



# PROPOSAL PRESENTATION

Application for Collecting & Managing Non Biodegradable Waste

SCS 2202 - Group Project 1  
CS Group - 01

# Our Group Members

*Project supervisor - Mr. Asanka Sayakkara*

*Project co supervisor - Ms. Sanjani Gunathilaka*



**D.S.K. Weerakoon**

2021 /CS/ 209



**G.A. Pramuditha**

2021 /CS/ 141



**K. D. Dinushika**

2021 /CS/ 053



**P.G.N. Maduwanthi**

2021 /CS/ 115

# 01 Problem Definition

- ◆ Non Biodegradable Waste Disposal
- ◆ Persist in the environment for hundred years
- ◆ Huge impact on Wild-life, Ecosystems and Humans





# 02 Introducing



# Introducing ECO PLUS



## What is Eco Plus?

- ◆ Web based Application
- ◆ Manage non-biodegradable Waste Collection
- ◆ Gives Users their Waste Values as Eco Credits which can be Claimed On Supermarkets

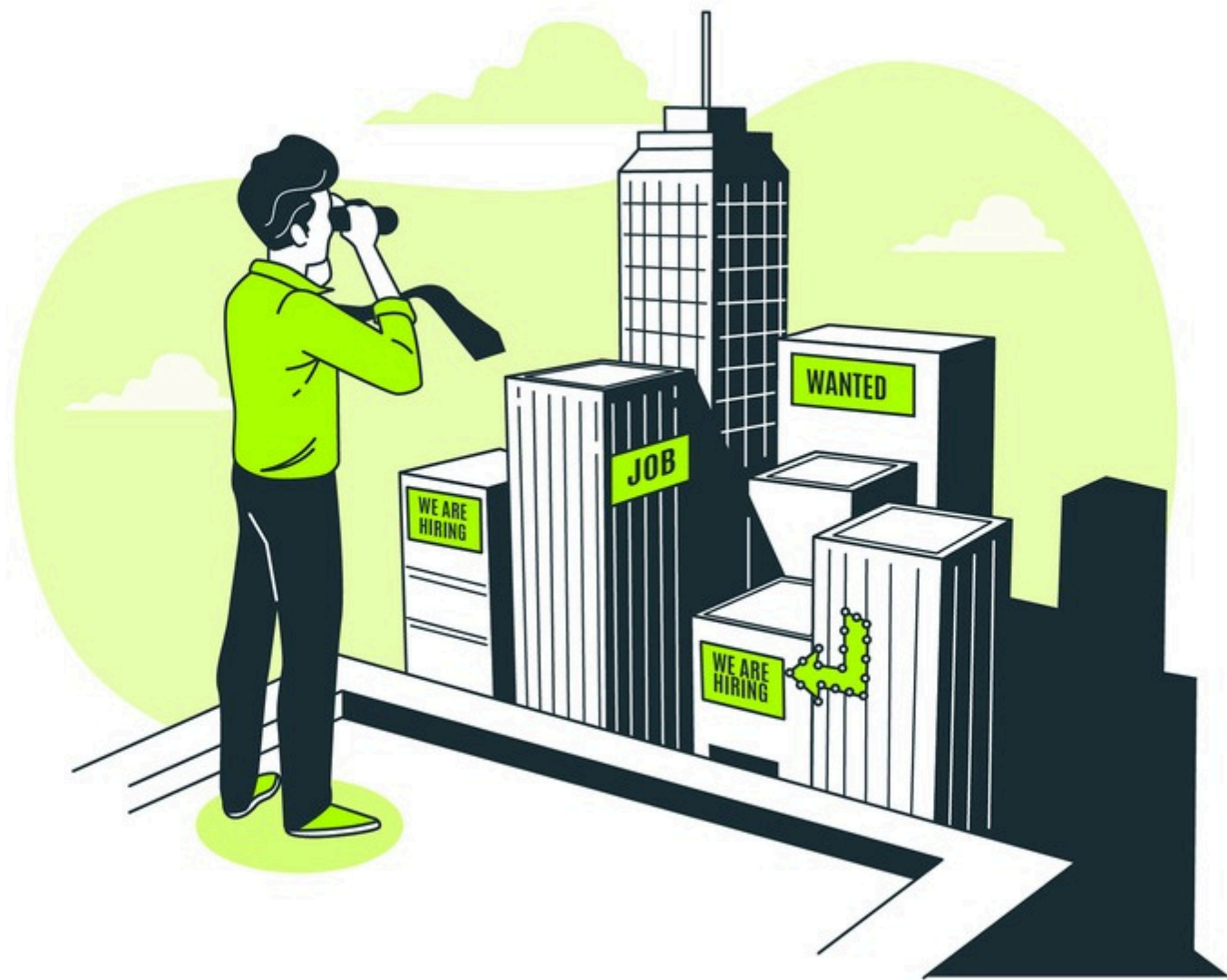
# 03 Project Goals



- ◆ **Reduce Environmental Pollution**
- ◆ **Non-Biodegradable Waste Collection**
- ◆ **Promote Sustainable Shopping**
- ◆ **Create an User-friendly Web Application**



# 04 Project Scope



# In-Scope

- ◆ **Online Waste Collection Requests**
- ◆ **Garbage Collection Management**
- ◆ **Booking of Clean up Events**
- ◆ **User Registration and Login**
- ◆ **Registration and Management of Staff**
- ◆ **Update and Track Customer Credits**
- ◆ **Offer Discounts for Customers**





# Out - Scope

- ◆ **Recycling Process of Collected Non-Degradable Garbage**
- ◆ **Managing the Financial Section of the Company**
- ◆ **Billing Process of the Supermarkets**
- ◆ **Tracking the Collector Visits on the Field**
- ◆ **Collector Assistant is not a User of the System**



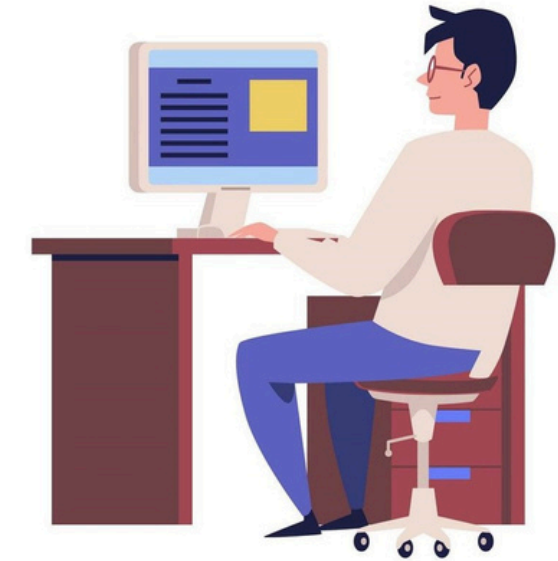
# 05 Identified Users



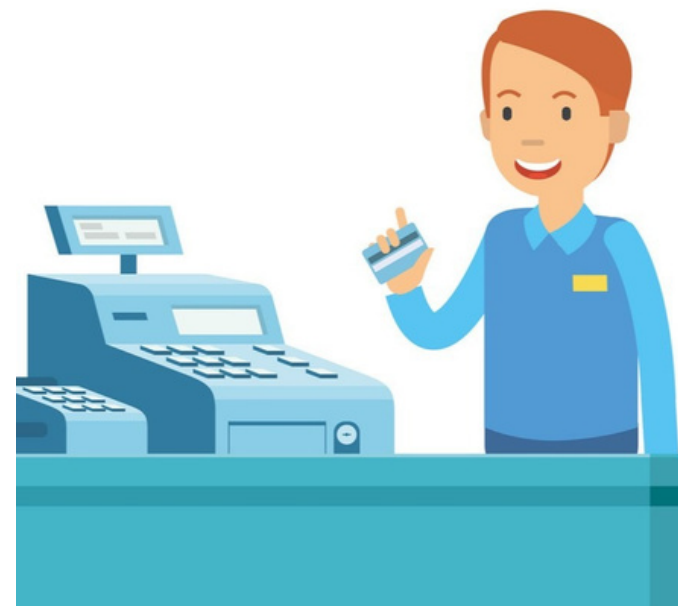
**CUSTOMER**



**COLLECTOR**



**REGIONAL CENTER MANAGER**

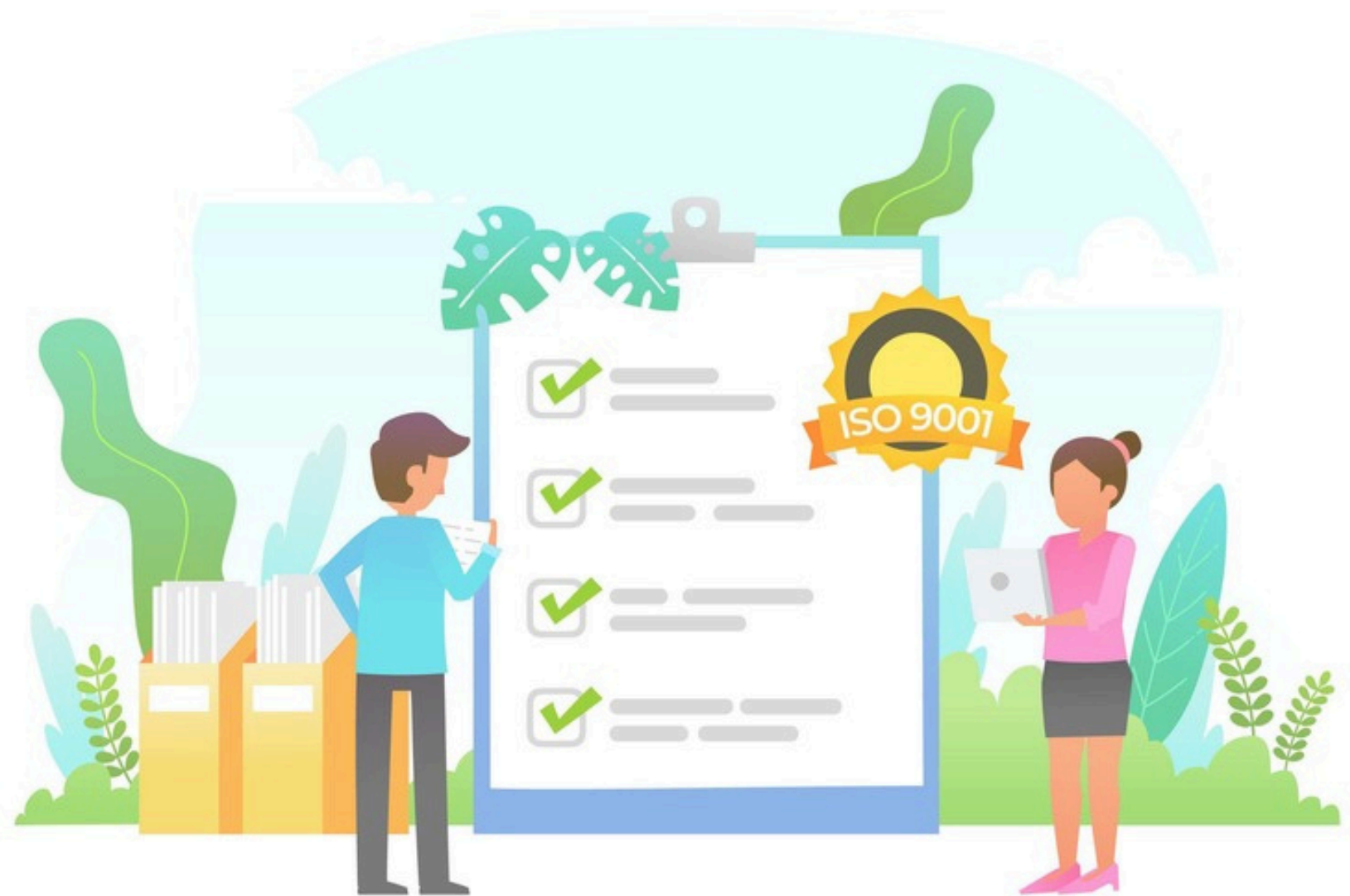


**CREDIT DISCOUNTS AGENT**



**ADMIN**

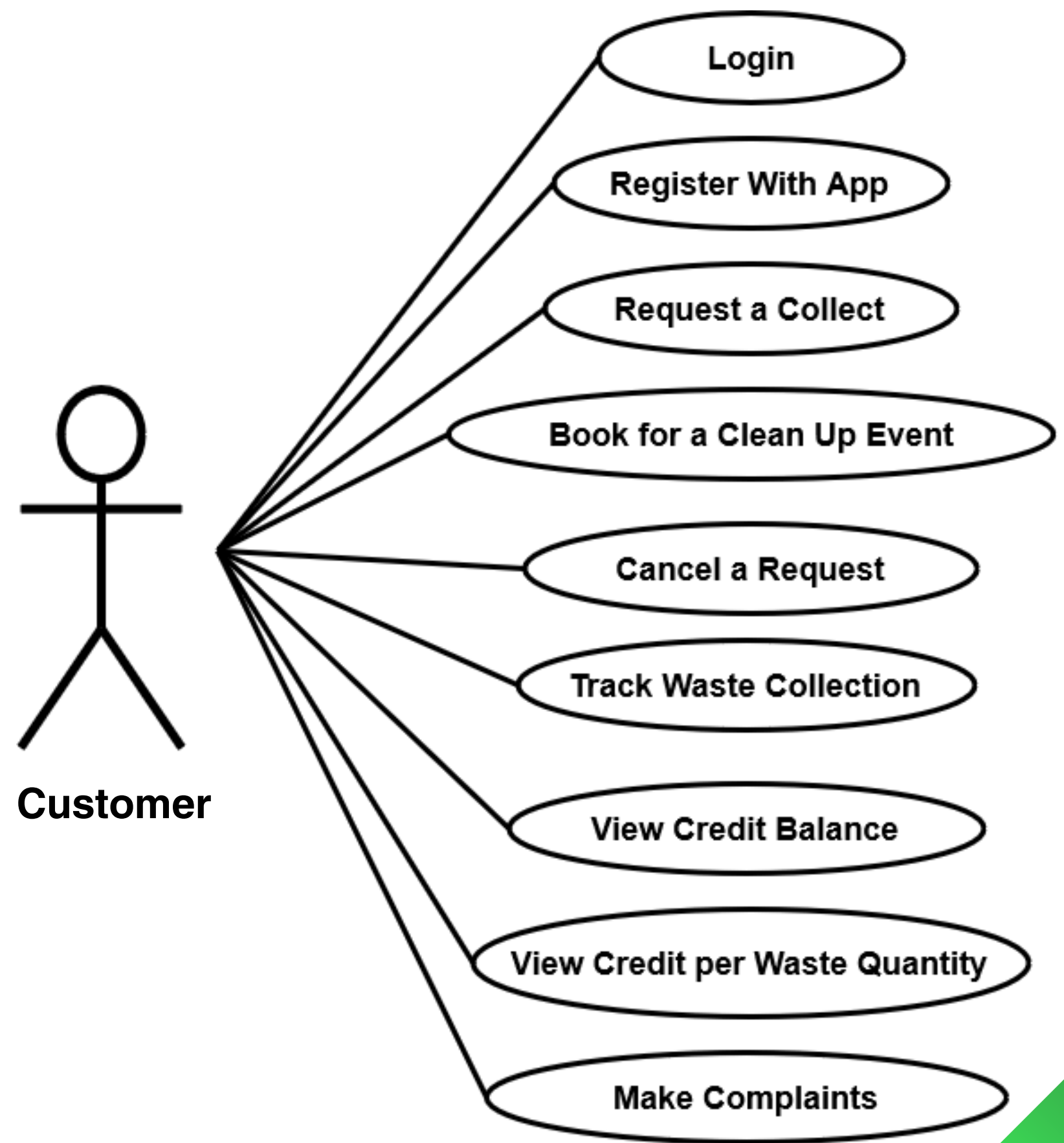
# 06 Functional Requirements





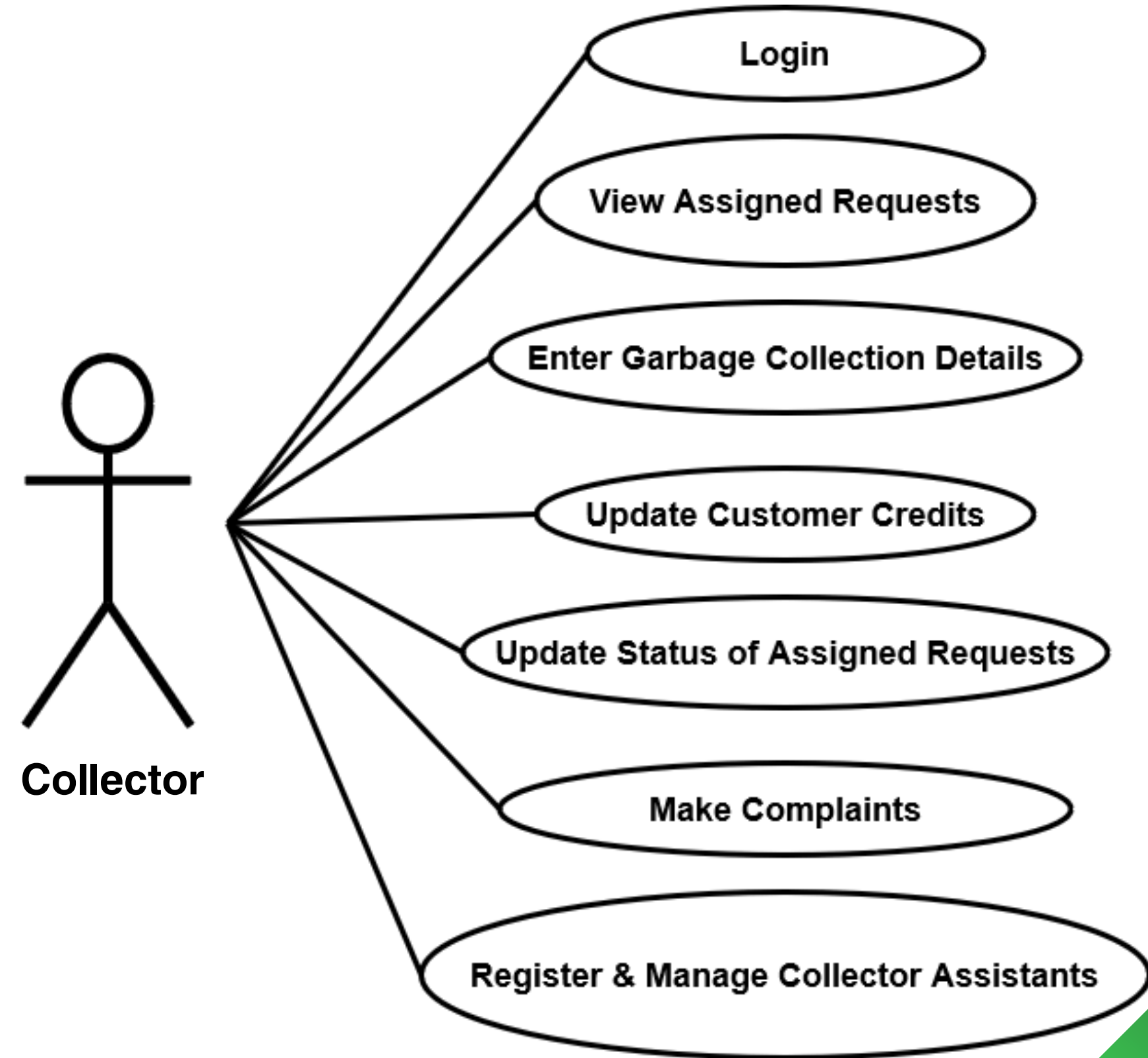
# Customer

- ◆ Register, Login
- ◆ Request Garbage Collection Service
- ◆ Book for a Clean Up Events
- ◆ Cancel Garbage Collection Request
- ◆ View Waste Collection History
- ◆ View Credit Balance
- ◆ View Credit per Waste Quantity
- ◆ Make Complaints



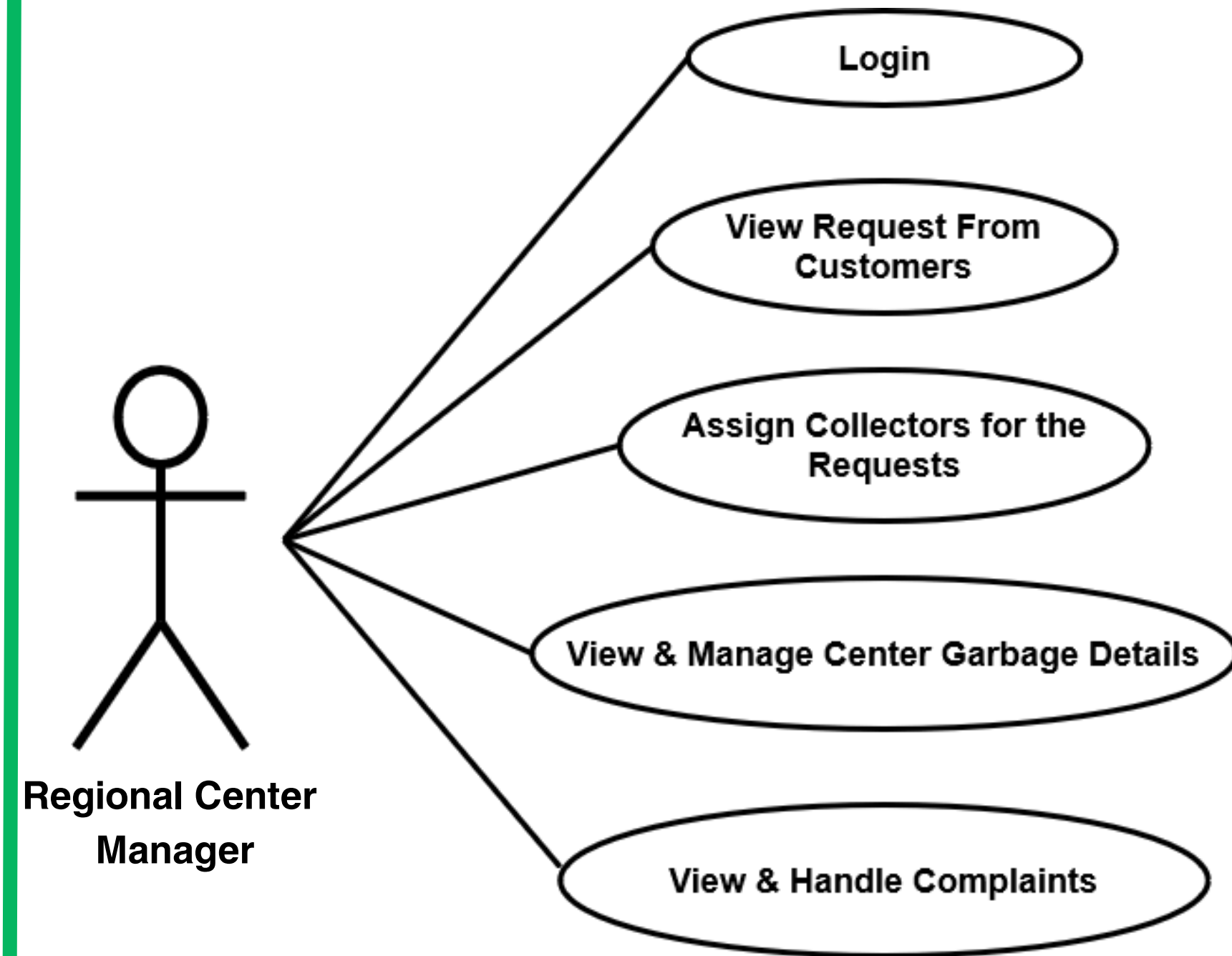
# Collector

- ◆ Login
- ◆ View Assigned Customer Requests
- ◆ Enter Garbage Collection Details
- ◆ Update Customer Credits
- ◆ Update Status of Assigned Requests
- ◆ Make Complaints
- ◆ Register & Manage Collector Assistants



# Regional Center Manager

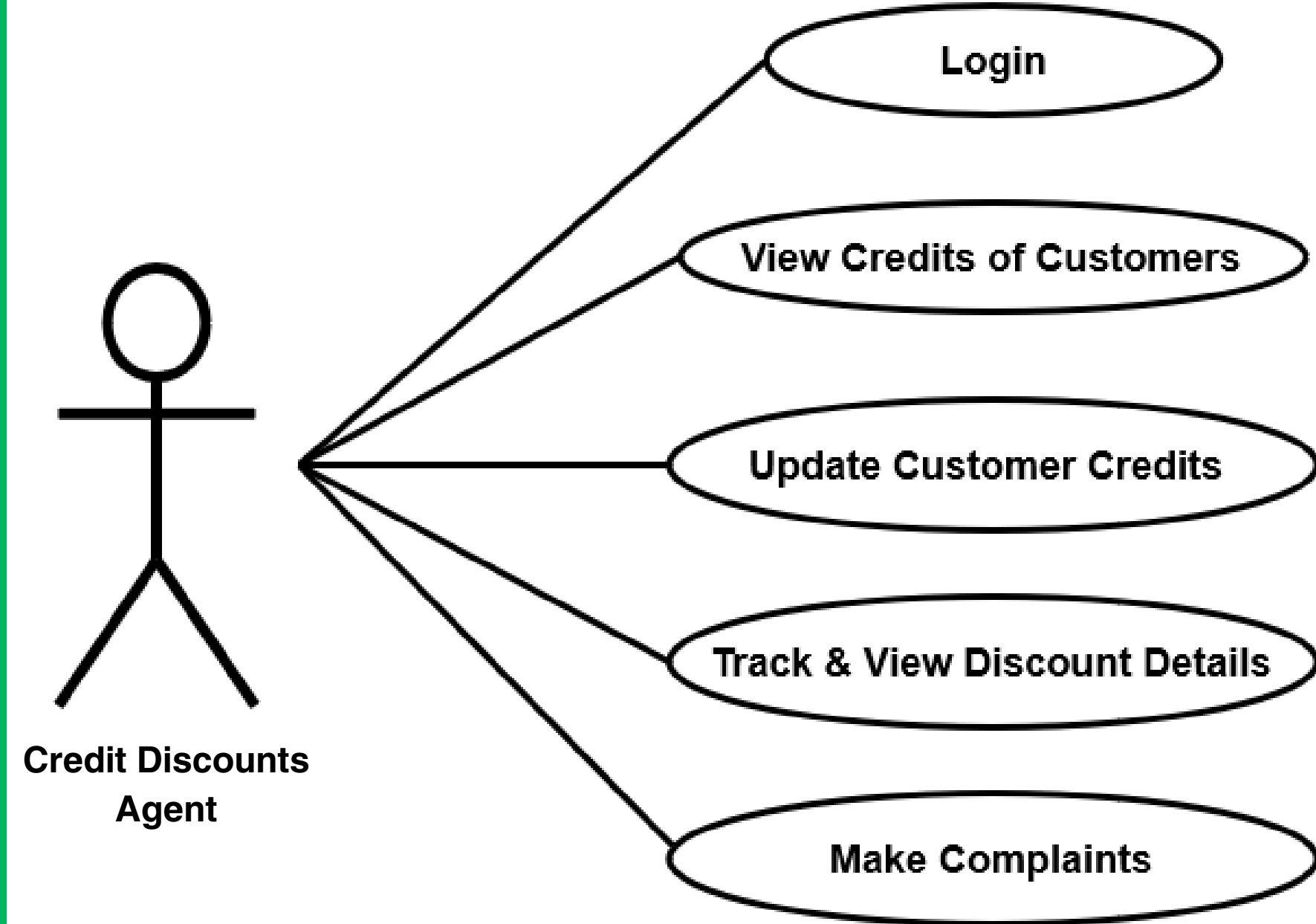
- ◆ Login
- ◆ View Request From Customers
- ◆ Assign Collectors for the Requests
- ◆ View & Manage Center Garbage Details
- ◆ View & Handle Complaints





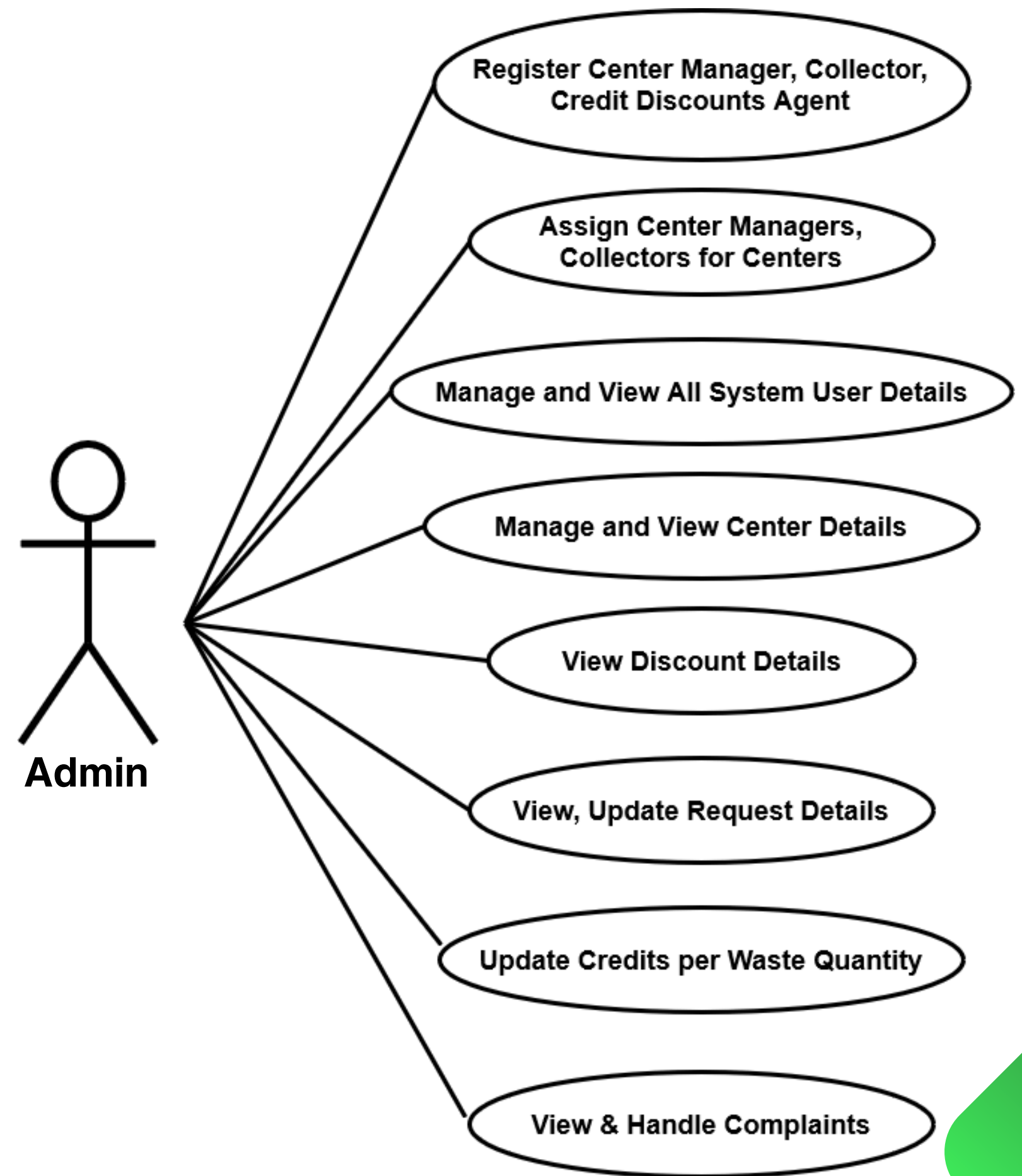
# Credit Discounts Agent

- ◆ Login
- ◆ Update Customer Credits by Giving Discounts
- ◆ View Credits of Customers
- ◆ Track & View Discount Details
- ◆ Make Complaints



# Admin

- ◆ Register Center Manager, Collector, Credit Discounts Agent
- ◆ Assign Center Managers, Collectors for Centers
- ◆ Manage and View All System User Details
- ◆ Manage and View Center Details
- ◆ View Discount Details
- ◆ View, Update Request Details
- ◆ Update Credits per Waste Quantity
- ◆ View & Handle Complaints



# 07 Quality Attributes



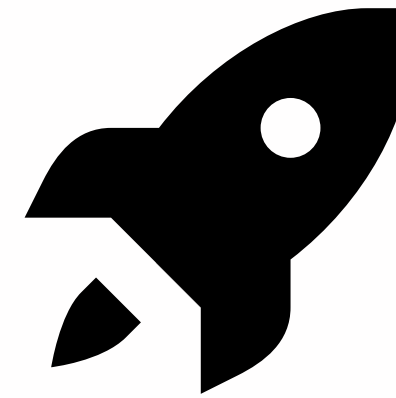


# Quality Attributes



## Usability

Simple and user-friendly interface to navigate and access waste details easily



## Performance

Response to user activities with minimal lag in displaying waste collection status and credits.

# Quality Attributes



## Security

Secure login process and protect user details



## Reliability

Ensure that waste collection process is carried out without any delays and failures



## Availability

100% active except during maintenance or crashes

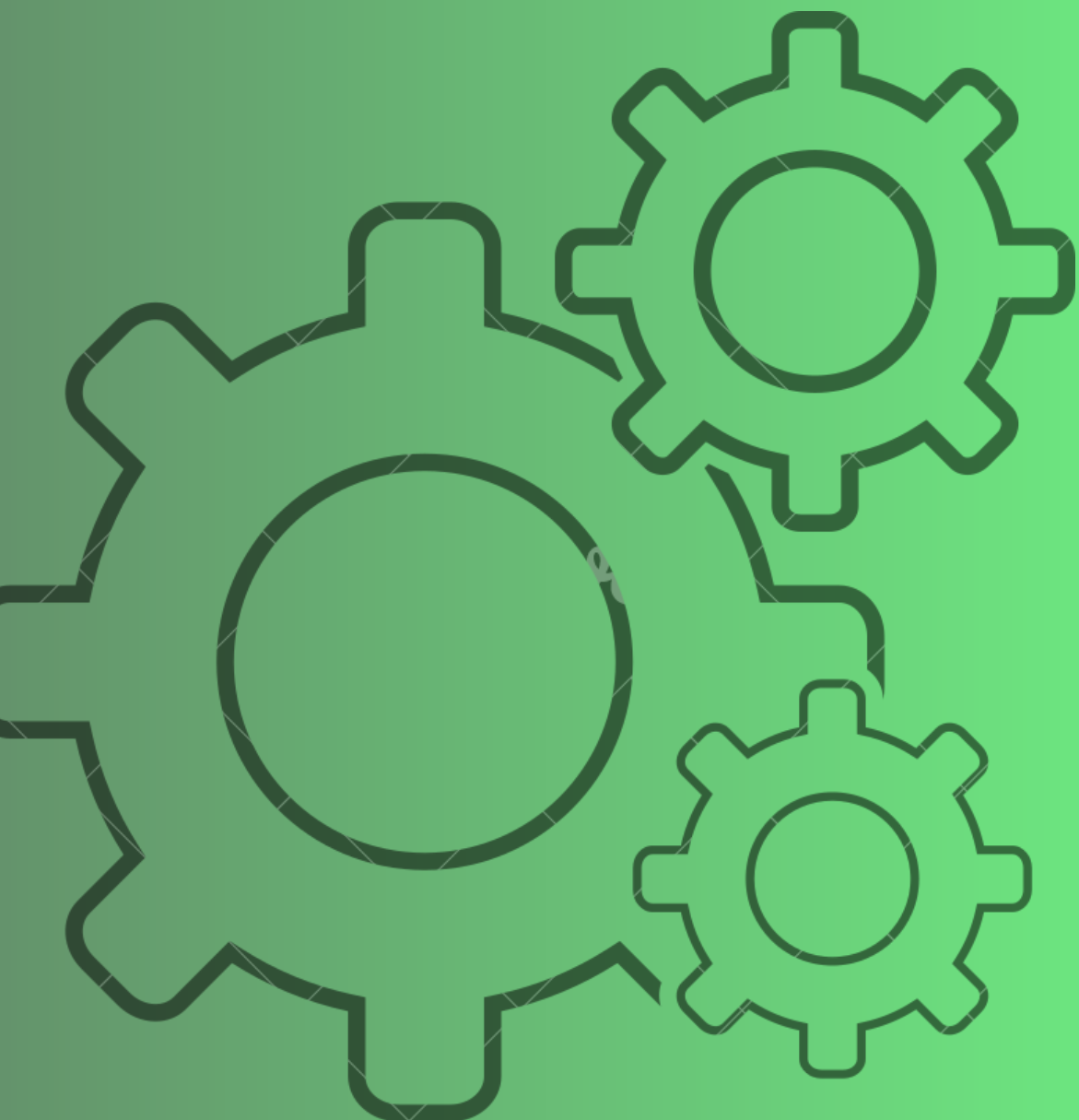


# 08 Feasibility Study









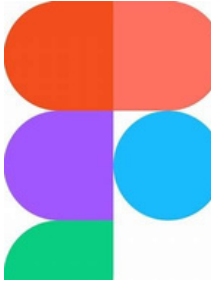
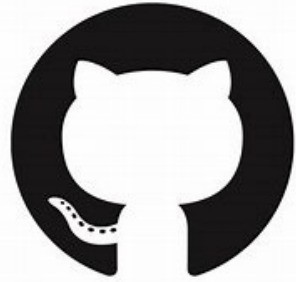









# Technical Feasibility

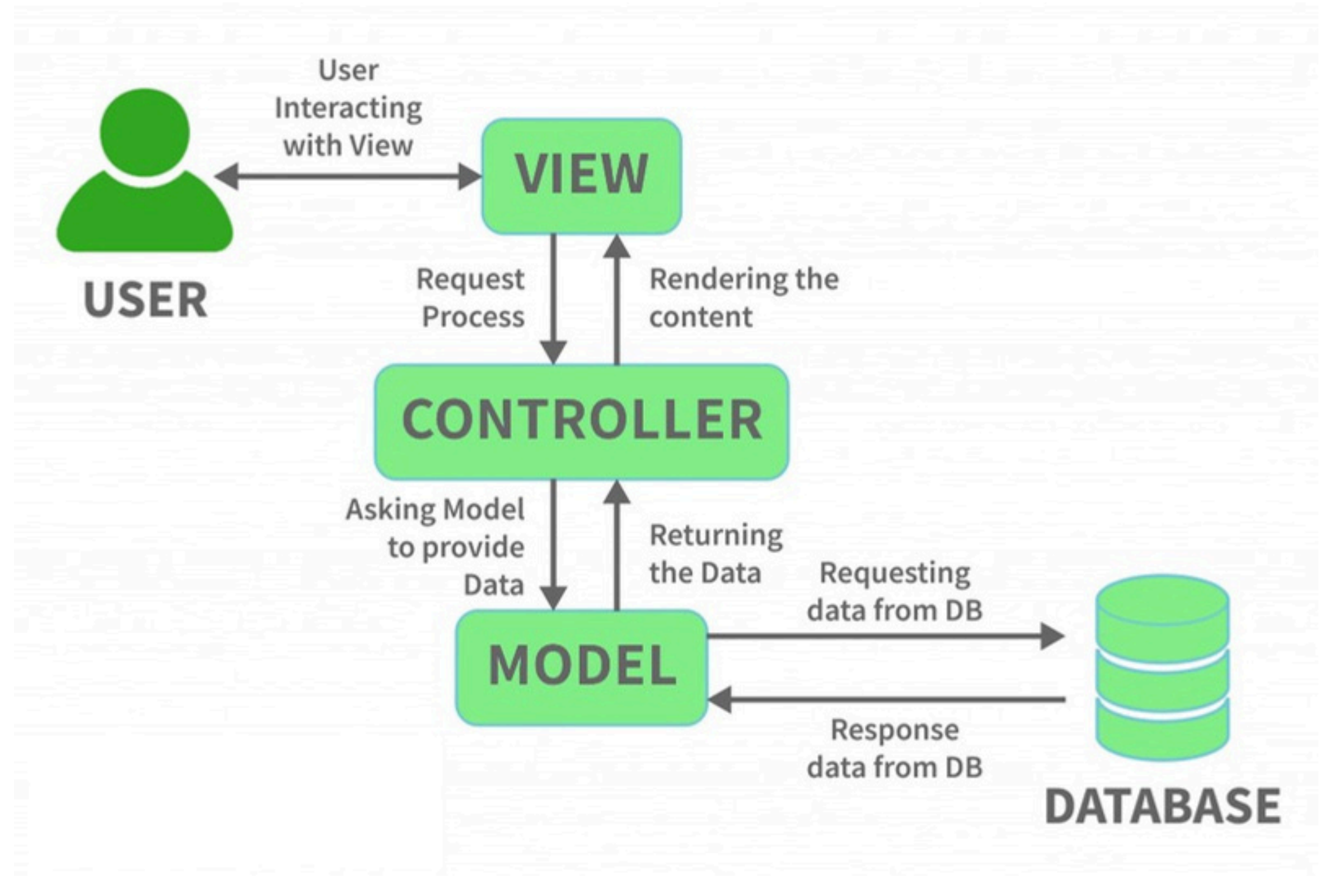


- ◆ Use Open Source Software
- ◆ Have many Online Resources
- ◆ Easy to Use and Learn those Technologies within the given Time

<div>Frontend</div> <div></div>	<div>Backend</div> <div></div>	<div>Collabaration</div> <div></div>	<div>Storage</div> <div></div>
<div>UI/UX Prototyping</div> <div></div>	<div>Version Control</div> <div></div>	<div>Diagrams &amp; Modeling</div> <div></div>	<div>Documentation</div> <div></div>
<div>Project Management</div> <div></div>	<div>API</div> <div></div>	<div>Text Editors</div> <div></div>	

# Software Architecture

## MVC Architecture



## Operational Feasibility



Users with

- ◆ Basic Technical Knowledge

- ◆ Basic English Knowledge

- ☑ Can Easily Connect with Application

- ◆ Fully Responsive Web Design



# Economical Feasibility

- ◆ Use of Open Source Technologies & Tools
- ◆ No Development Cost
- ◆ Cost-effective

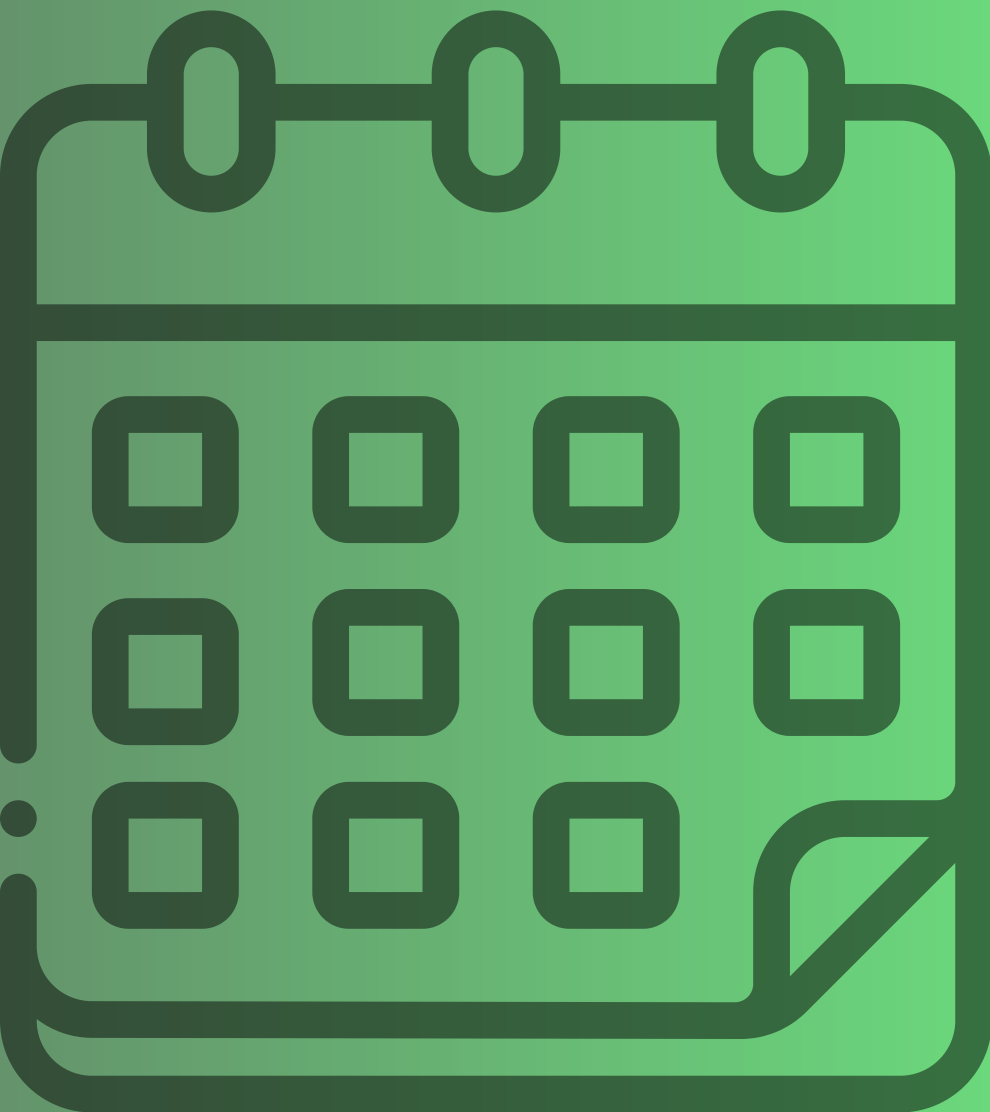


## Legal Feasibility and Ethical Feasibility



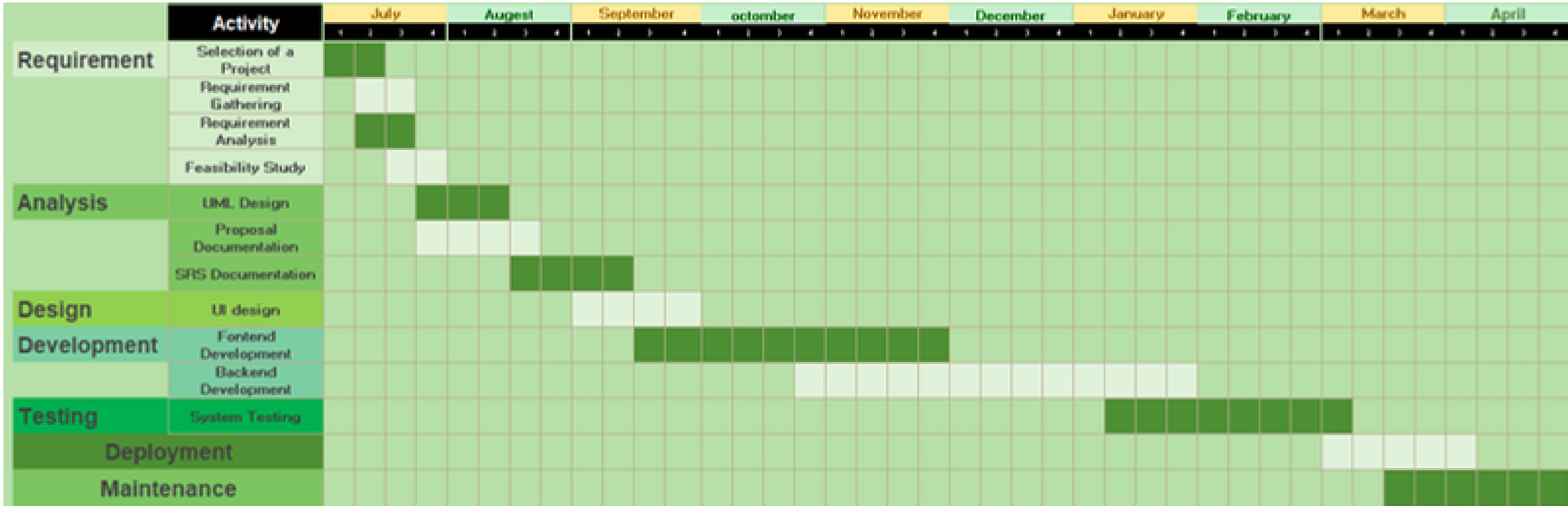
- ◆ User Data Will be Secured
- ◆ User Privacy Will be Protected
- ◆ No Copyright Issues
- ◆ Passwords Will be Hashed
- ◆ Will not be Violated any Legal Act

## Schedule Feasibility



- ◆ Each Member will Work on 5 Hours for a week
- ◆ Doable within 10 months
- ◆ Guaranteed On-Time Delivery by Sticking into the Project Timeline

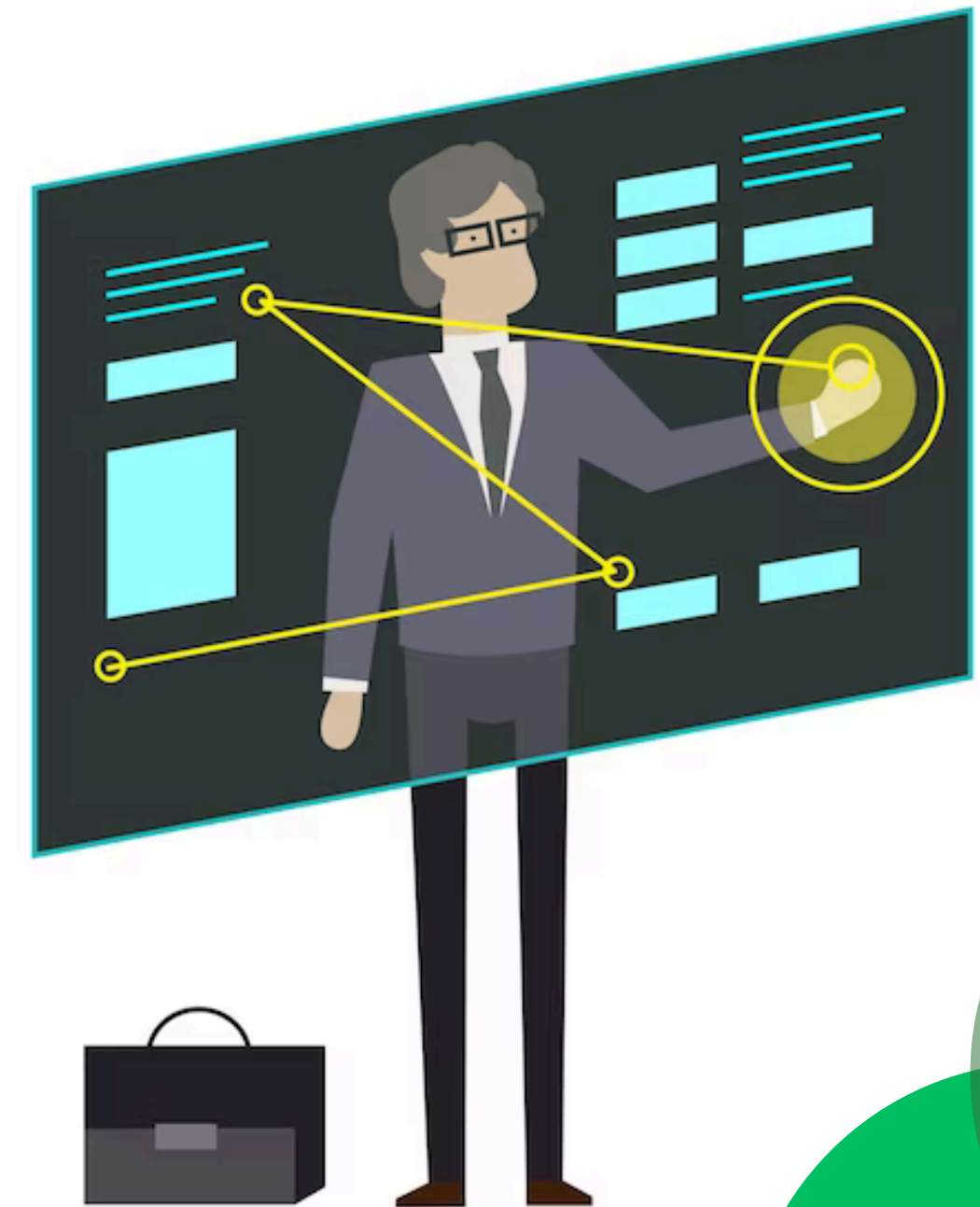
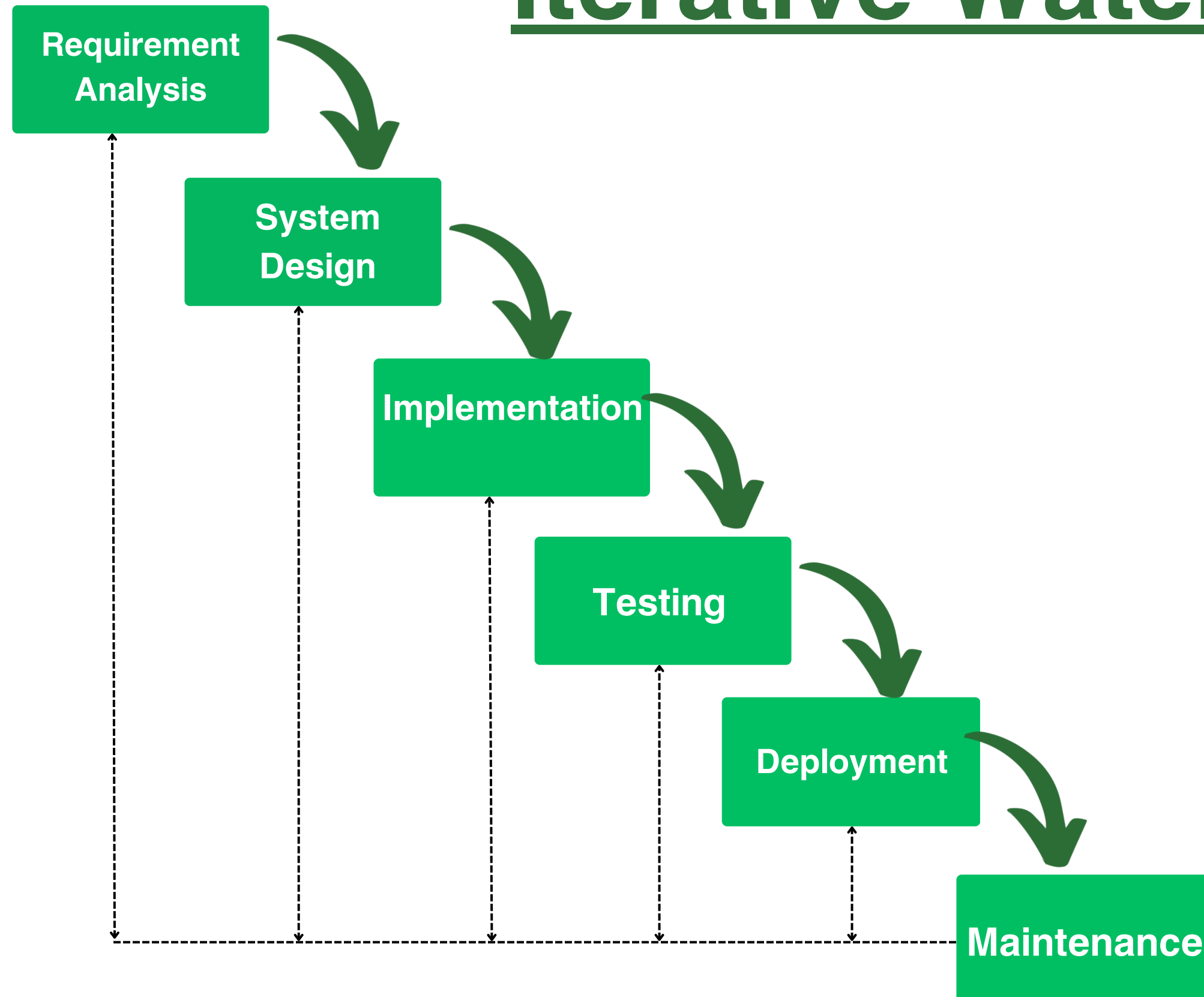
# Gantt Chart





# 09 Software Development Model

## Iterative Waterfall Model



# 10 Workload Distribution

Customer	P.G.N Maduwanthi
Collector	D.S.K Weerakoon
Regional Center Manager	K.D Dinushika
Credit Discounts Agent	G.A Pramuditha
Admin	All Members
	30

# Summary

**I will request a collect from Echo Plus**



**Your credit balance have being updated Sir**



**Please tell your mobile no to claim a discount on the bill Sir**



**I have an Echo plus account**

# Summary

**I will request a collect  
from Echo Plus**



**Your credit  
balance  
have being  
updated Sir**



**Please tell your  
mobile no to  
claim a discount  
on the bill Sir**



**I have an Echo plus  
account**





ECO PLUS

**THANK YOU !**

