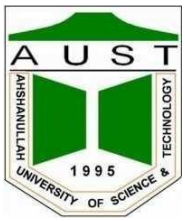
Ahsanullah University of Science & Technology

Department of Computer Science & Engineering



Seba-NGO Management System

Information System Design
&
Software Engineering Lab

CSE-3224

Data Flow Diagram & Use Case Modelling

Quest

Submitted By

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Introduction:

This report has covered two essential parts of this project. These are: **Data Flow Diagram & Use Case Modelling**. Data Flow Diagram is a graphical representation of System's data and how the process transform data. This is the most common way of documenting the process of current and required System. Use Case Modelling is a set of visual symbols to represent software requirements.

Data Flow Diagram (DFD):

Activity List:

<table>
<tr><th>Micro Credit</th><th>Education</th><th>Administration</th><th>Payroll</th></tr>
<tr><td rowspan="2">Customer Request to be assigned in Micro-Credit Project</td><td rowspan="2">Customer Request to be assigned in Education Project</td><td>Content Modification (add/delete/modify)</td><td>Pay for Employee</td></tr>
<tr><td>Donation Procedure</td><td rowspan="2">Employee Salary Calculation</td></tr>
<tr><td>Feedback of the Request</td><td>Feedback of the Request</td><td>Keeping Track of Donation</td></tr>
<tr><td>Loan Assignment</td><td></td><td>Task assignment for Employee</td><td rowspan="2">Work rate of Employee</td></tr>
<tr><td>Loan Receiving</td><td>Admission in Program</td><td>Keeping Track of Employees' Work</td></tr>
</table>

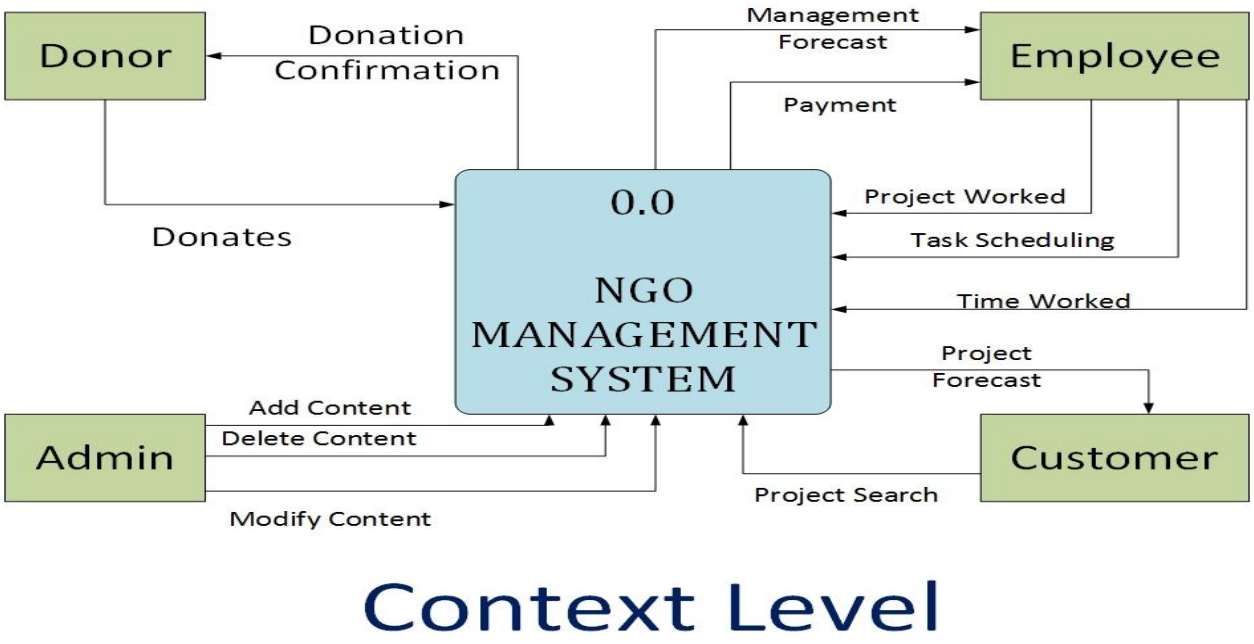
Main Process: Ngo Management System

Sub Process: Micro-Credit, Education, Administration, Payroll

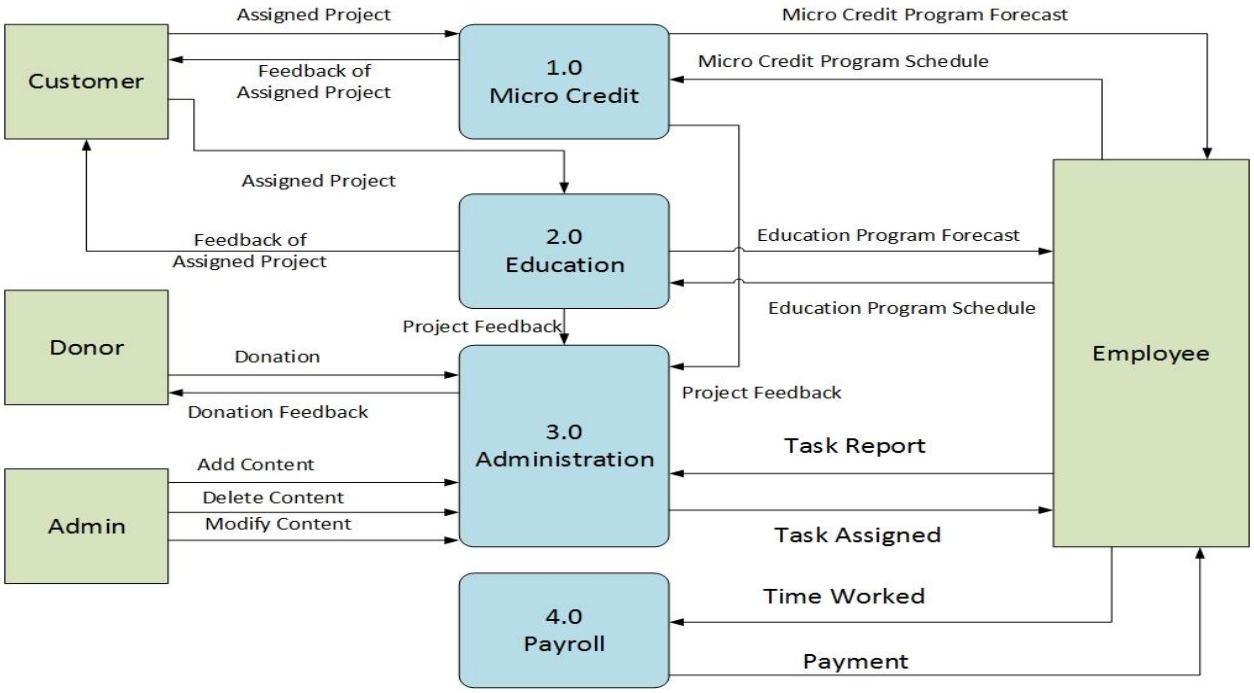
Entity: Customer, Donor, Admin, Employee

Database: Customer_Info, Donor_Info, Admin_Info, Employee_Info, Content, Donation_Info, Loan_Info, Education_Info, Time_Working, Employee_Salary

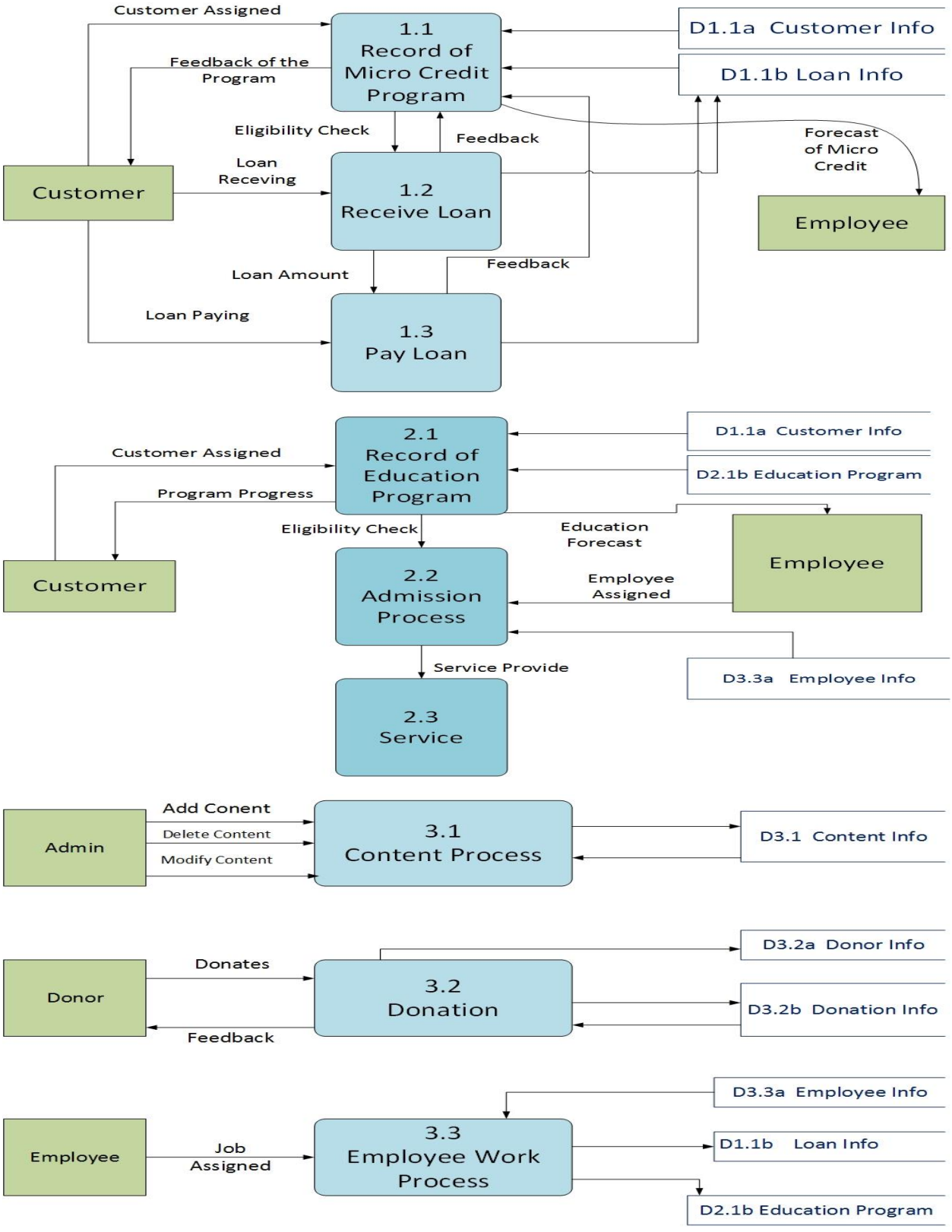
DFD - Context Level:

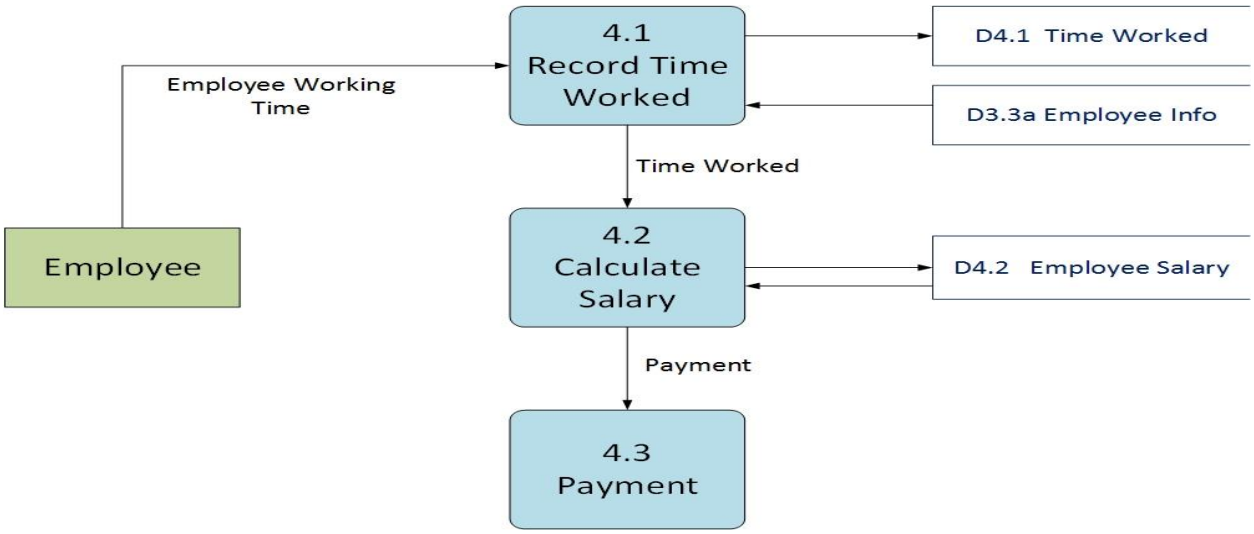


DFD – Level 0:



DFD - Level 01:


Customer Assigned
1.1
Record of
Micro Credit
Program
D1.1a Customer Info
D1.1b Loan Info
Feedback of the
Program
Eligibility Check
Feedback
Forecast
of Micro
Credit
Customer
Loan
Receving
1.2
Receive Loan
Employee
Feedback
Loan Amount
Loan Paying
1.3
Pay Loan
2.1
Record of
Education
Program
D1.1a Customer Info
Customer Assigned
D2.1b Education Program
Program Progress
Eligibility Check
Education
Forecast
Employee
Customer
2.2
Admission
Process
Employee
Assigned
Service Provide
D3.3a Employee Info
2.3
Service
Admin
Add Conent
Delete Content
Modify Content
3.1
Content Process
D3.1 Content Info
D3.2a Donor Info
Donor
Donates
3.2
Donation
D3.2b Donation Info
Feedback
D3.3a Employee Info
Employee
Job
Assigned
3.3
Employee Work
Process
D1.1b Loan Info
D2.1b Education Program



Process Decomposition:

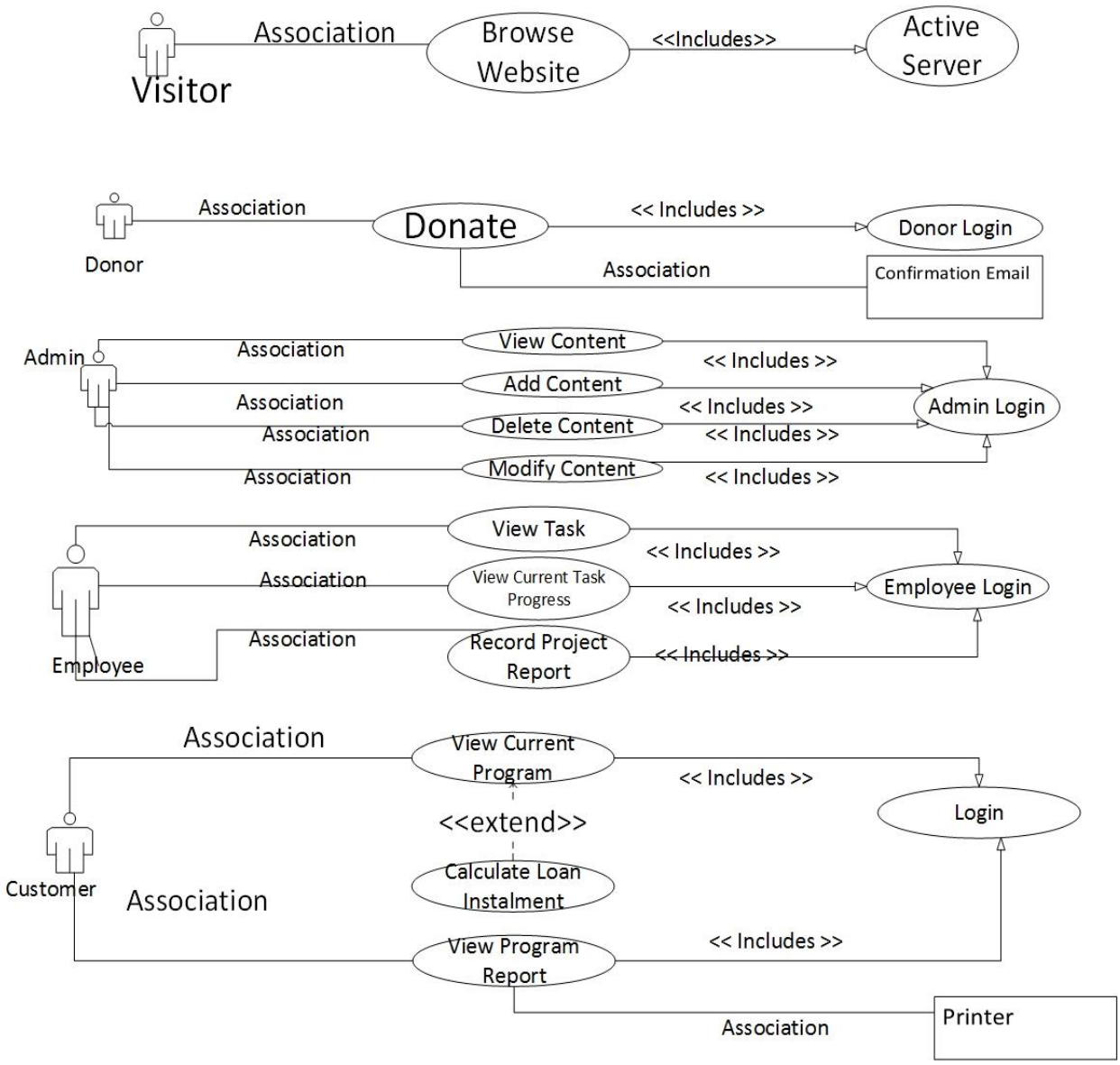
Context Level	Level -0	Level-1
NGO Management System	1.0 Micro-Credit	1.1 Record Micro-Credit Program
		1.2 Receive Loan
		1.3 Pay Loan
	2.0 Education	2.1 Record Education Program
		2.2 Admission
		2.3 Service
	3.0 Administration	3.1 Content Process
		3.2 Donation
		3.3 Employee Work Process
	4.0 Payroll	4.1 Pay to Employee

Use Case Modelling:

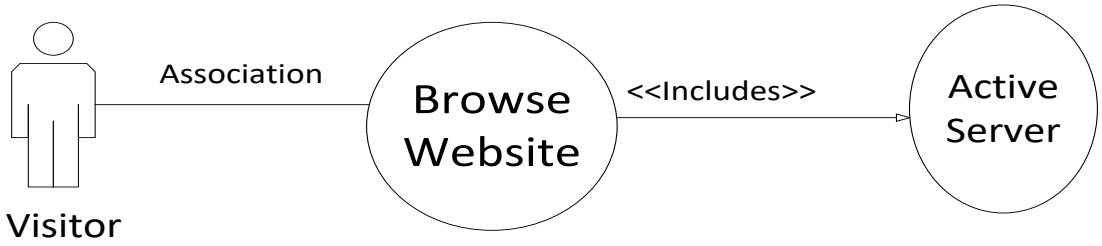
Actors:

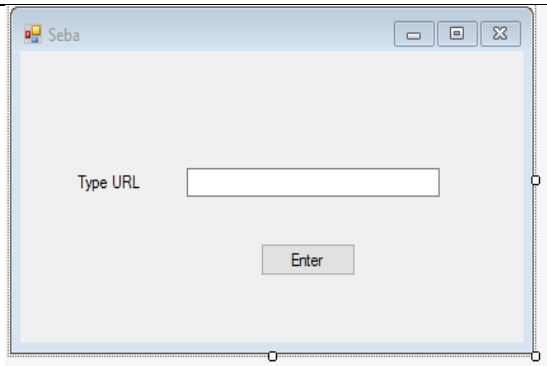
1. Visitor
2. Donor
3. Admin
4. Employee
5. Customer

Use Case Diagram:

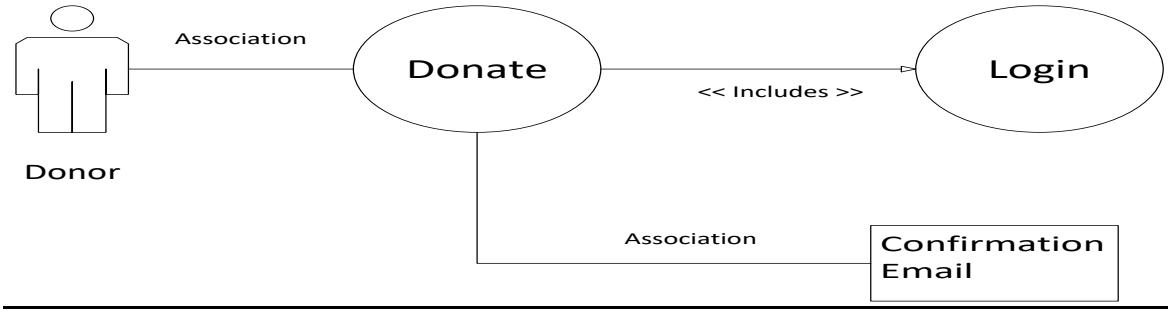


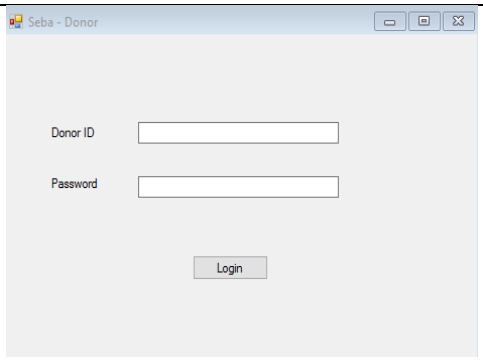
Use Case Modelling: Visitor

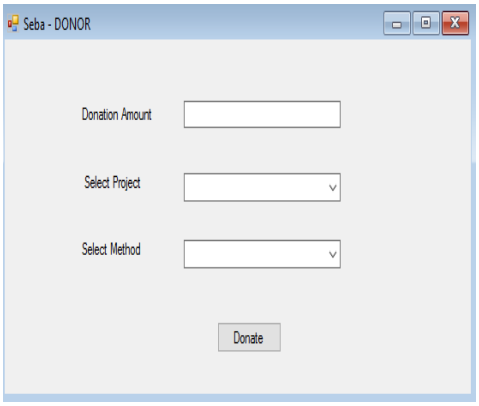


Use Case: Browse Website	GUI
• Actor: Visitor • Pre-Condition: Active Server • Primary Path: Type Web Address, Click "Enter" Button • Alternate Path: Wrong Web Address	

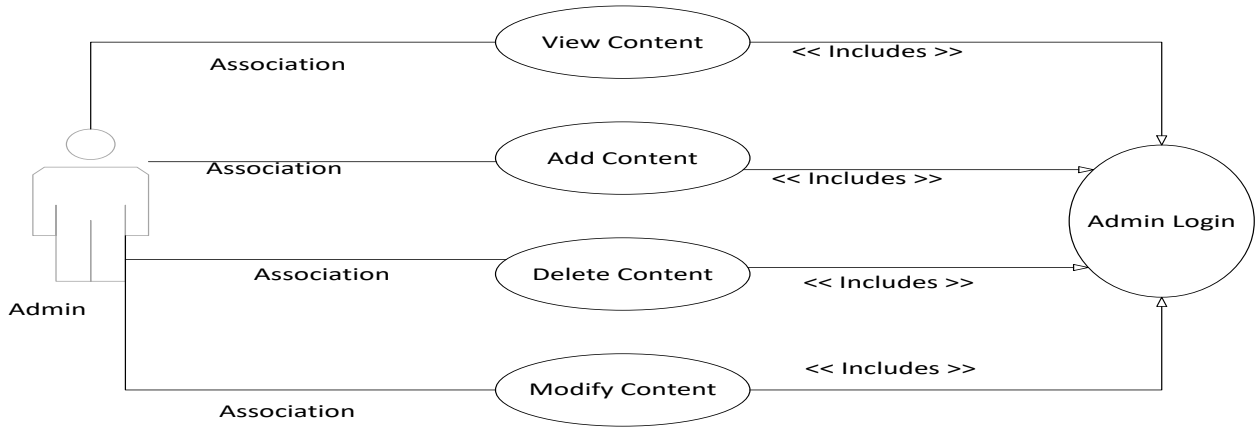
Use Case Modelling: Donor

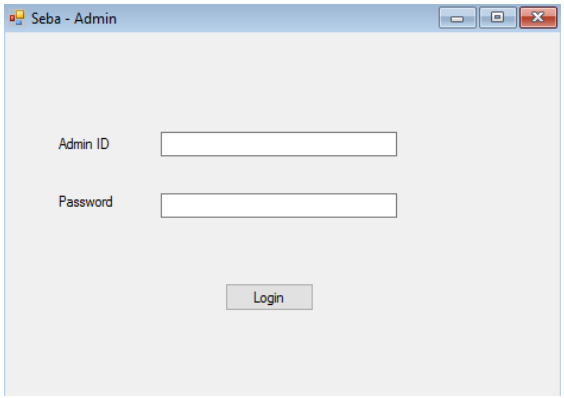


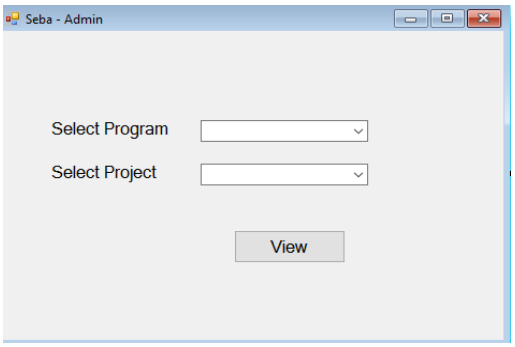
Use Case: Donor Login	GUI
• Actor: System • Pre-Condition: None • Primary Path: Insert Donor ID, Insert Password, Click Login • Alternate Path: Wrong Donor ID, Wrong Password	

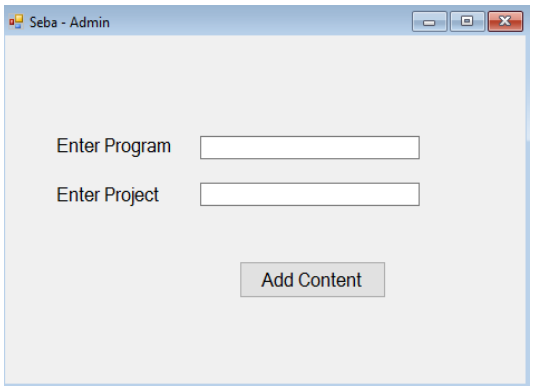
Use Case: Donor Donate	GUI
• Actor: Donor • Pre-Condition: Donor Login • Primary Path: Writing the amount to be donated, Select Project, Select Method, Click "Donate" Button • Alternate Path: Wrong Amount, Wrong Project	

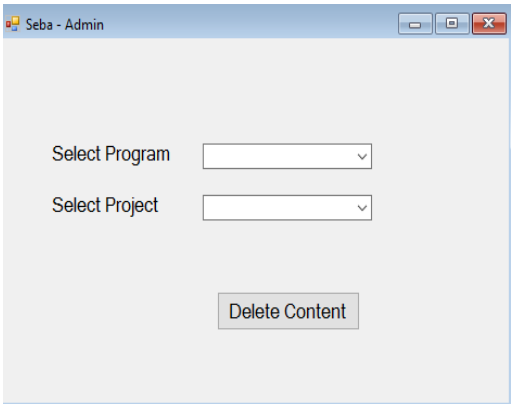
<u>Use Case Modelling</u>: Admin

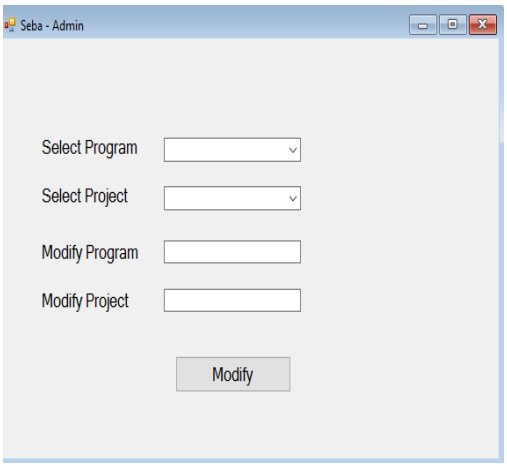


Use Case: Admin Login	GUI
• Actor : System • Pre-condition : None • Primary Path : i) enter admin id ii) enter password iii) click "login" • Alternate Path: i) wrong id ii) wrong password	

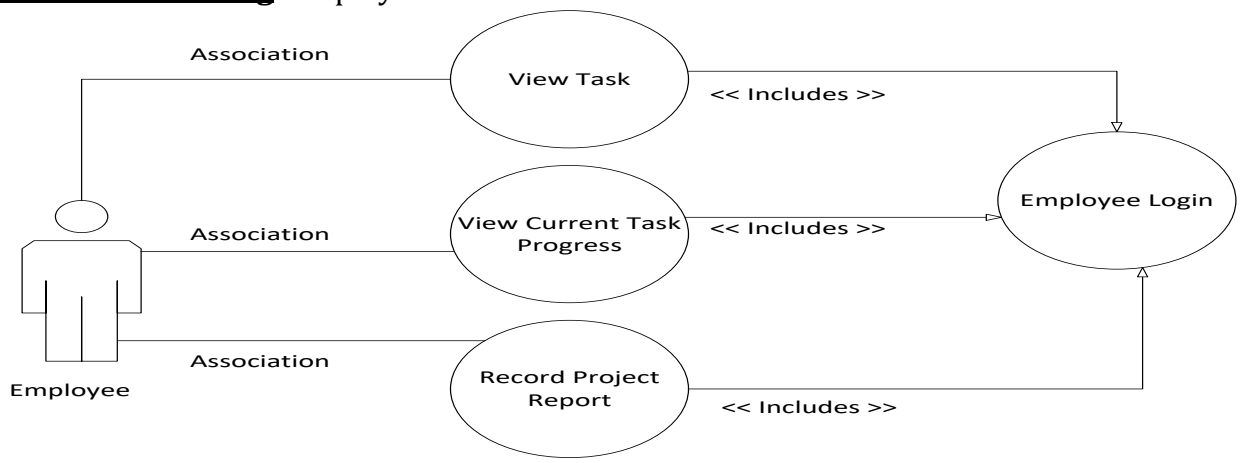
Use Case: View Content	GUI
• Actor : Admin • Pre-condition : Login • Primary Path : i) Select Program ii) Select Project iii) Click “view” • Alternate Path: i) Wrong Program ii) Project not Available	

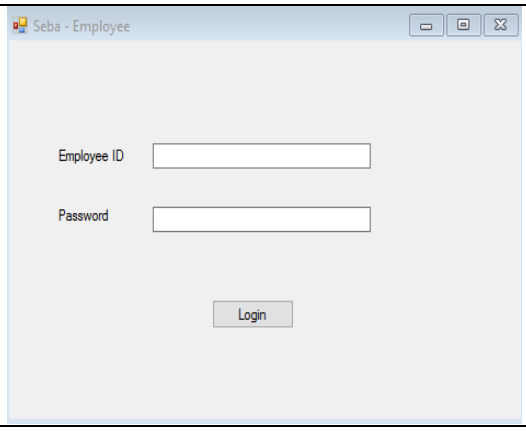
Use Case: Add Content	GUI
• Use Case: Add Content • Actor : Admin • Pre-condition : Login • Primary Path : i) Enter Program ii) Enter Project iii) Click “Add Content” • Alternate Path: i) Program & Project already saved	

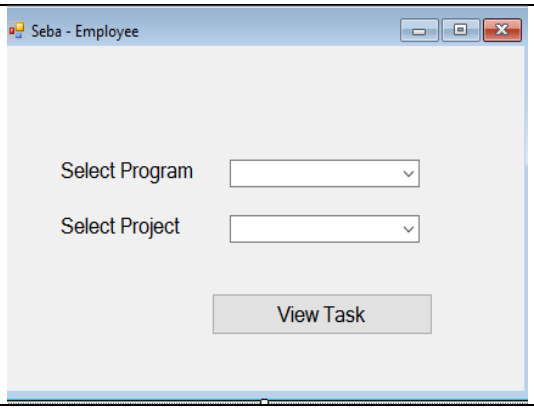
Use Case: Delete Content	GUI
• Use case : Delete Content • Actor : Admin • Pre-condition : Login • Primary Path : i) Select Program ii) Select Project iii) Click “Delete Content” • Alternate Path: i) Wrong Program ii)Project Not Found	

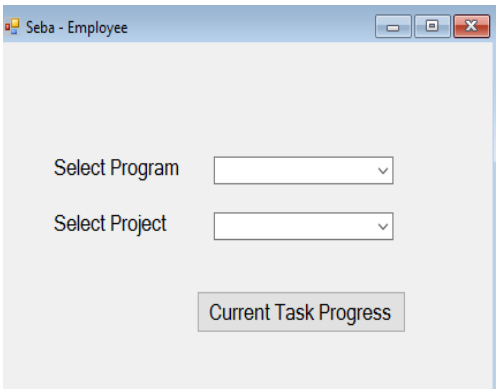
Use Case: Modify Content	GUI
• Use case : Modify Content • Actor : Admin • Pre-condition : Login • Primary Path : i) Select Program ii) Select Project iii) Modify Program & Modify Project iv) Click "Modify Content" • Alternate Path: i) Wrong Program ii) Project Not Found	

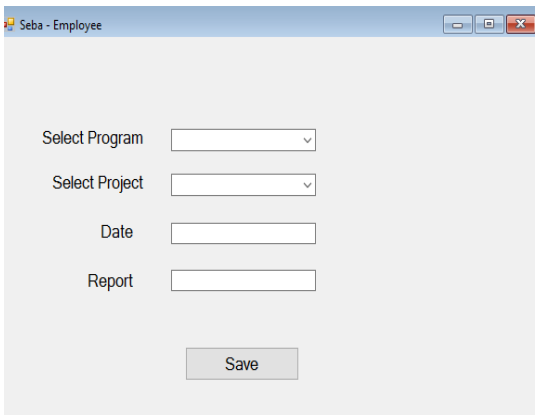
<u>Use Case Modelling</u>: Employee



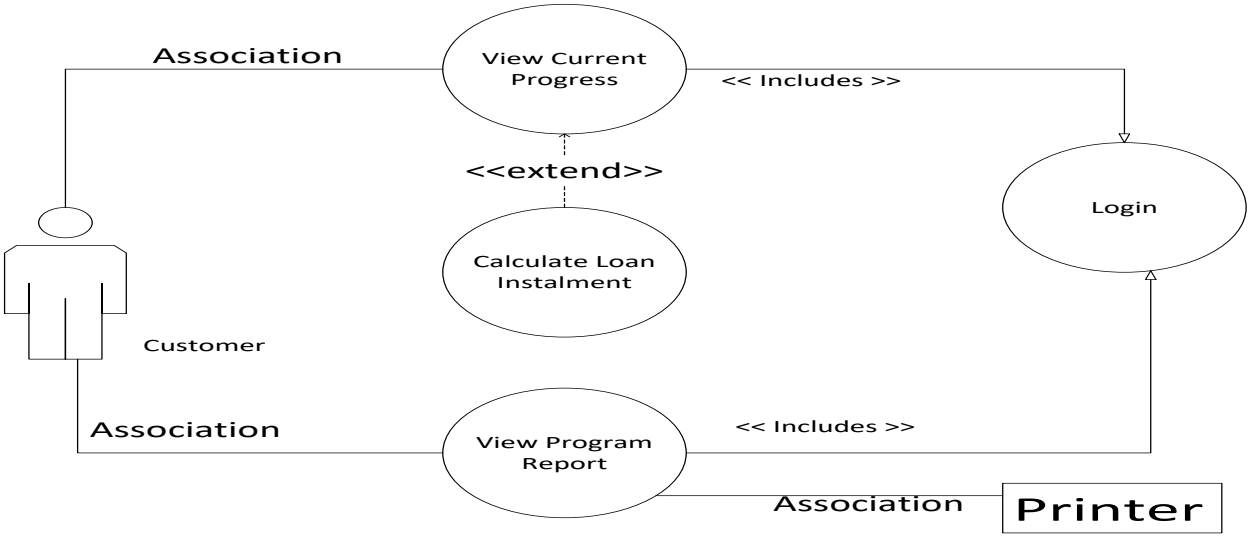
Use Case: Employee Login	GUI
• Actor : System • Pre-condition : None • Primary Path : i) Insert ID ii) Insert Password iii) Click "Login" • Alternate Path: i) Wrong ID ii)Wrong Password	

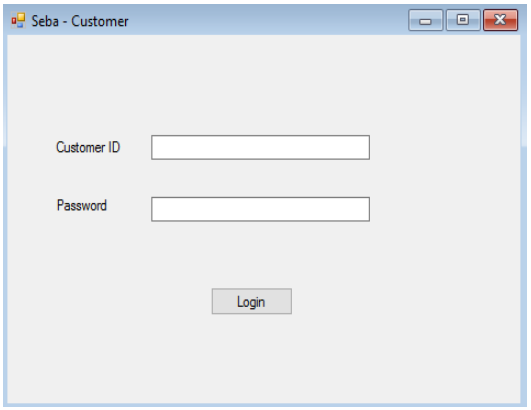
Use Case: Employee View Task	GUI
• Actor : Employee • Pre-Condition : Login • Primary Path : i) Select Project ii) Select Program iii) Select “View Task” Button • Alternate Path: i) Wrong Program/Project	

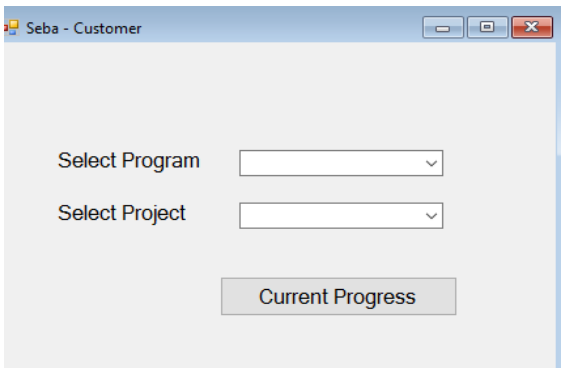
Use case : Employee View Current Task Progress	GUI
• Actor : Employee • Pre-Condition : Login • Primary Path : i) Select Program ii) Select Project iii) Select “Current Task Progress” • Alternate Path: i) Wrong Program/Project	

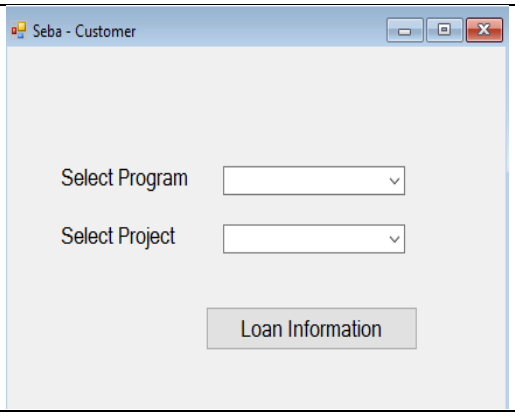
Use case : Employee Record Project Report	GUI
• Actor : Employee • Pre-Condition : Login • Primary Path : i) Select Program ii) Select Project iii) Type Date iv) Type Project Report v) Select “Save” Button • Alternate Path: i) Wrong Program/Project	

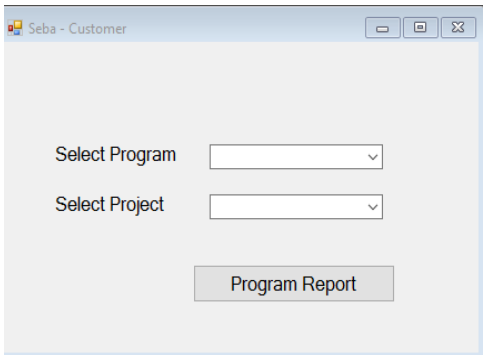
Use Case Modelling: Customer



Use case : Customer Login	GUI
• Actor : System • Pre-Condition : None • Primary Path : i) Insert ID ii) Insert Password iii) Click "Login Button" • Alternate Path: i) Wrong ID ii)Wrong Password	

Use Case : View Current Progress	GUI
• Actor : Customer • Pre-Condition : Login • Primary Path : i) Select Program ii) Select Project iii) Select "Current Progress" • Alternate Path: i) Wrong Program/Project	

Use case : Calculate Loan Instalment	GUI
• Actor : System • Pre-Condition : Login • Primary Path : i) Select Program ii) Select Project iii) Select “Loan Information” • Alternate Path: i) Wrong Program/Project	

Use case : Customer View Program Report	GUI
• Actor : Customer • Pre-Condition : Login • Primary Path : i) Select Program ii) Select Project iii) Select “View Program Report” • Alternate Path: i) Wrong Program/Project	

Conclusion:

This concludes the Data Flow Diagram & Use Case Modelling. This report deals with how data are being processed and when they are processed. This also helps to create clear view of usage of this software for different actors for different purposes.