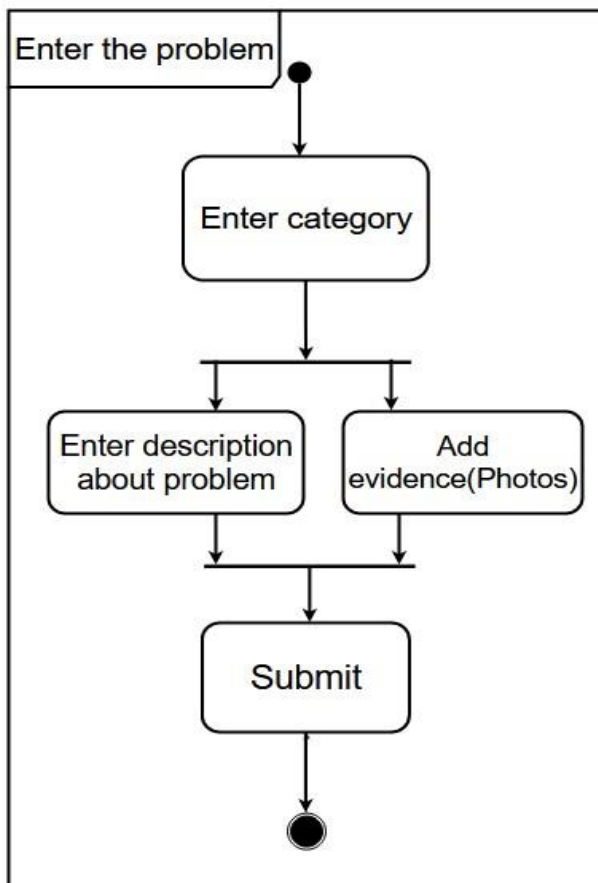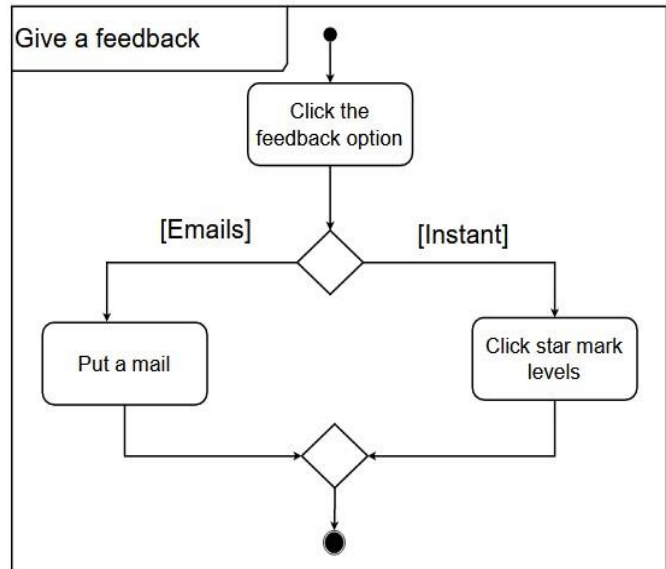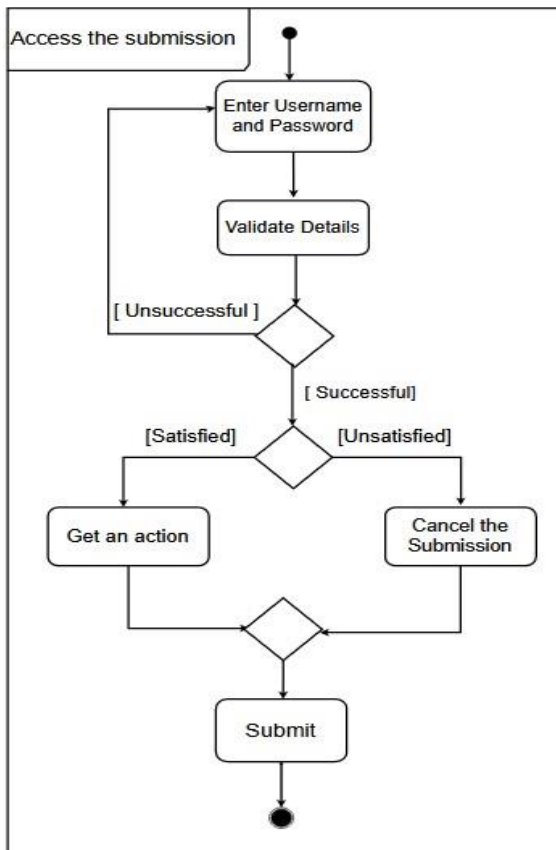
Part II

1.Sub System

Level 1   **Level 2**

User manager	⇒	Customer handler

Employee handler

Service manager	⇒	Interface handler

Generating reports handler

Feedback handler

System administration handler	⇒	System configuration handler

Data handling manager

Security manager

| Logic manager | → | Delivery handler |

Control manager	→	Notification handler
		Maintenance handler
		Navigation handler

Store manager	→	Oder handler
		Oder receiving handler
		Update status handler

Account manager	→	Accountant
		Online payment handler
		Bank payment handler
		Finance method handler
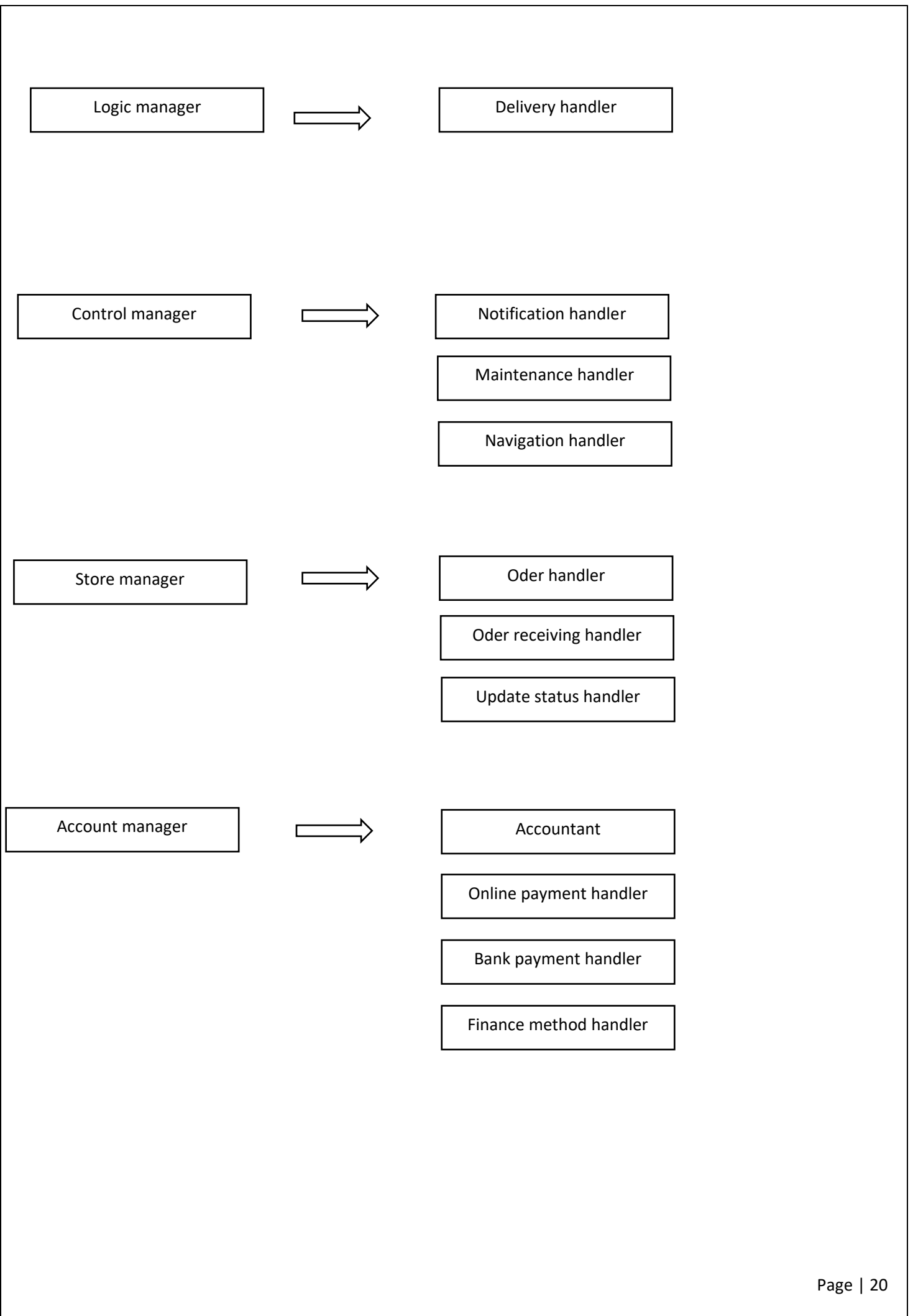
2. Activity Diagram with partitioning
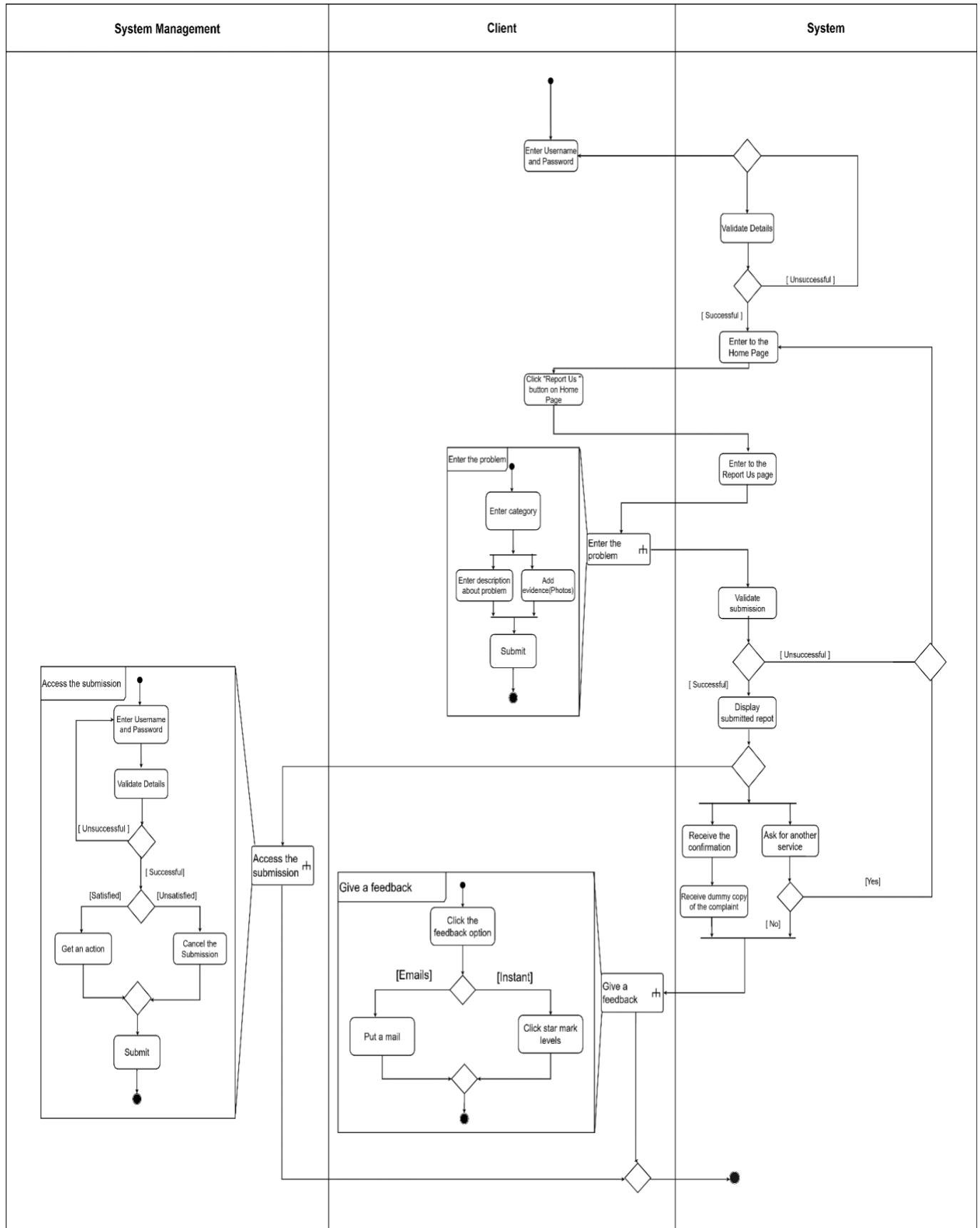
PADUKKA P.V.G.G (IT21301018)

Student name	Registration number	Date	signature
PADUKKA P.V.G.G	It21301018	02/05/2022	*Ginuri*

Part I

1.User Case Scenario

Number	OPC007	
Name	Generate report	
Summary	The accountant generates reports	
Priority	4	
Pre-conditions	Accountant must have a valid account and login to the database	
Post-conditions	A report is generated by the accountant.	
Primary Actor	Accountant	
Trigger	Reports are required to be generated	
Main Scenario	**Step**	**Action**
	1	Display home page
	2	Accountant selects the account type and Login as Accountant.
	3	Validation of login credentials of the accountant.
	4	Display login successful.
	5	Requests access to the database
	6	Gets access to the Database
	7	Accountant views updated details of the stocks and records transactions
	8	Accountant selects data that needs to be extracted
	9	Accountant requests data from Managers
	10	Managers process data

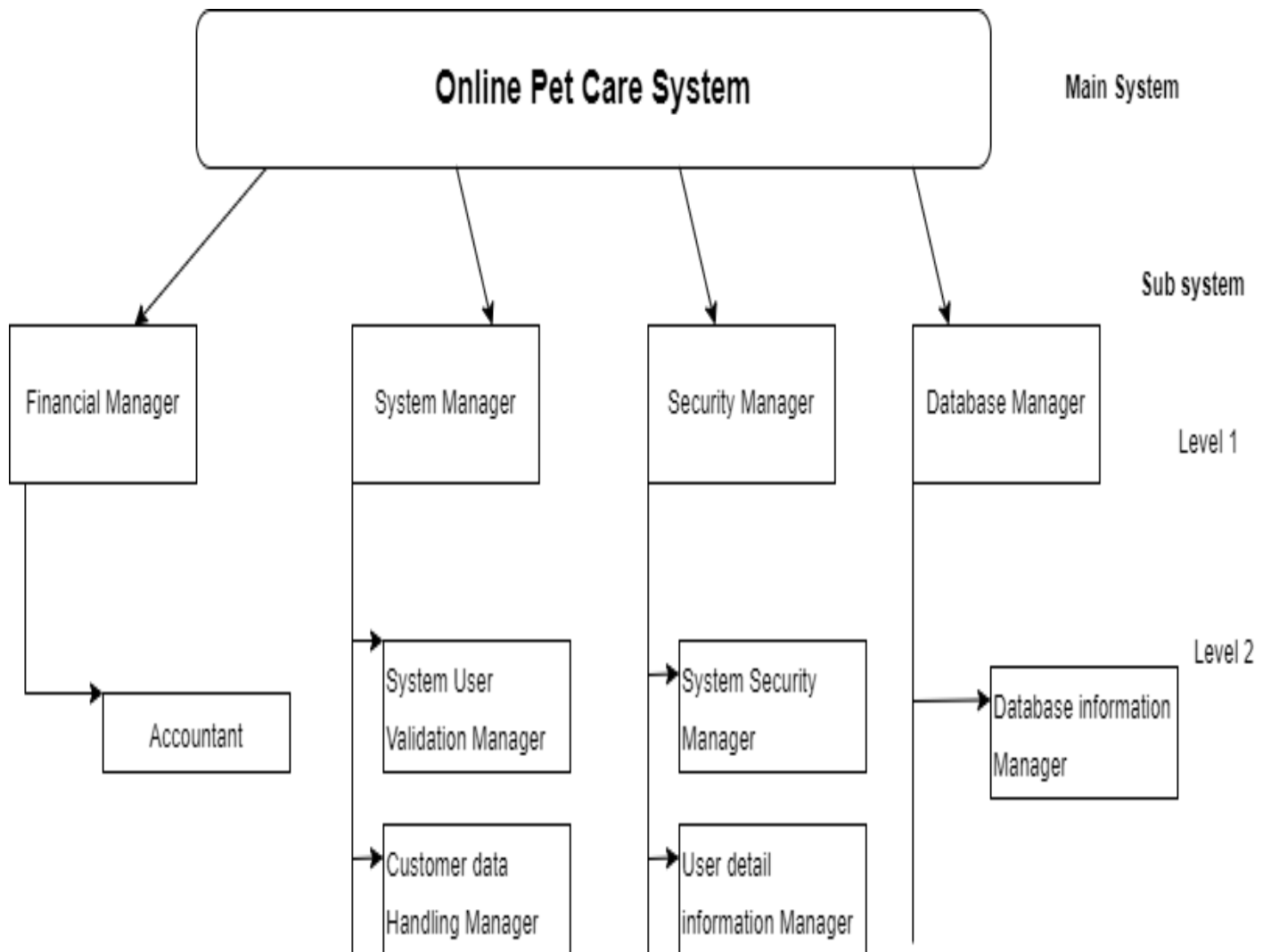|	11	Accountant rechecks data
	12	Accountant confirms and extract the data into an analytical tool
	13	System Generate reports
	14	System asks from user whether to display, print or save the report.
	15	User specifies a location to save the report and displays the report and print the report.
	16	System saves, prints or displays the report generated.
	17	System prompts user to generate a new report if necessary or to end.
	18	Accountant logs out of the system.
Extensions	**Step**	**Branching Action**
	3a	If the user credentials are invalid 3.a.1 – system generate an error message
	4a	If the system says "Login unsuccessful" System provides a new prompt box to re-enter valid log-in details
	13a	If system fails to generate reports user can regenerate the report or change the file type.

2.Activity Diagram without partitioning

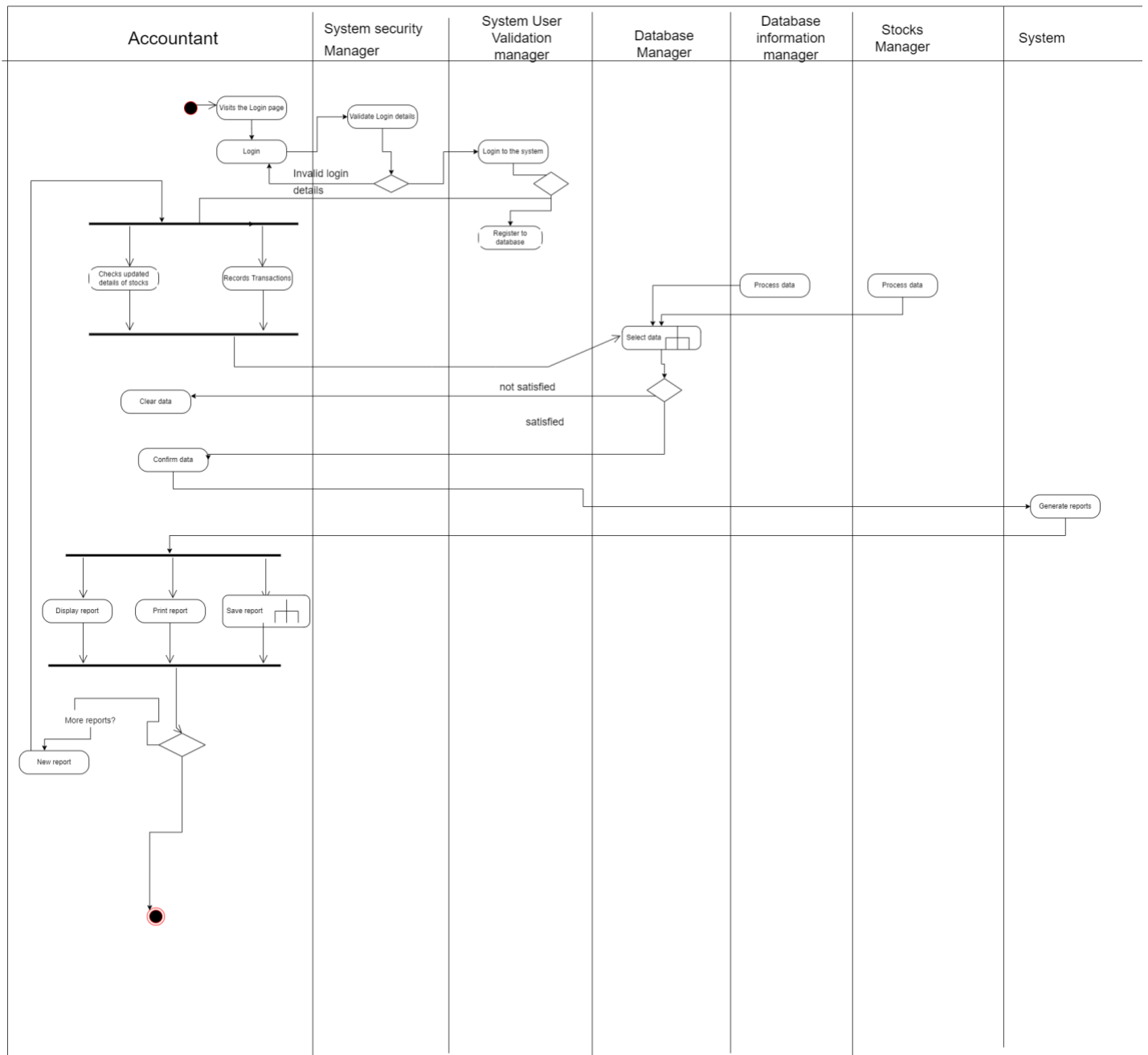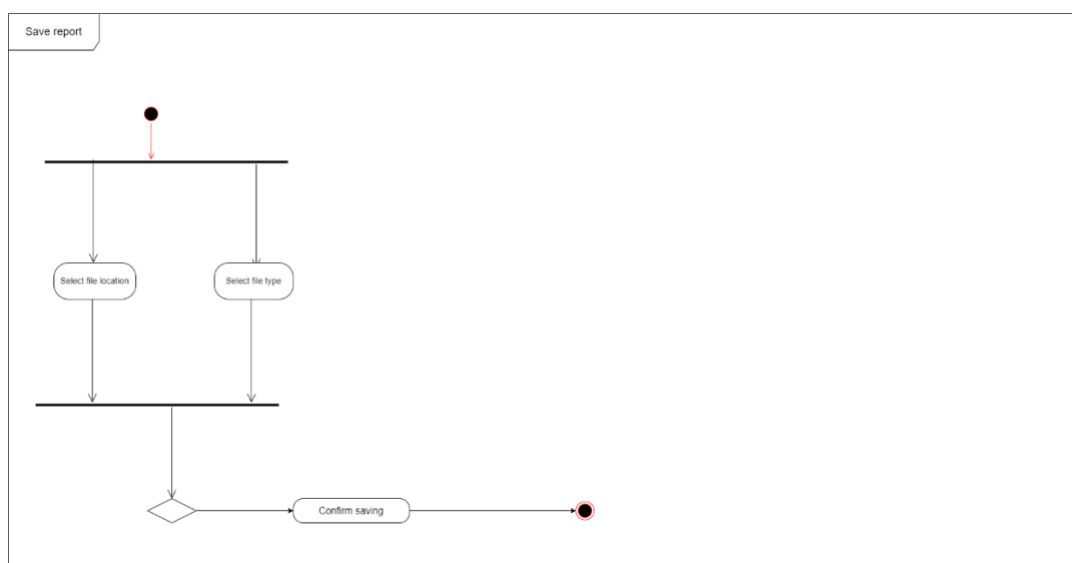Visits the Login page

Login

Valid login credentials

Try again ← Else ← ◇

else → Register to database

◇

Have access to database

Checks updated details of stocks

Records Transactions

Select Data

◇ → Clear data

satisfied

Confirm data

Generate reports

Display report

Print report

Save report

more reports ?

Make new report ←

else
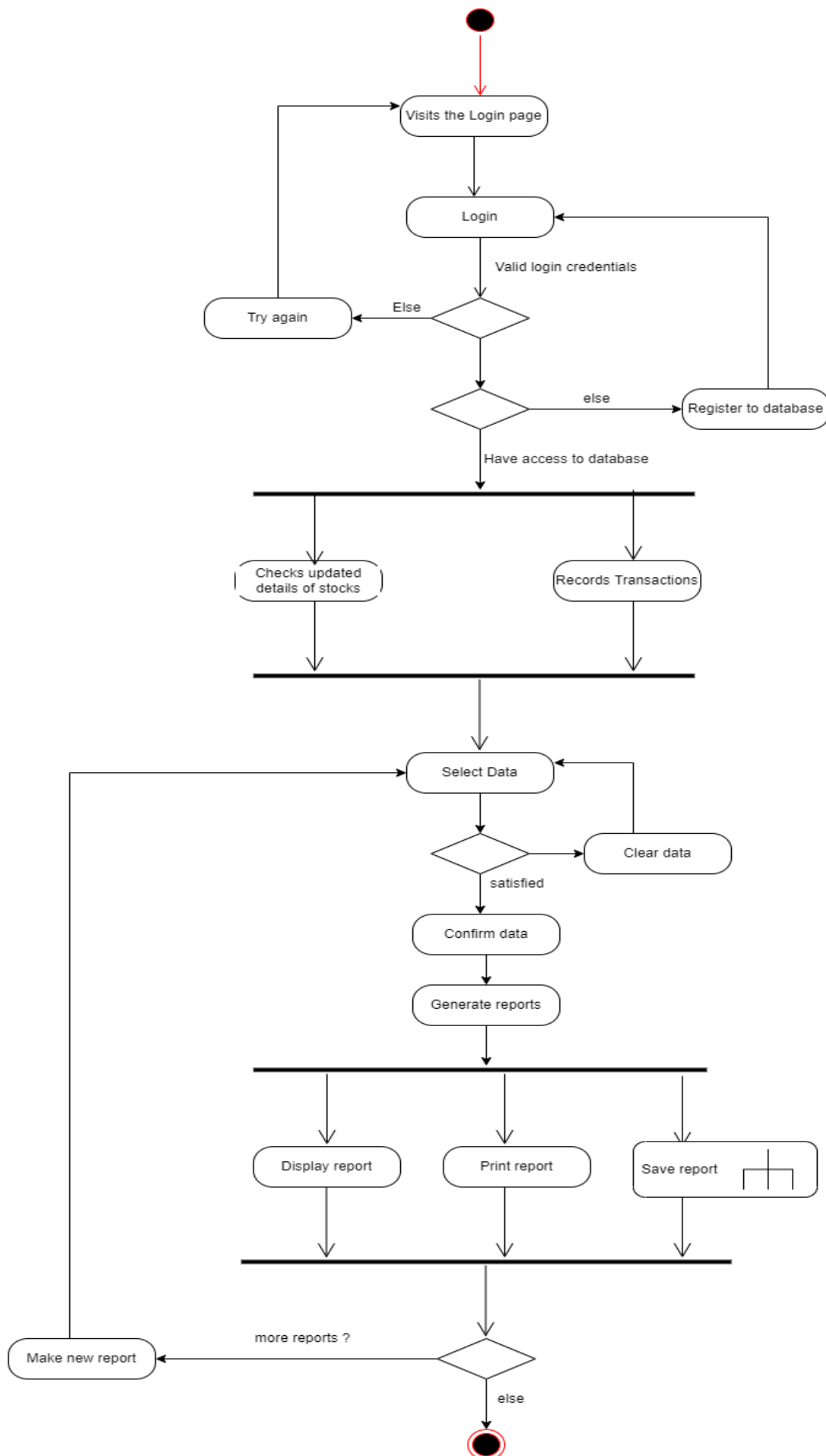
Sub Activities

Part II

1.Sub System

2. Activity Diagram with partitioning

Accountant	System security Manager	System User Validation manager	Database Manager	Database information manager	Stocks Manager	System
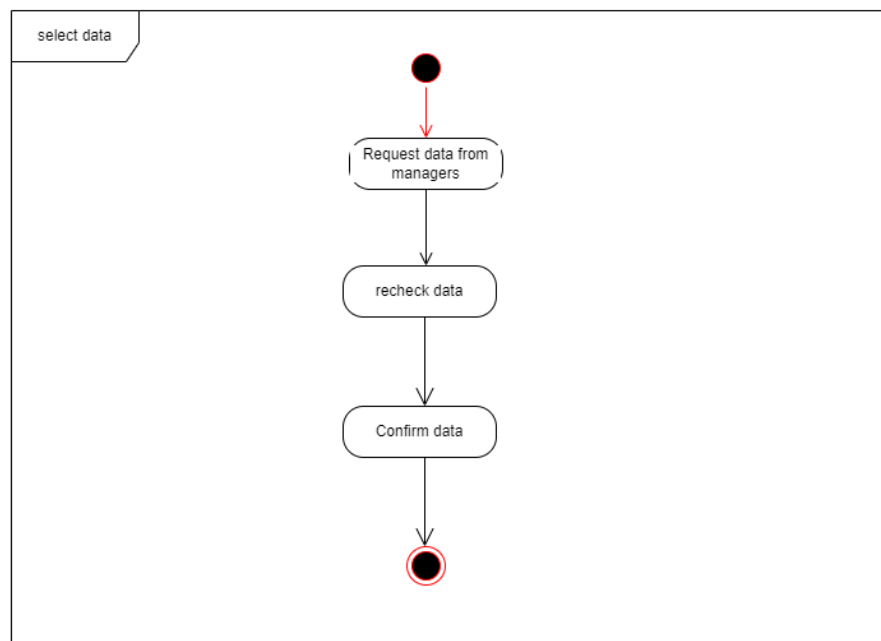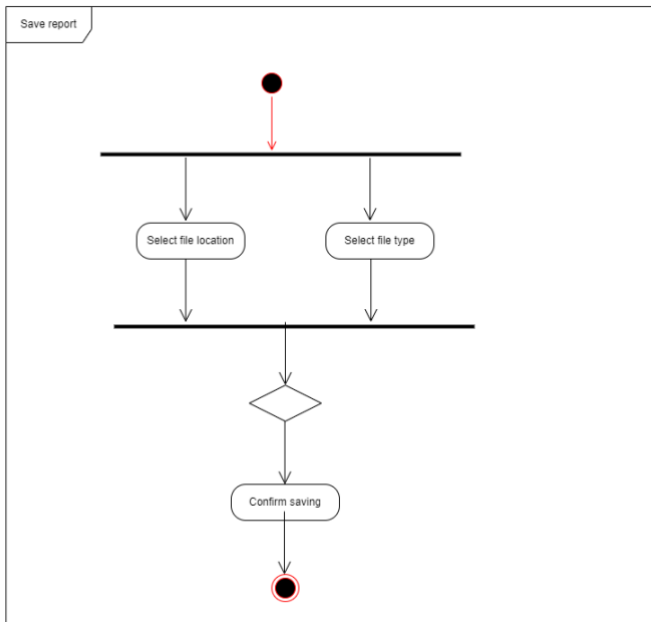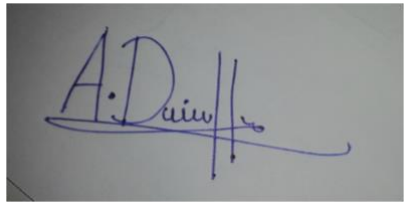
Sub Activities with partitioning

select data

Accountant	Database Info Manager	Stocks Manager	Database Manager

- Request data from Managers
- Process data
- Process data
- Select data
- Accept data
- recheck data
- Confirm data

Save report

- Select file location
- Select file type
- Confirm saving
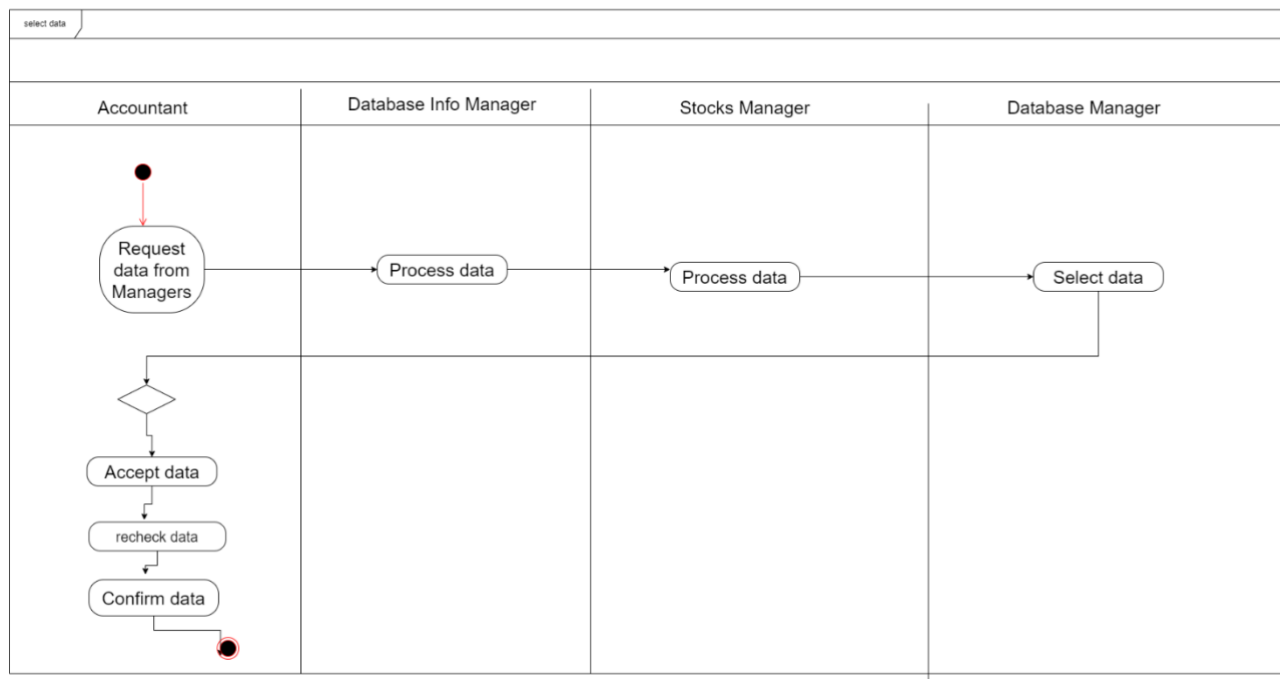
Dilhara W.M.A.

Student Name	Student Registration Number	Date	Signature
Dilhara W.M.A.	IT21299452	02/05/2022	

Part I

1.User Case Scenario

Number	OPC003	
Name	Create Account	
Summary	User creates new user account and Login	
Priority	4	
Pre-conditions	User is on the homepage or any other page off the online pet care service website.	
Post-conditions	A new user account is created and logged in as a registered user	
Primary Actor	Unregistered user	
Trigger	User has decided to sign up for a new account	
Main Scenario	**Step**	**Action**
	1	User clicks on 'Sign Up' button on webpage
	2	System redirects user to registration page
	3	User enters following information as required on the registration page • First Name • Last Name • Email Address • Phone Number • Address • City
		• State • Zip Code • Pet Name • Breed • Color • Height • Weight • New Password • Confirm Password
	4	User accepts terms and conditions
	5	User clicks on "Create Account" button

	6	User is redirected to a new page where the following message is displayed. "Thank you for joining us. A confirmation email has been sent to the email address you provided. Please click on the link in the email to activate your account"
	7	System sends confirmation email to user's email address.
	8	User opens confirmation email and clicks on the activation link
	9	User is redirected to new page. The following message is displayed. "Congratulations! Your account has been activated successfully."
	10	User Login to the system as a Registered User
	11	User is redirected to the Home Page
Extensions	**Step**	**Branching Action**
	3a	User doesn't fill in required fields. System highlights the blank fields in red and displays the following message. "Please fill in the required fields to continue registration."
	3b	User enters incorrect email address. System displays the following message. "This email address is invalid. Please enter a valid email address."
	3c	User enters password of incorrect length. System displays the following message. "The password you entered is too short/long. Please enter a password between 8-12 characters.
	4a	User doesn't accept terms and conditions. System displays the following message. "Please accept the terms and conditions to continue registration."
	8a	User has not received the email. User must go back to the website and click on "Didn't receive email yet? Click here to resend email."

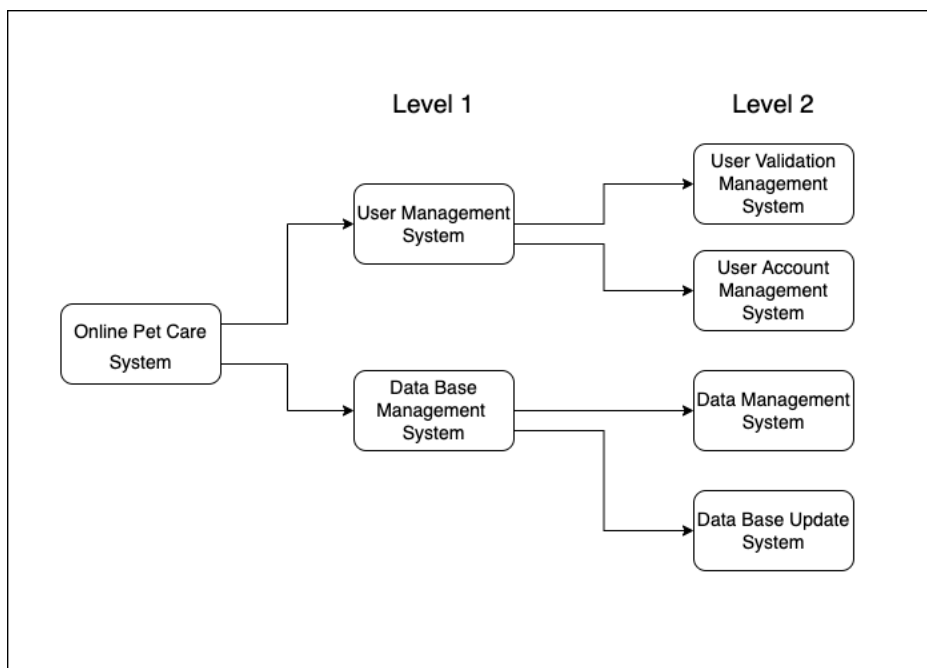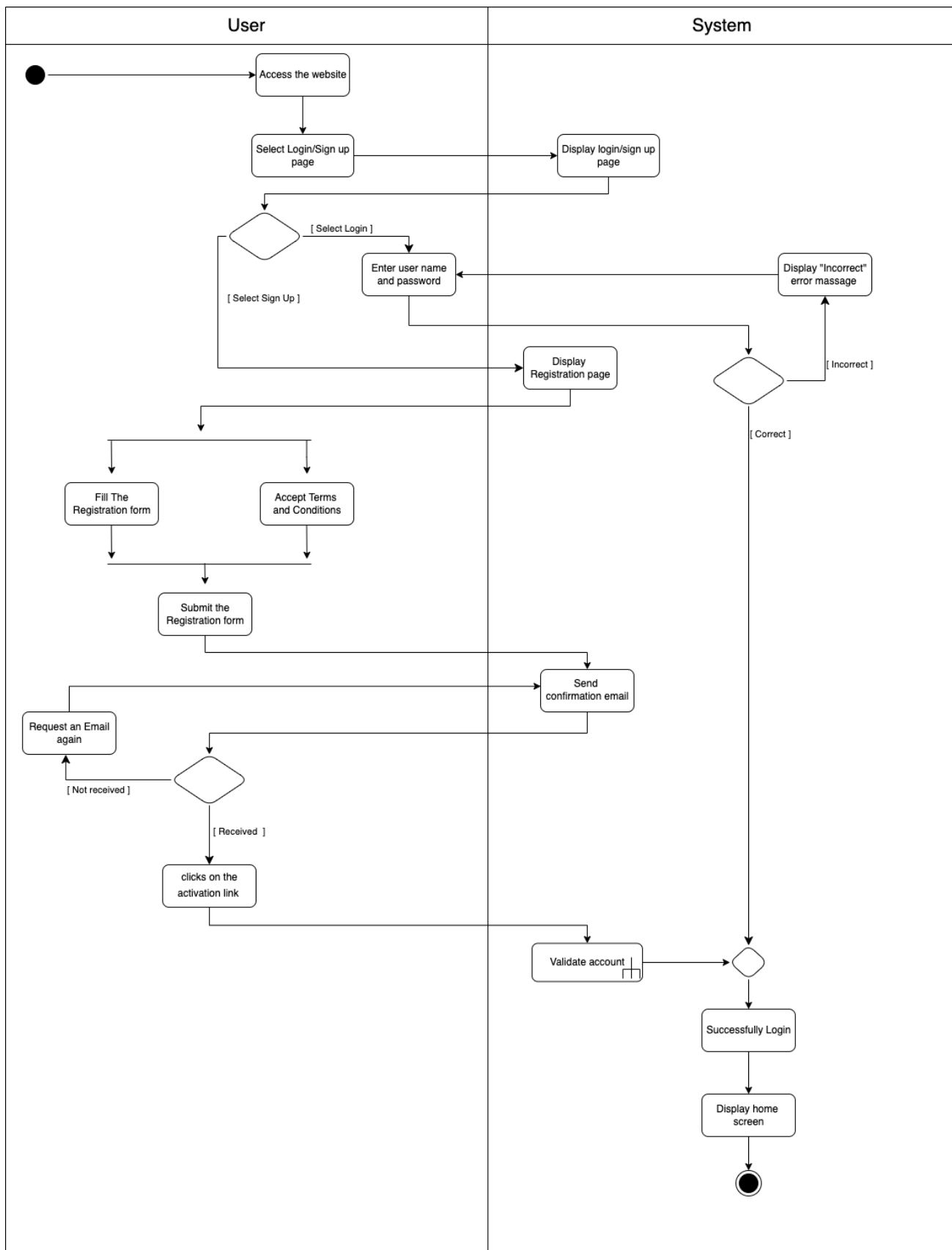# 2.Activity Diagram without partitioning
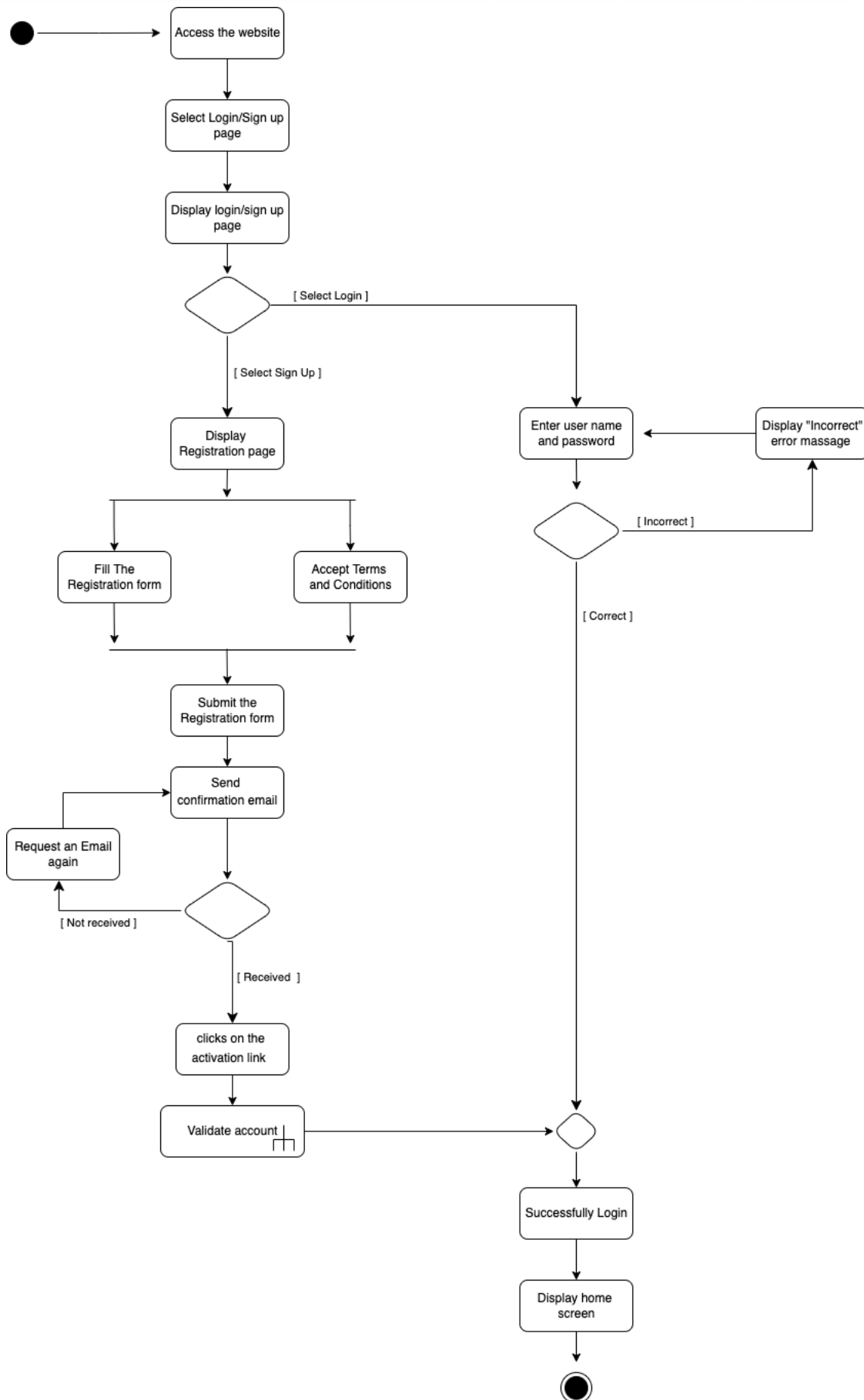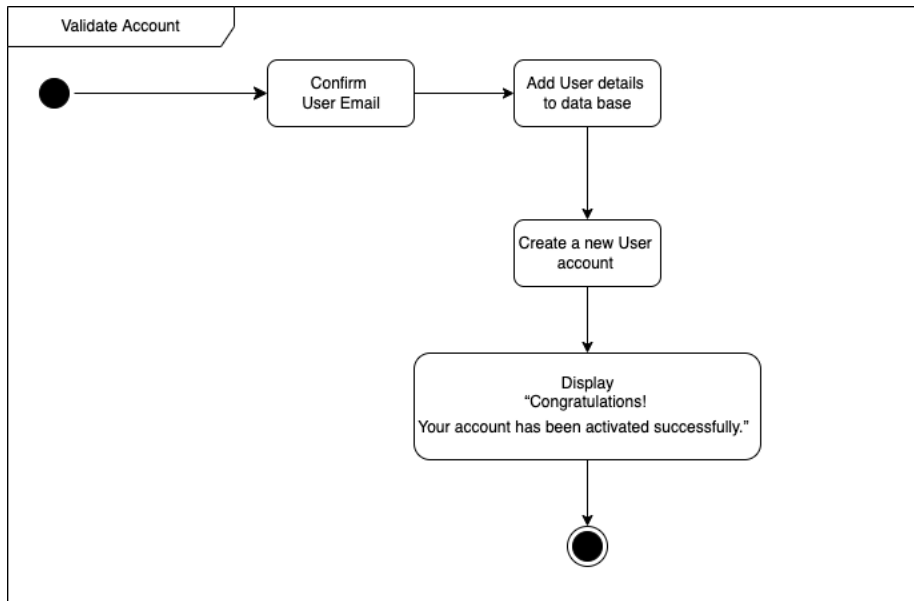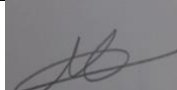
Sub Activity

Part II

1.Sub System

2. Activity Diagram with partitioning

DE SILVA L. M. C

Student Name	Student Registration Number	Date	Signature
De Silva L.M.C	IT21301704	02/05/22	

Part I

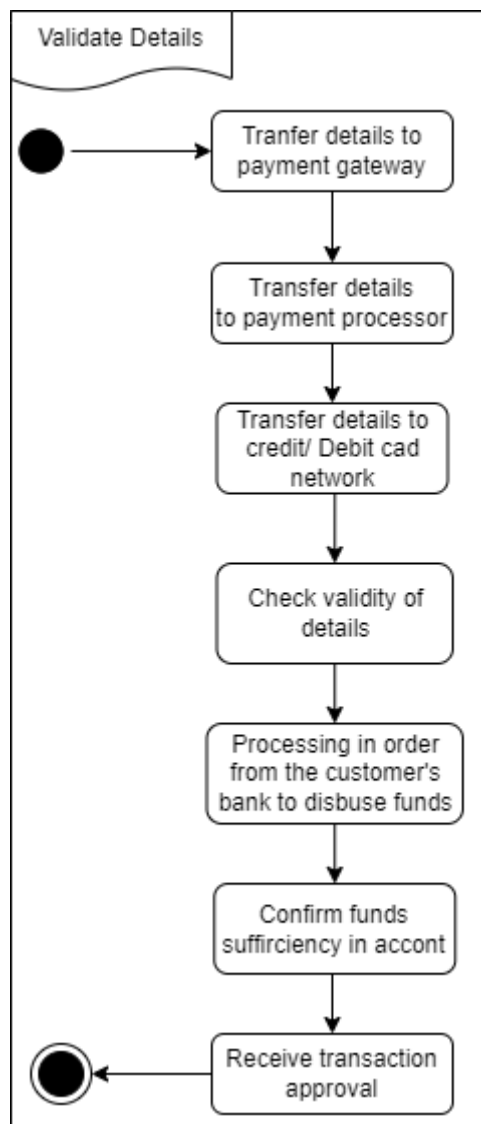# 1.User Case Scenario

Number	A01PC004
Name	Making Online Payment
Summary	User purchase an item in store or services
Priority	4
Pre-conditions	User is on the payment page of selected service of store item
Post-conditions	Online payments is made for service and store items.
Primary Actor	Registered User
Trigger	User has decided to pay online for store items.

Main Scenario	Step	Action
	1	User Clicks on "Purchase Icon"
	2	System redirects user to payment page
	3	User is prompted to select payment method from the following list • Pay with credit card/ debit card • Pay with PayPal
	4	User selects "Pay with credit card/ debit card" option
	5	User is redirected to card details page
	6	User selects "Mastercard" from the following option • MasterCard • Visa User enter this following details as required on the webpage • Name on card • Card Number • CVVV • Expiry month and year
	7	User is redirected to a new page where the following message is displayed "Please enter the last 4 digits of your phone number to confirm your identity before sending OTP (one time password)"

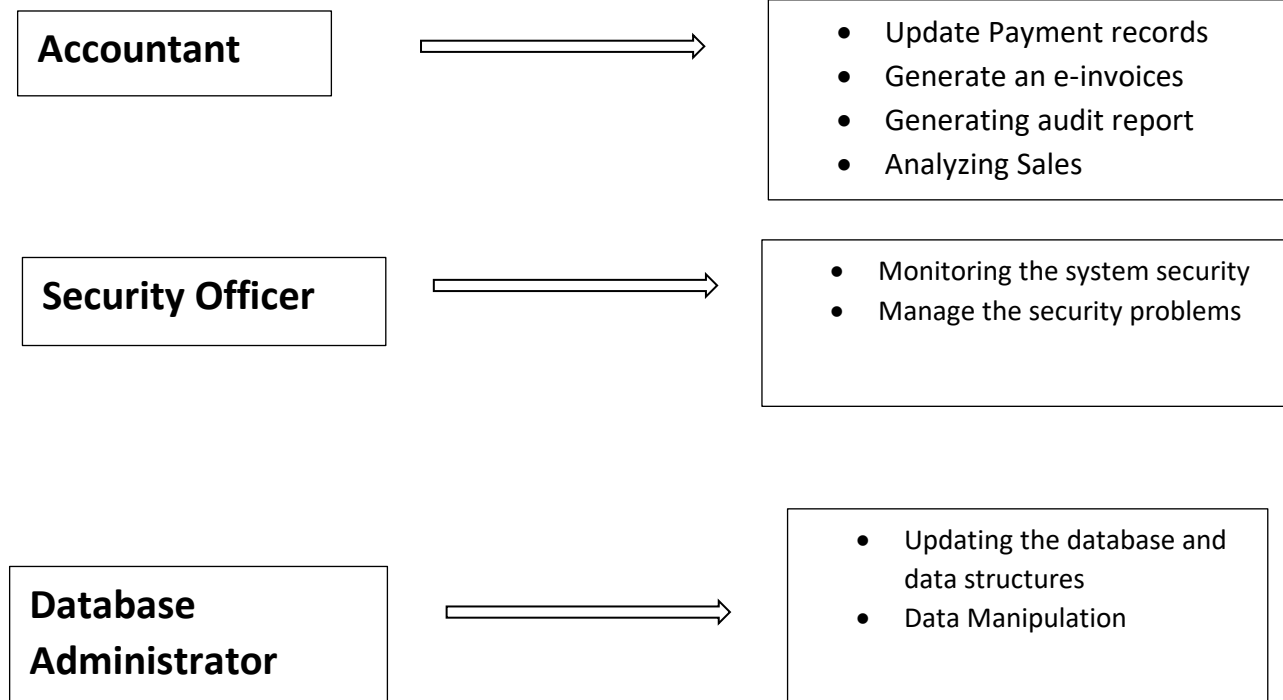|		User enter last 4 digits of phone number
	8	User is redirected to new page where the following message is displayed.
	9	"If xxxx matches the last 4 digits of the phone number linked to your card, we will send you an OTP. Please enter the OTP you received." User receives OTP and enters OTP as required.
		The webpage displays reservation details and total amount to be paid and prompts user to confirm payment. User confirms payment.
	10	User is redirected to a new page where the following message is displayed. "Your transaction has been completed successfully. You will receive the reservation details and payment receipt via e-mail. Thank you."
	11	User receives e-mail containing reservation details and payment receipt
Extensions	**Step**	**Branching Action**
	6a	User doesn't fill in required fields. System highlights the blank fields in red and displays the following message. "Please fill in the required fields to continue transaction."
	6b	User enters incorrect card number. System displays the following message. "This credit card/debit card is invalid. Please enter a card number.
	8a	User has entered the correct digits but doesn't receive OTP. User clicks on "Didn't get OTP? Click here to resend OTP"
	8b	The OTP has expired due to user taking too long to use it. User is redirected to new page and the following message is displayed. "Your OTP has expired. Please request a new OTP here."

2.Activity Diagram without partitioning

Sub Activity

Part II

1.Sub System

| **Accountant** | ⟹ | • Update Payment records
• Generate an e-invoices
• Generating audit report
• Analyzing Sales |

| **Security Officer** | ⟹ | • Monitoring the system security
• Manage the security problems |

| **Database Administrator** | ⟹ | • Updating the database and data structures
• Data Manipulation |

2. Activity Diagram with partitioning