

“NGO Based Employee Training, Progress Tracking and Job Assigning System”

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Introduction

Objectives

The main objectives of developing this project are:

- To implement the knowledge to analyze a system
- To implement the knowledge how to find out the requirements
- To implement the knowledge how to design a system
- To fulfill the course requirements

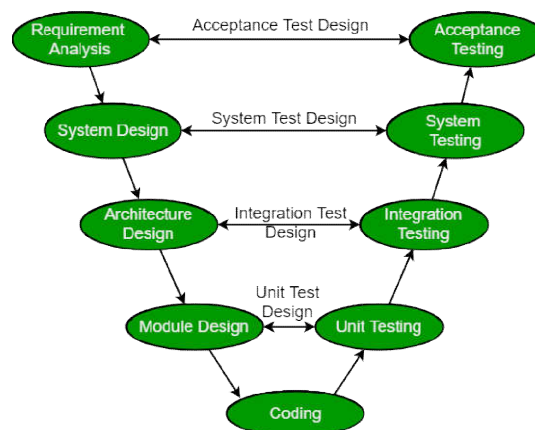
System Benefits

The benefits of the system are:

- It will help the coordinator to easily handle all the training activity
- Training coordinator can assign task to the trainee through the system
- Training coordinator can track the task progress through the system
- The system will calculate the task performance based on task progress and task accuracy
- Coordinator can manage the salary of the trainee though the system
- It will reduce the paper work
- It will save the time

Software Process Model

We have chosen V-model for our project.



Because, at first we have collected all the requirements and finalize that. Then we have started to design our system. After that we have designed our architectural model. Then we have designed our different module. After that we start coding then we test each of

the modules separately. Then we integrate the entire module and test it again. Then we have test the whole system. At last we test whether our system fulfill all the requirements or not?

Requirement Engineering

User Requirements

1. Training coordinator can log-in to the system
2. Training coordinator can see other training coordinator's basic information
3. Coordinator can manage all the registration system
4. Coordinator can manage trainee information
5. Coordinator can manage instructor information
6. Coordinator can manage course information
7. Coordinator can assign the task
8. Coordinator can see the assigned task information
9. Coordinator can track the task progress
10. Coordinator can manage the task performance
11. Coordinator can manage the Trainee salary
12. Coordinator can generate all the reports (Task, progress, Performance, Salary)

System Requirements

1. Training coordinator can log-in to the system

- 1.1. At the home page there will be a log-in form. Fill up the form and click on Login button at the bottom of the form.
- 1.2. After clicking the Login button it will redirect to the coordinator panel.
- 1.3. There will be a logout button at the dropdown list of the settings button at the bottom of the sidebar of coordinator panel. By clicking the logout button coordinator can log out from the system.

2. Training coordinator can see other training coordinator's basic information

- 2.1. There will be button named View. By clicking that button a dropdown list will appear.
- 2.2. At the dropdown list there will a menu named Coordinator. by clicking that menu it will show the other coordinator's basic information.

3. Coordinator can manage all the registration system

- 3.1. There will be button named Add. After clicking that button a dropdown list will appear.
- 3.2. At the dropdown list there will be 4 menu named "Add Course", "Add Trainee", "Add Instructor", "Add Coordinator". By clicking any of those menus a registration form will appear.
- 3.3. After filling up the registration form click on the Submit button. It will redirect to the index page to show whether the registration become successful or not.

4. Coordinator can manage trainee information

- 4.1. There will be button named "View". After clicking that button a dropdown list will be appeared. And there will be a menu named "Trainee info". by clicking that menu the trainee information index page will be shown. At the right side of the each record there will be "Edit", "Details", and "Delete" button.
- 4.2. After clicking Edit button an edit form will appear. Change the required information and click on the save button at the bottom of the form. It will redirect to the index page to show the updated information.
- 4.3. After clicking Details button the details information of the Trainee will be shown.
- 4.4. After clicking Delete button a delete confirmation page will redirect and ask for delete. By clicking the Delete button again at the bottom of the page the record will be deleted.

5. Coordinator can manage instructor information

- 5.1. There will be button named "View". After clicking that button a dropdown list will be appeared. And there will be a menu named "Instructor info". by clicking that menu the Instructor information index page will be shown. At the right side of the each record there will be "Edit", "Details", and "Delete" button

5.2. After clicking Edit button an edit form will appear. Change the required information and click on the save button at the bottom of the form. It will redirect to the index page to show the updated information.

5.3. After clicking Details button the details information of the Trainee will be shown.

5.4. After clicking Delete button a delete confirmation page will redirect and ask for delete. By clicking the Delete button at the bottom of the page the record will be deleted.

6. Coordinator can manage course information

6.1. There will be button named "View". After clicking that button a dropdown list will be appeared. And there will be a menu named "Course info". by clicking that menu the Course information index page will be shown. At the right side of the each record there will be "Edit", "Details", and "Delete" button

6.2. After clicking Edit button an edit form will appear. Change the required information and click on the save button at the bottom of the form. It will redirect to the index page to show the updated information.

6.3. After clicking Details button the details information of the Trainee will be shown.

6.4. After clicking Delete button a delete confirmation page will redirect and ask for delete. By clicking the Delete button at the bottom of the page the record will be deleted.

7. Coordinator can assign the task

7.1. There will be button named "Task" at the sidebar of the coordinator panel. After clicking that button a dropdown list will appear there will be a menu named "Assign Task".

7.2. After clicking that button a form will appear. Fill up the form and click on assign button at the bottom of the form. it will redirect to the index page.

8. Coordinator can see the assigned task information

8.1. There will be button named "Task" at the sidebar of the coordinator panel. After clicking that button a dropdown list will appear there will be a menu named "Show Assigned Task".

8.2. After clicking that menu all the assigned task will be shown.

9. Coordinator can track the task progress

- 9.1. There will be button named “Progress” at the sidebar of the coordinator panel.
After clicking that button a dropdown list will be shown. There will be two menu “Submit Task Progress”, “Show Task Progress”.
- 9.2. After clicking the “Submit Task Progress” a form will appear. Fill up the form and click on submit button it will redirect to the index page to show whether the operation become successful or not.
- 9.3. After clicking the “Show Task Progress” it will redirect to the index page and show the entire trainee’s task progress.
- 9.4. Coordinator can update the task progress by clicking the “Edit” button at the right side of the each task progress record.

10. Coordinator can manage the task performance

- 10.1. There will be button named “Performance” at the sidebar of the coordinator panel. After clicking that button a dropdown list will be shown. There will be two menu “Submit Task Performance”, “Show Task Performance”.
- 10.2. After clicking “Submit Task Performance” button a form will appear. Fill up the form and click on submit button. It will redirect to the index page to show whether the operation become successful or not.
- 10.3. After clicking the “Show Task Performance” button it will redirect to the index page.
- 10.4. There will be search bar at the top of the index page where coordinator can search by trainee id to see the individual’s task performance.

11. Coordinator can manage the Trainee salary

- 11.1. There will be button named “Salary” at the sidebar of the coordinator panel. After clicking that button a dropdown list will be shown. There will be two menus “Generate Salary”, “Show Salary info”.
- 11.2. After clicking the “Generate salary” button a form will appear. Fill up the form and click on submit button at the bottom of the form. It will redirect to the index page.
- 11.3. After clicking the “Show Salary info” button it will show the entire employee’s salary info.

12. Coordinator can generate all the reports (Task, progress, Performance, Salary)

- 12.1. There will be button named "Report" at the sidebar of the coordinator panel. After clicking that button a dropdown list will be shown. There will be 4 menus "Task Report", "Progress Report", "Performance Report", and "Salary Report".
- 12.2. After clicking any of the above menu a search form will appear where coordinator have to provide the trainee's Id and then click on the search button it will show the correspondent reports.

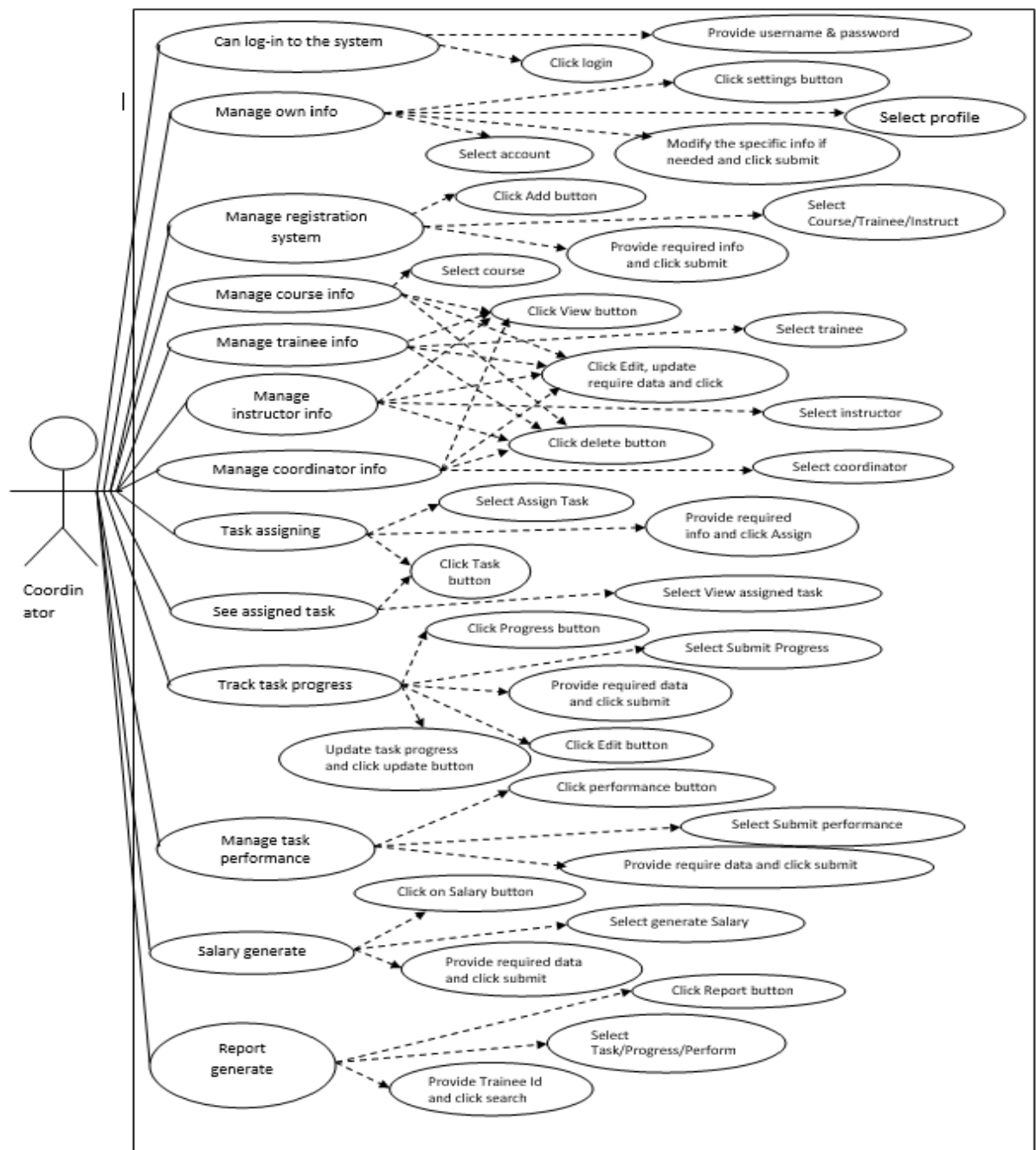
Functional Requirements

1. If the username and password match at the training coordinator log in form then only it will redirect to the coordinator panel otherwise it will redirect the log- in form.
2. All the input fields of registering training course, training instructor, trainee and coordinator should be filled up.
3. At the trainee and training instructor registration form the contact number should be number type and email address input field should be email type.
4. At the trainee registration form the course names in which the trainee is going to train will be shown and coordinator will select one of them
5. All the input field of assigning a task should be filled up
6. In salary generate form the trainee id and salary month will be selected and coordinator only input the basic salary and bonus and total salary will be calculated automatically.
7. In progress submit form the trainee id and task id will be selected coordinator only input the progress percentage.
8. Progress bar of a task will be updated based on the progress percentage.
9. Performance Score of a task will be calculated based on the final progress percentage and task accuracy percentage.
10. To see any report of any individual's trainee coordinator have to search by trainee id.

Non-Functional Requirements

1. Log-in password should be hidden.
2. One coordinator can only add and see other coordinator information(without username and password) but can't change the information

Use Case Diagram



Analysis Modeling

Class Responsibilities Collaborate (CRC)

Table-01: CRC for Coordinator class

Class Name: Coordinator	
Class Type: Role	
Class Characteristics: Tangible, Concurrent, Persistent, Guarded	
Responsibilities: <ul style="list-style-type: none">• Log-In• Log-Out• Create Account• Manage Account• Show Profile• Change Password (of own)• List accounts	Collaborators:

Table-02: CRC for Trainee class

Class Name: Trainee	
Class Type: Tangible, Assemblies or Organizational units	
Class Characteristics: Tangible, Sequential, Persistent, Guarded	
Responsibilities: <ul style="list-style-type: none">• Register Trainee• Show Trainee info• Manage Trainee info	Collaborators: <ul style="list-style-type: none">• Training Course

Table-03: CRC for Instructor class

Class Name: Instructor	
Class Type: Tangible, Assemblies, or Organizational units	
Class Characteristics: Tangible, Sequential, Persistent, Guarded	
Responsibilities: <ul style="list-style-type: none">• Add Instructor info• Show instructor info• Manage instructor info	Collaborators:

Table-04: CRC for Training Course class

Class Name: Training Course	
Class Type: Structures, Assemblies or Organizational units	
Class Characteristics: Abstract, Sequential, Persistent, Guarded	
Responsibilities: <ul style="list-style-type: none"> • Create new course • Display course lists • Show course information • Update course information • Delete course 	Collaborators: <ul style="list-style-type: none"> • Trainee • Trainee

Table-05: CRC for Task class

Class Name: Task	
Class Type: Occurrences Or Events	
Class Characteristics: Abstract, Sequential, Persistent, Guarded	
Responsibilities: <ul style="list-style-type: none"> • Assign Task • Show assigned task • Manage task • Show task list 	Collaborators: <ul style="list-style-type: none"> • Trainee, instructor • Trainee • Trainee

Table-06: CRC for Progress class

Class Name: Progress	
Class Type: Occurrences or Events	
Class characteristics: Abstract, Sequential, Persistent, Guarded	
Responsibilities: <ul style="list-style-type: none"> • Submit task progress • Show task progress • Update task progress 	Collaborators: <ul style="list-style-type: none"> • Task, Trainee • Task, Trainee • Task, Trainee

Table-07: CRC for Performance class

Class Name: Performance	
Class Type: Properties	
Class Characteristic: Abstract, Sequential, Persistent, Guarded	
Responsibilities: <ul style="list-style-type: none">• Submit task accuracy• Calculate task performance• Show task performance	Collaborators: <ul style="list-style-type: none">• Task, Trainee, Instructor• Progress• Task, Trainee, Instructor

Table-08: CRC for Salary class

Class Name: Salary	
Class Type: Structures, Assemblies or Organizational units	
Class Characteristic: Abstract, Sequential, Persistent, Guarded	
Responsibilities: <ul style="list-style-type: none">• Submit basic salary• Calculate bonus• Calculate total salary• Show salary info• Manage salary info	Collaborators: <ul style="list-style-type: none">• Trainee• Performance• Trainee• Trainee

Activity Diagram

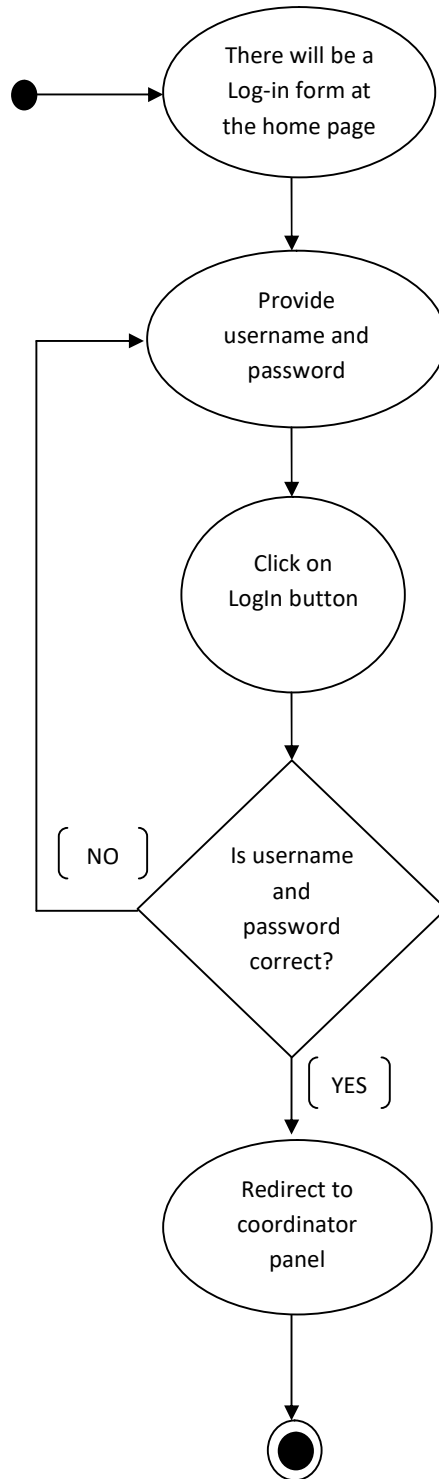


Figure-01: Activity diagram for Log-In system.

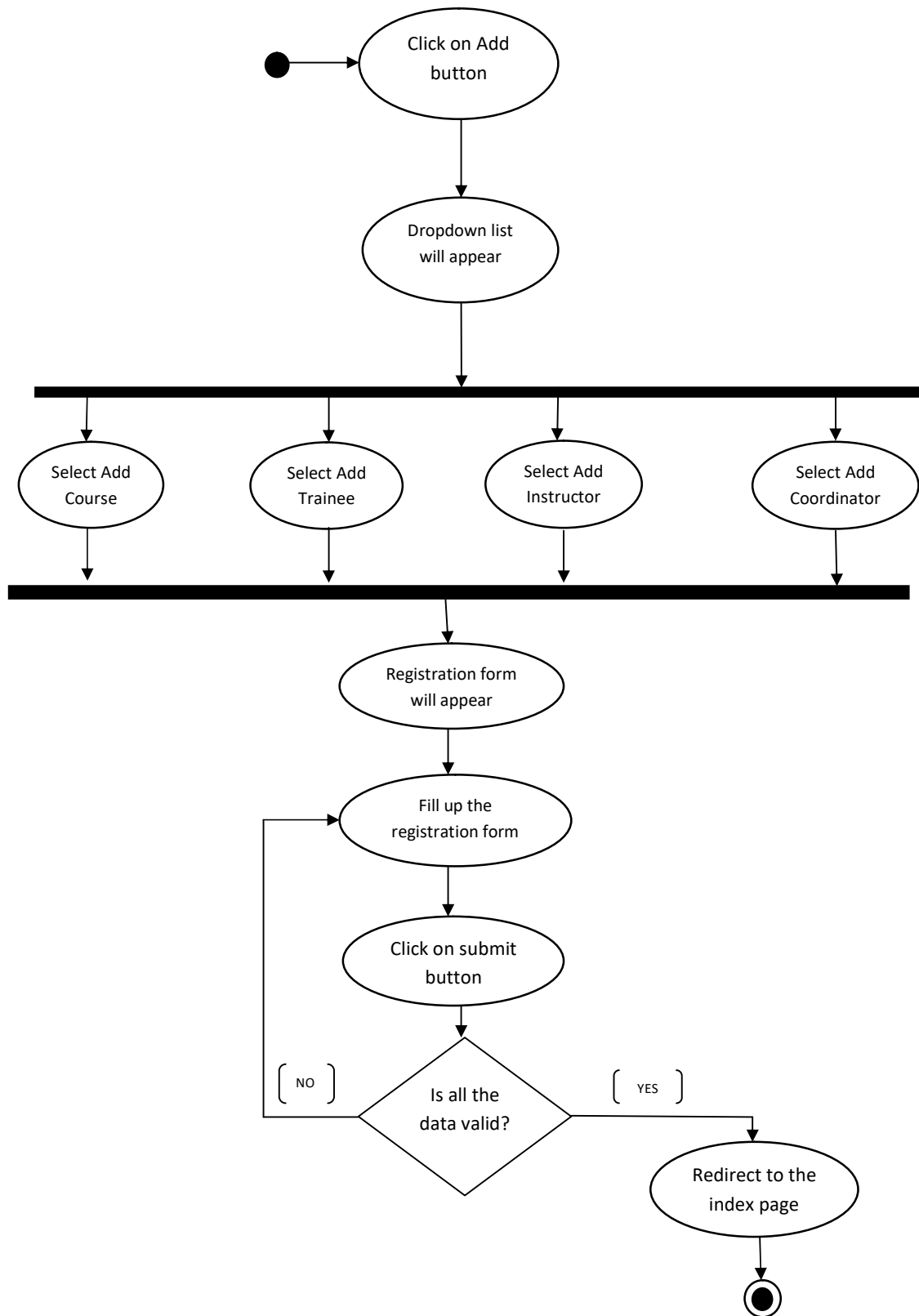


Figure-02: Activity diagram for managing registration system.

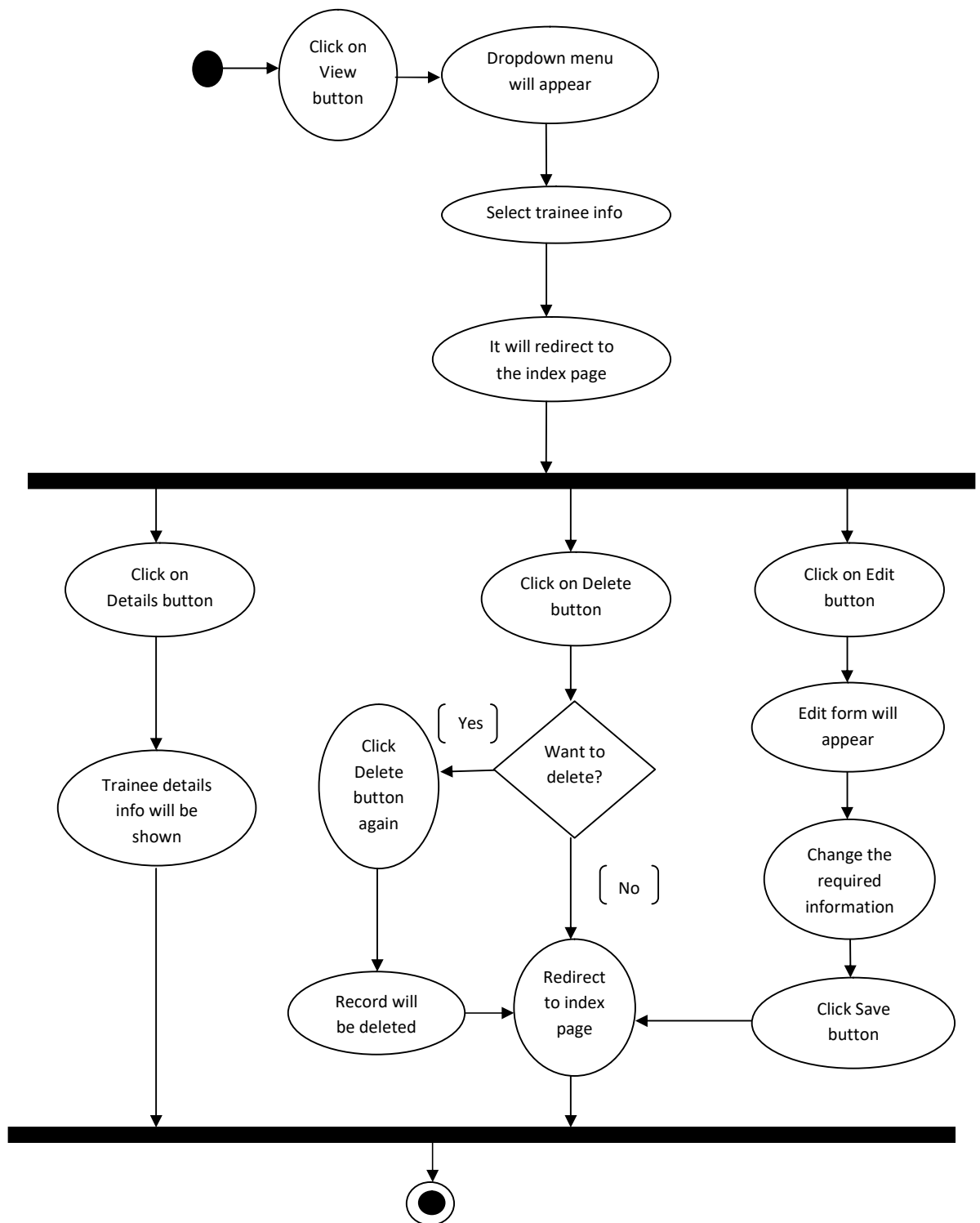


Figure-03: Activity diagram for managing Trainee information.

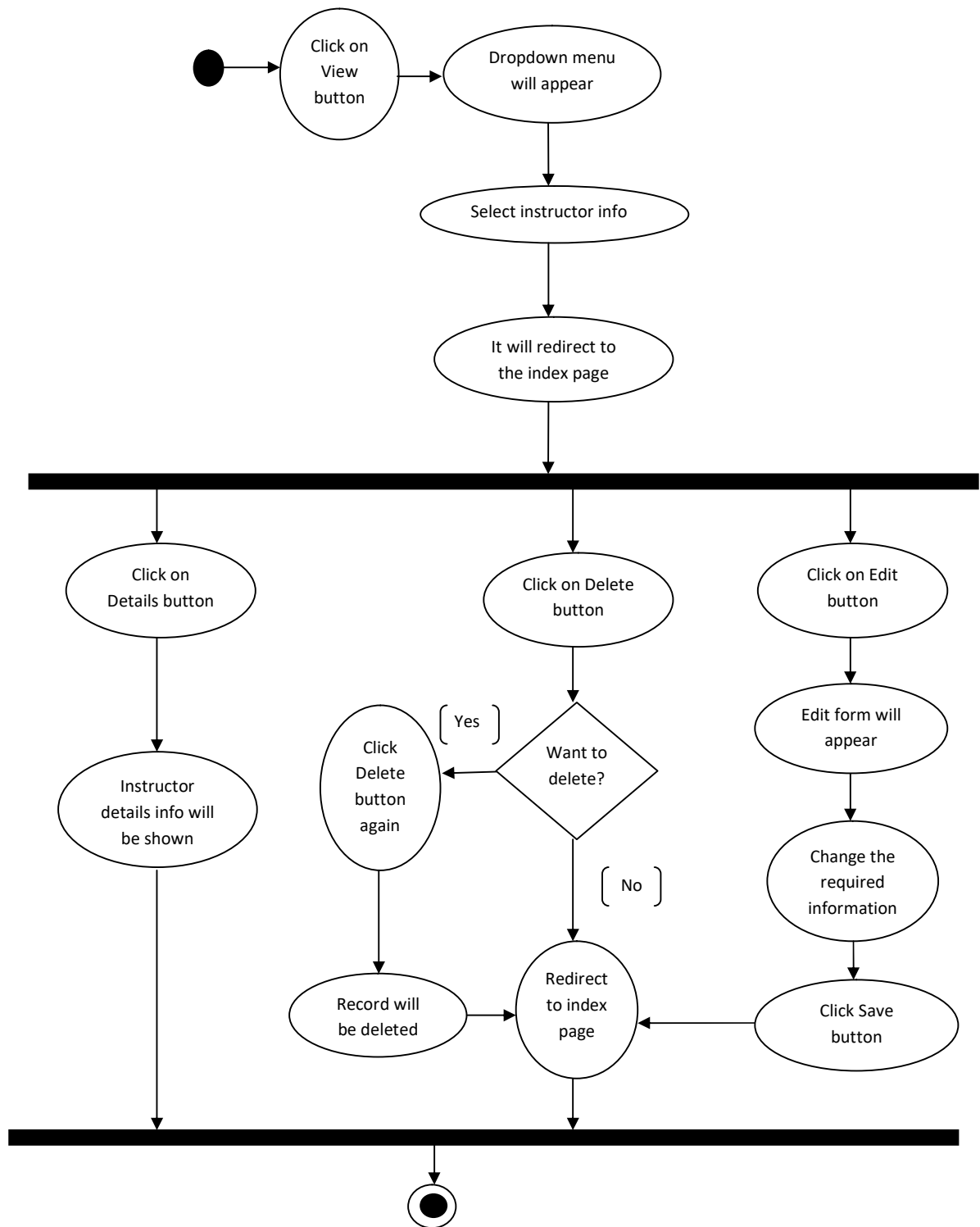


Figure-04: Activity diagram for managing Instructor information.

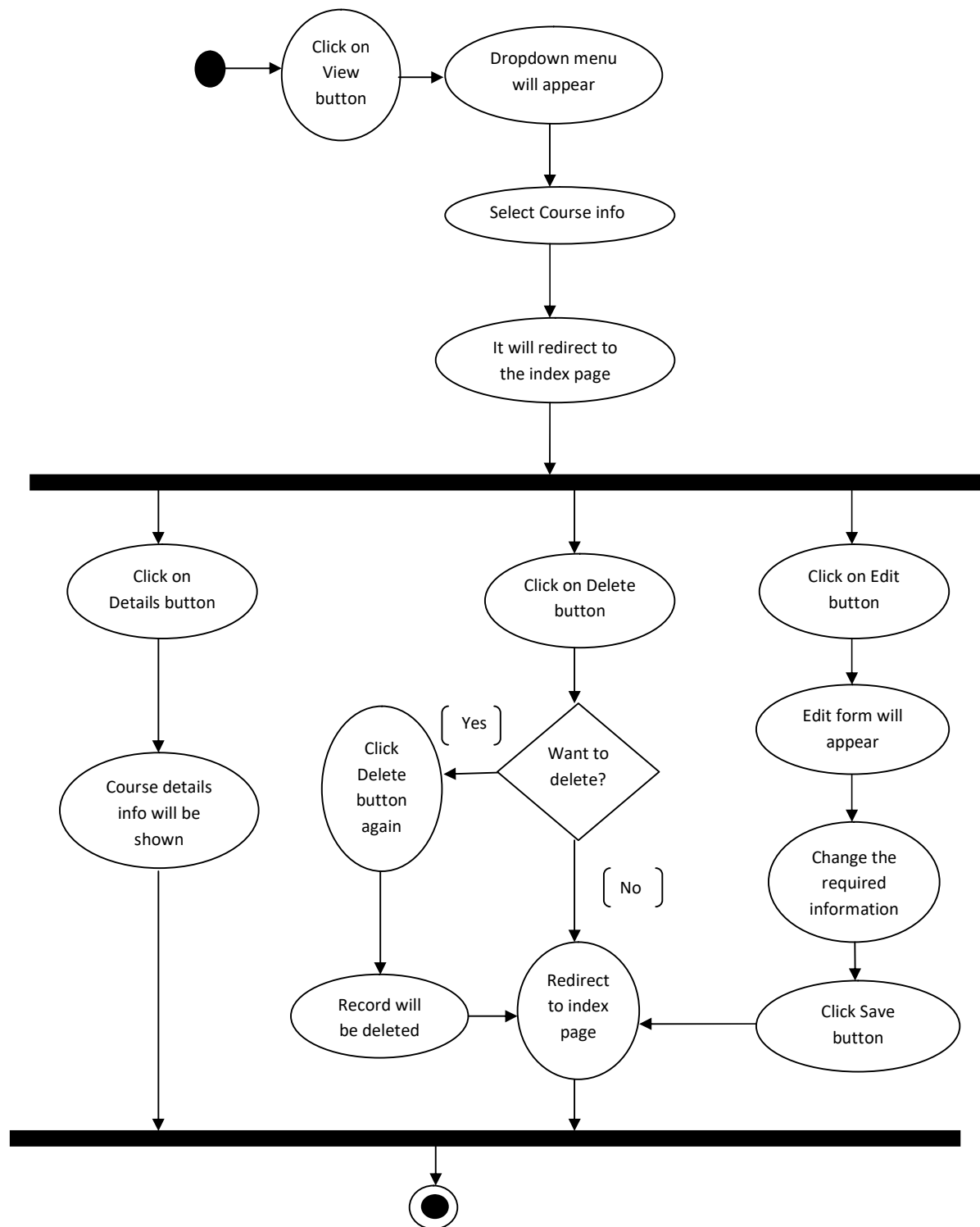


Figure-05: Activity diagram for managing Course information.

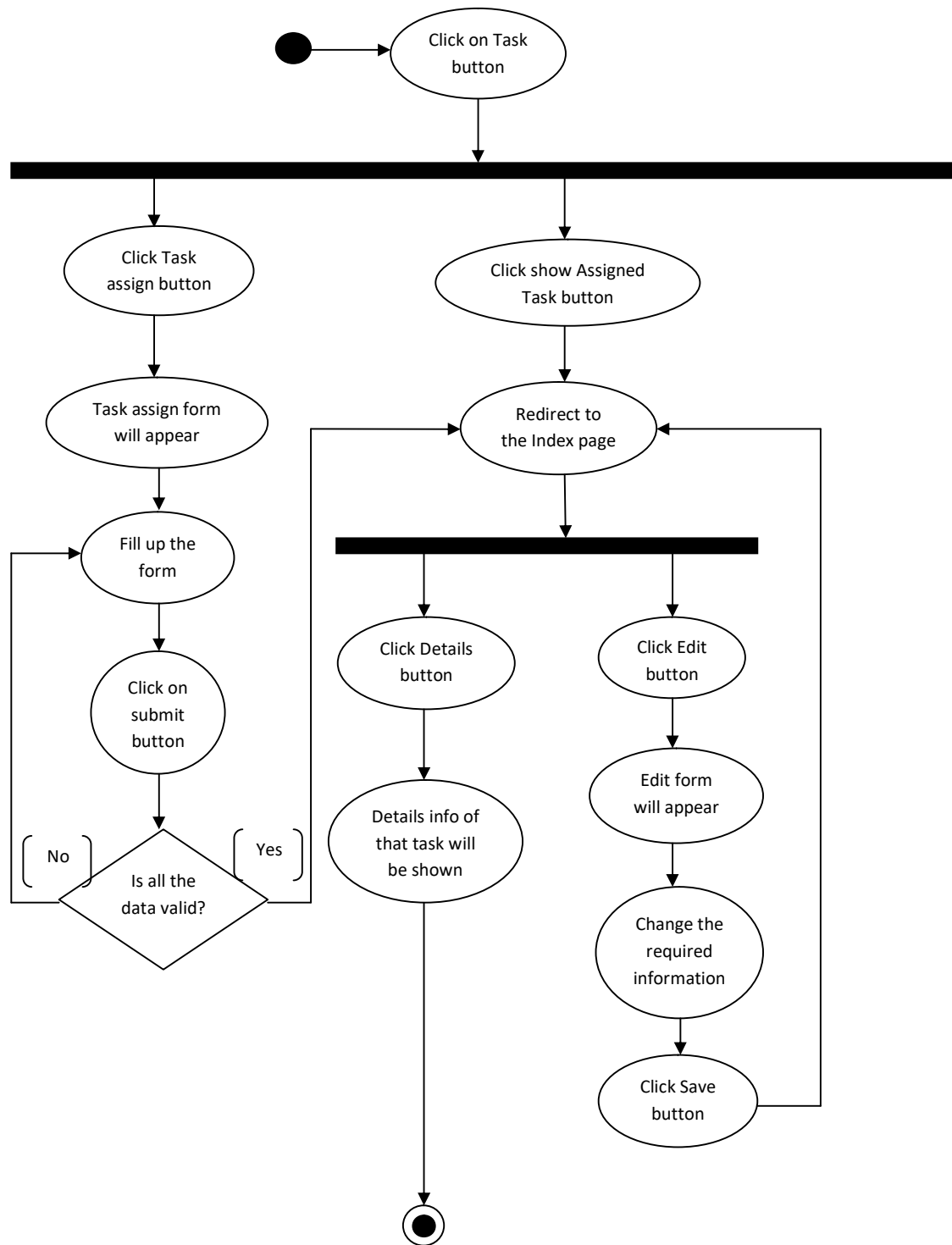


Figure-06: Activity diagram for managing Task.

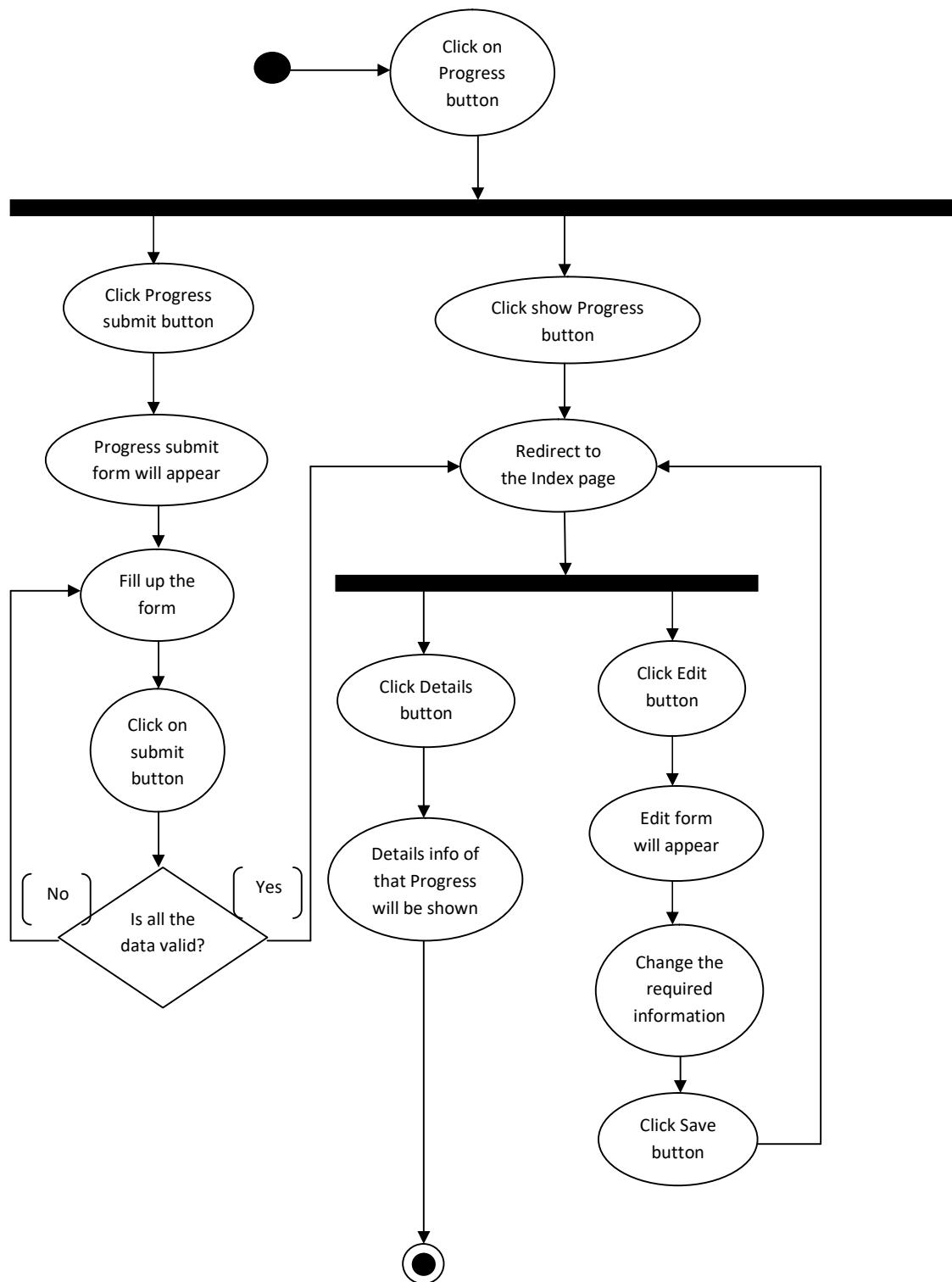


Figure-07: Activity diagram for tracking progress.

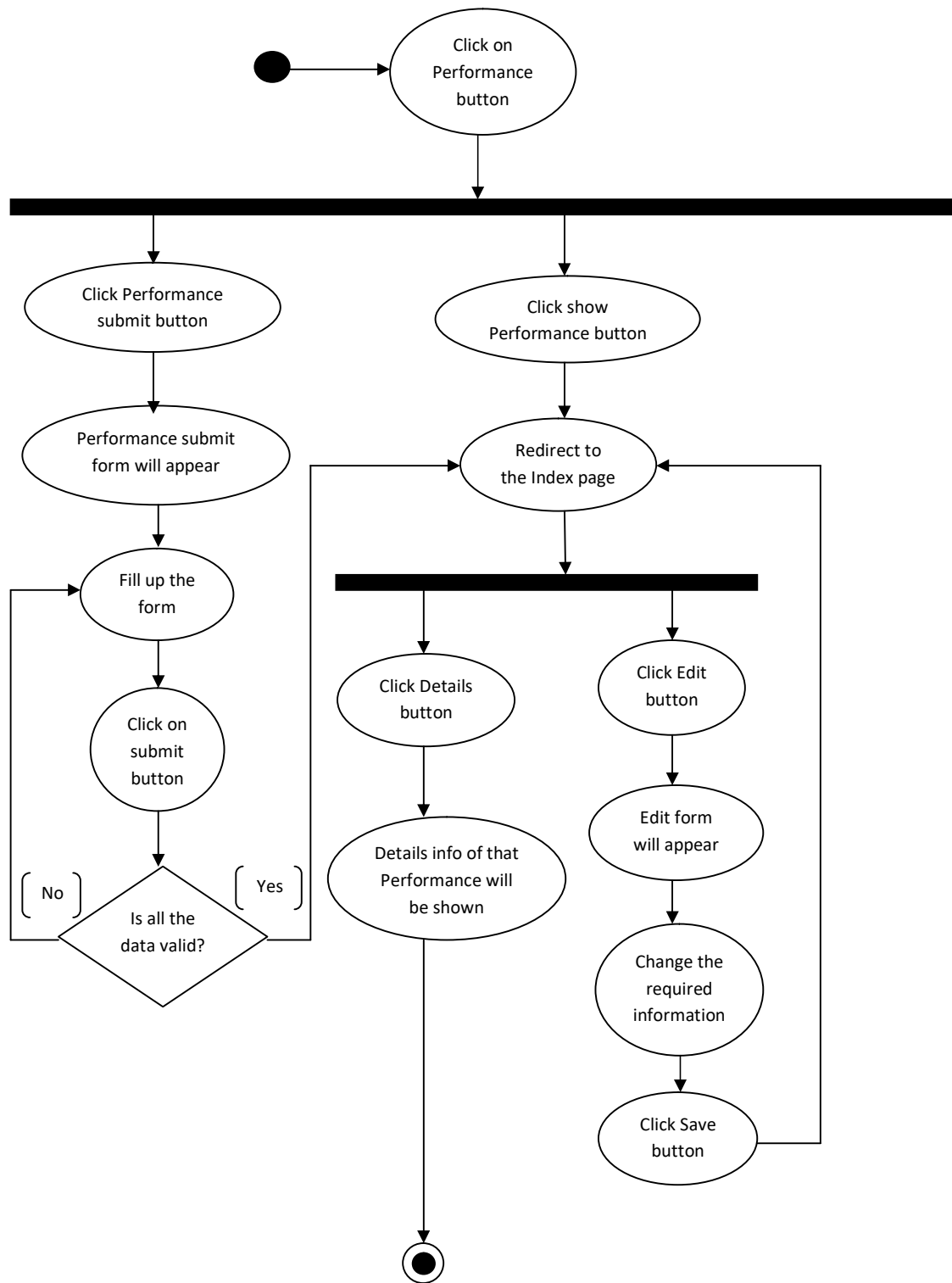


Figure-08: Activity diagram for managing task performance.

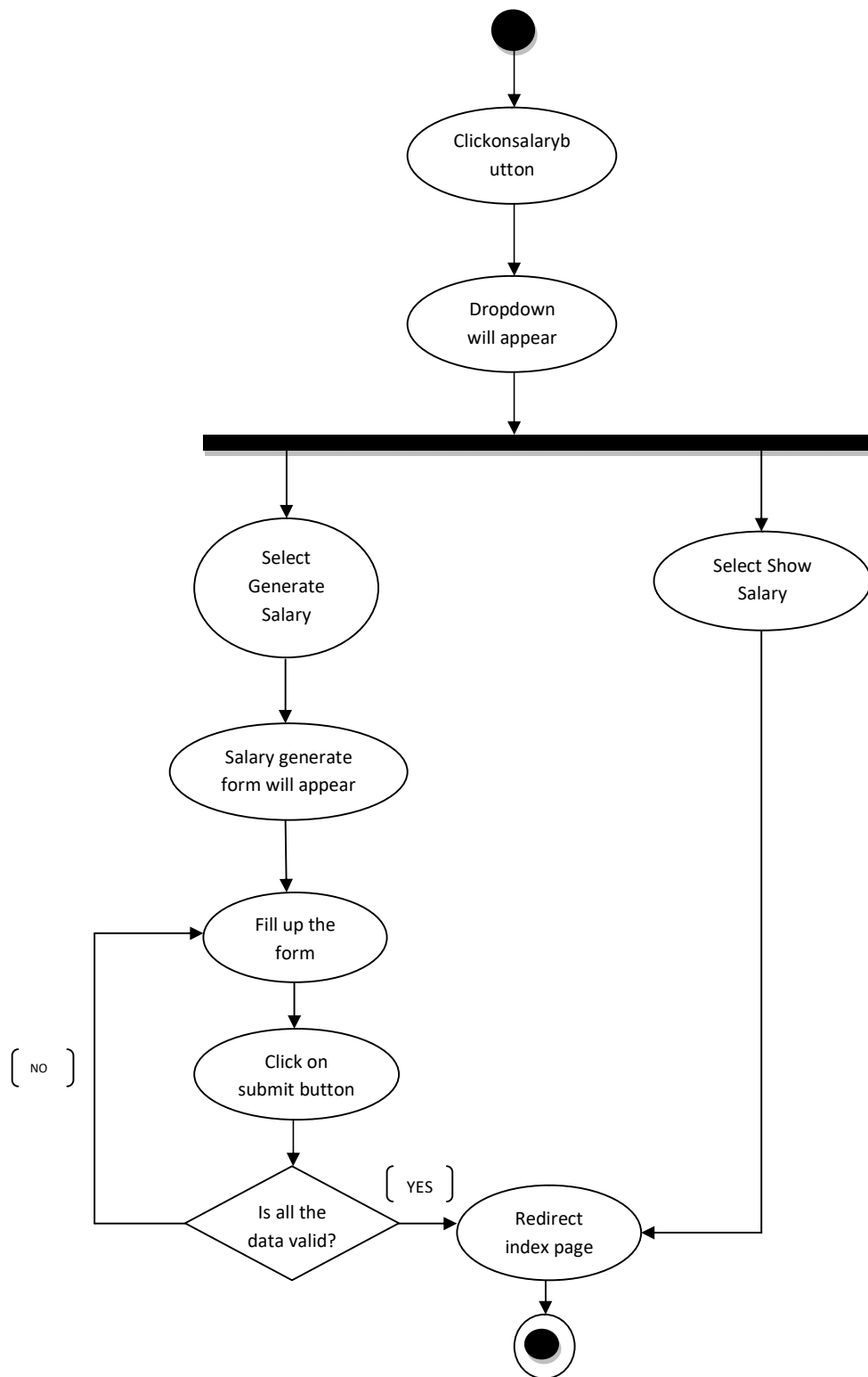


Figure-09: Activity diagram for managing Salary.

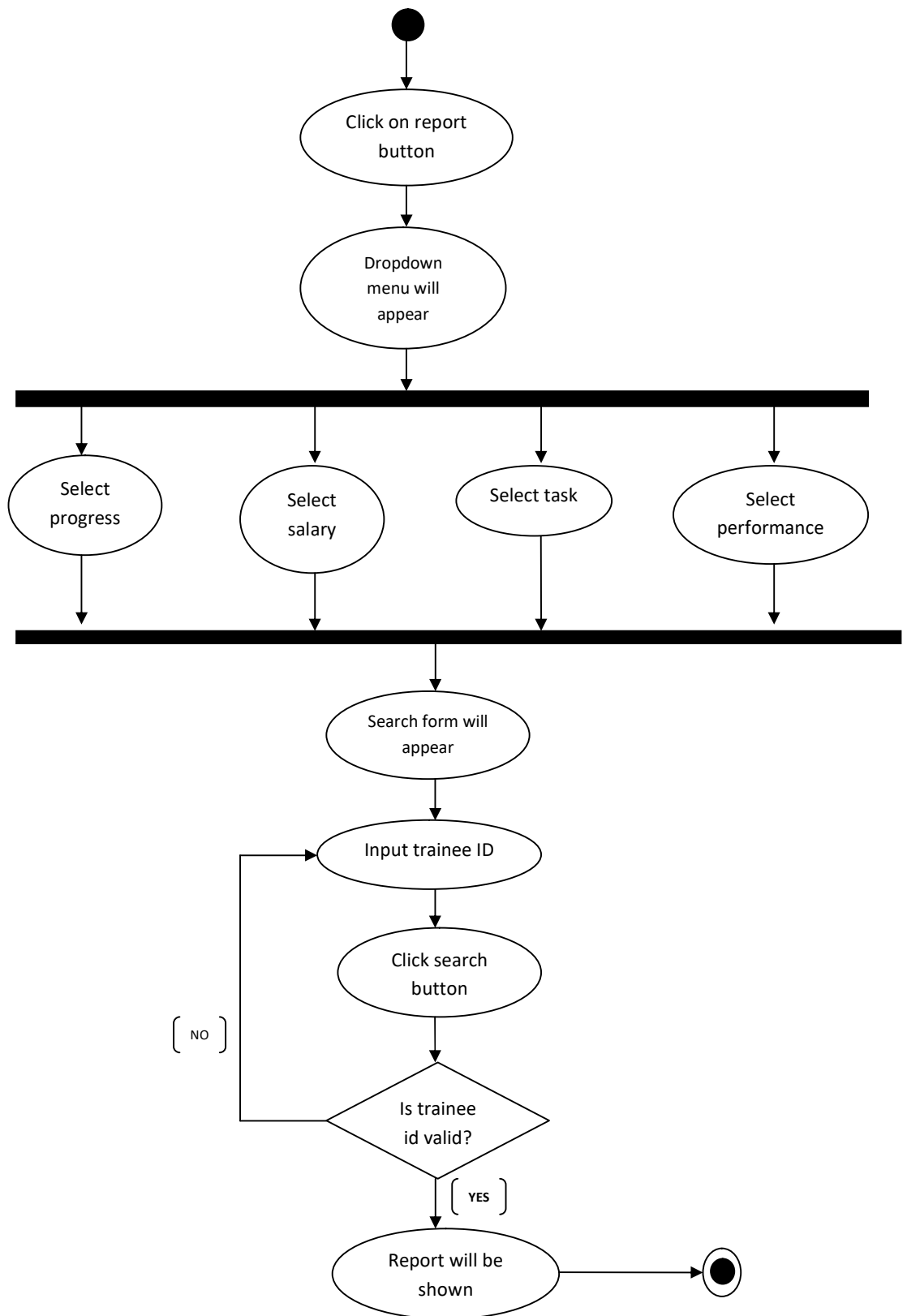


Figure-10: Activity diagram for managing Report.

Swim Lane Diagram

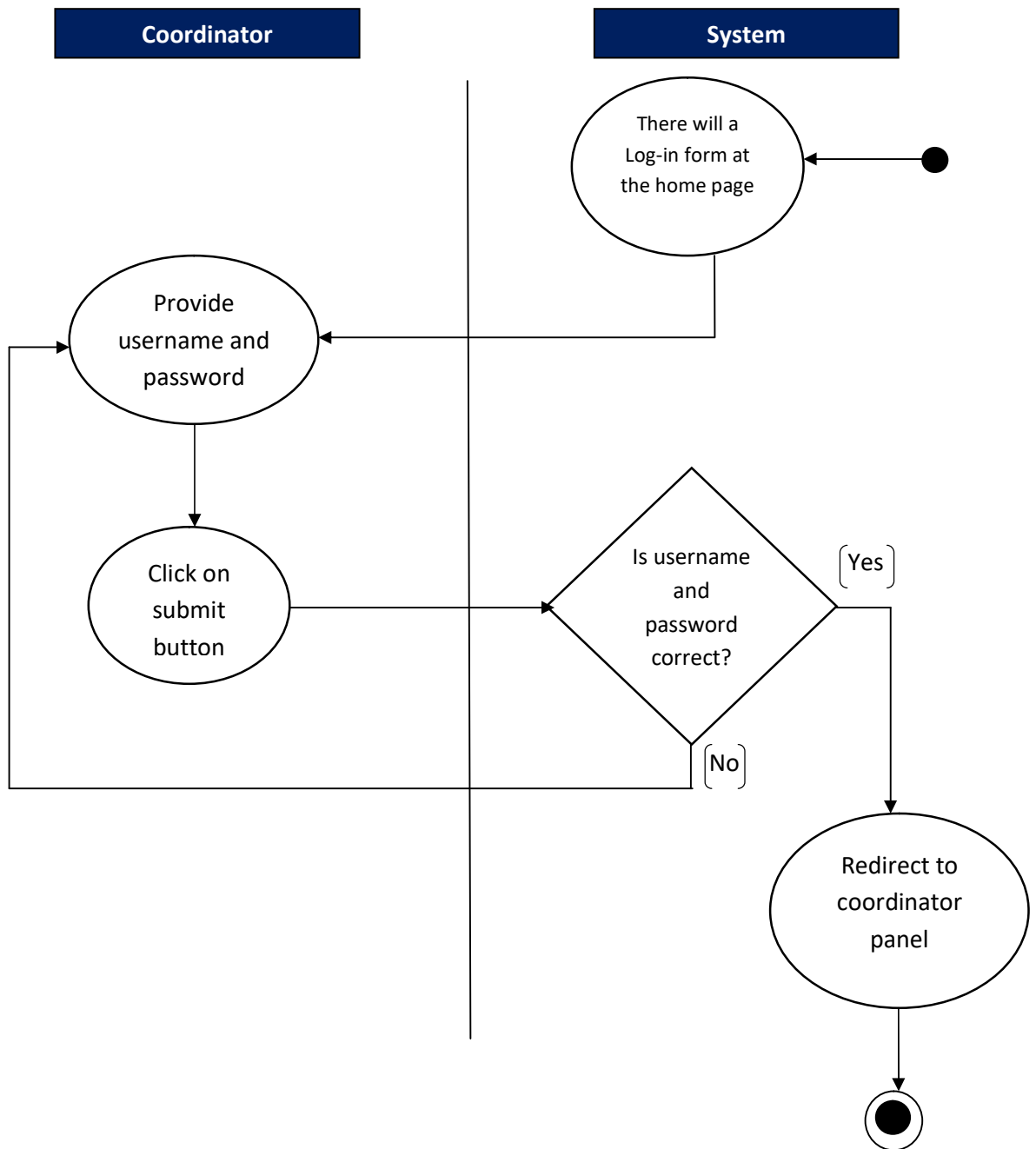


Figure-11: Swim lane diagram for log in system.

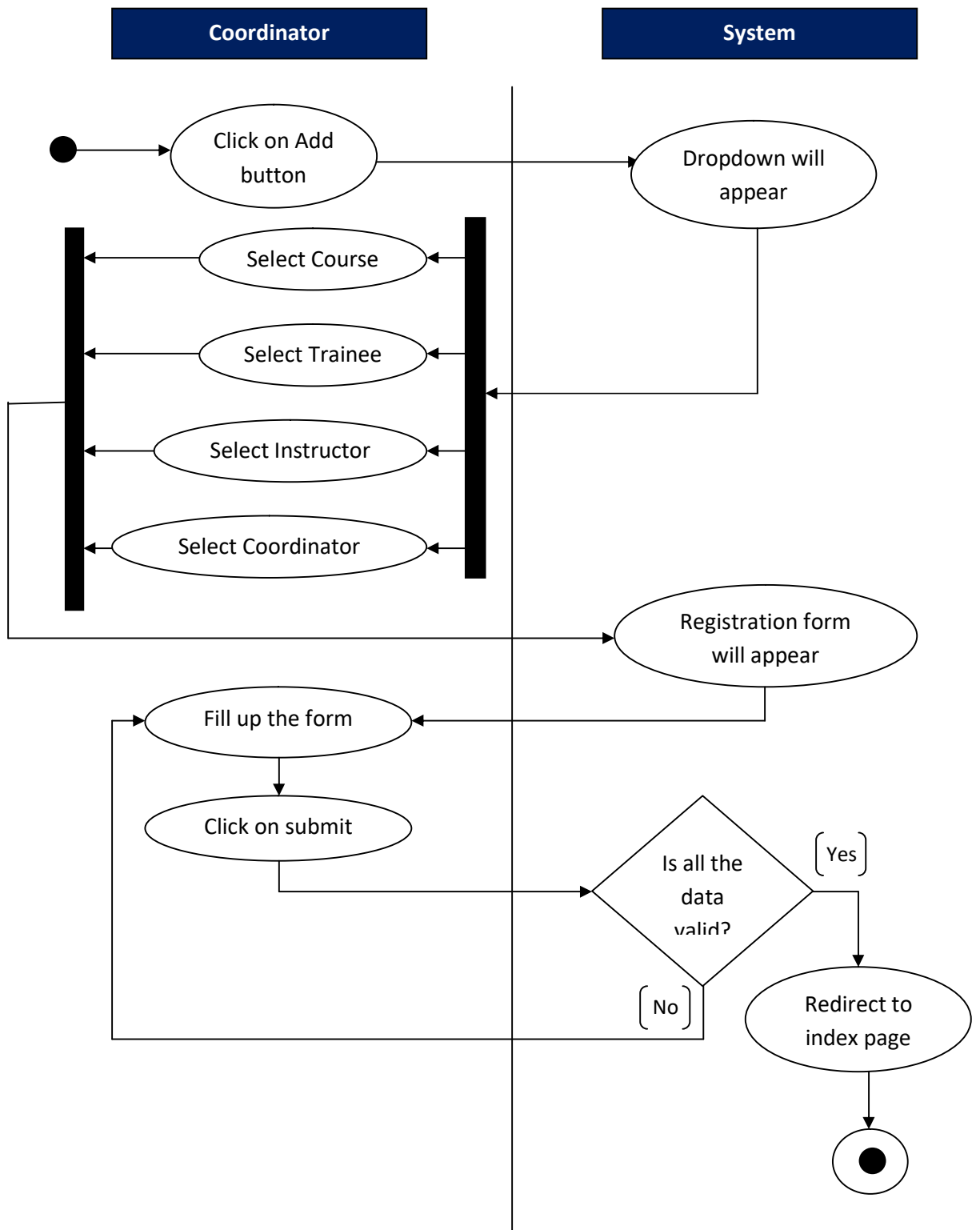


Figure-12: Swim lane diagram for registration system.

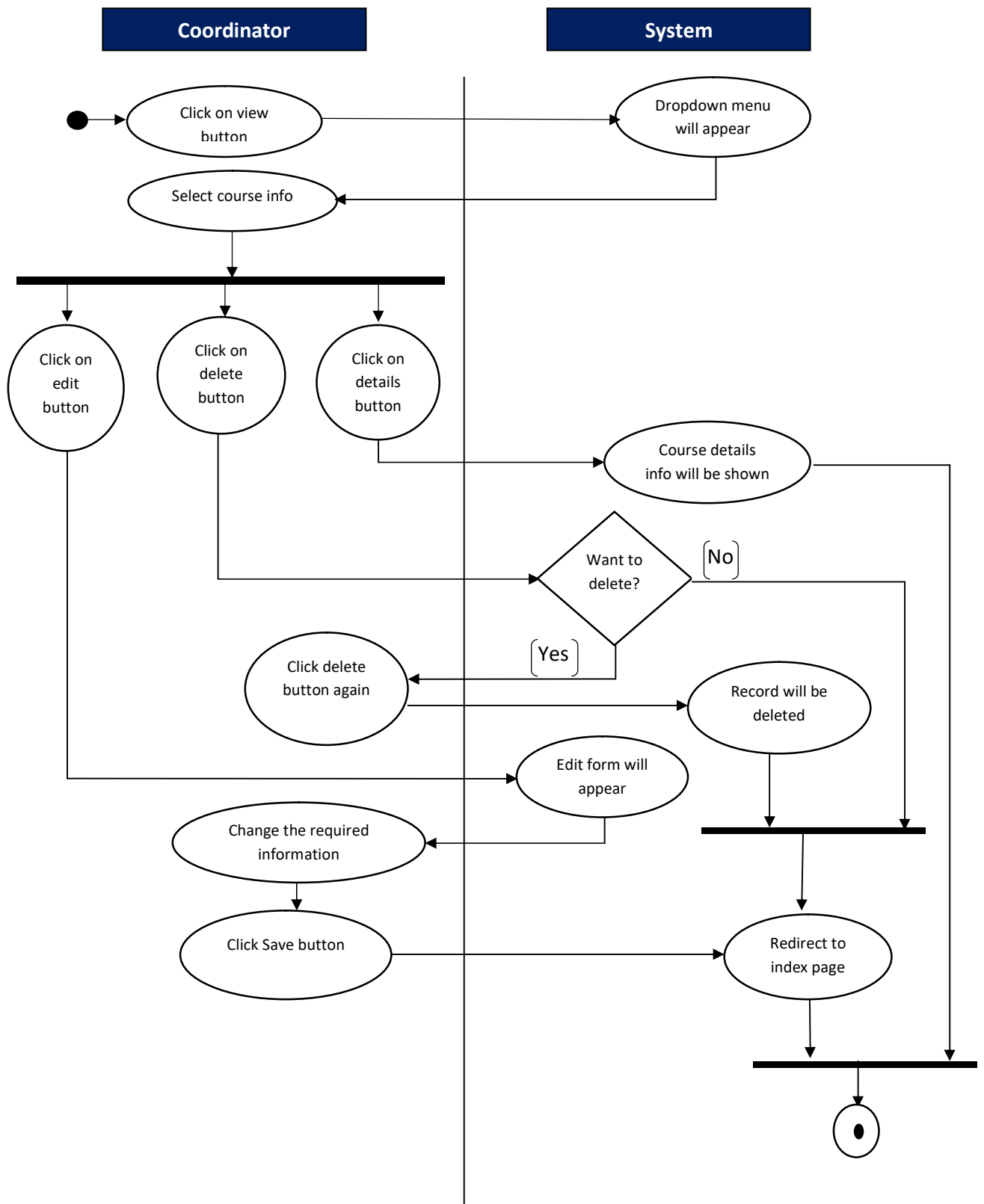


Figure-13: Swim lane diagram for managing course information.

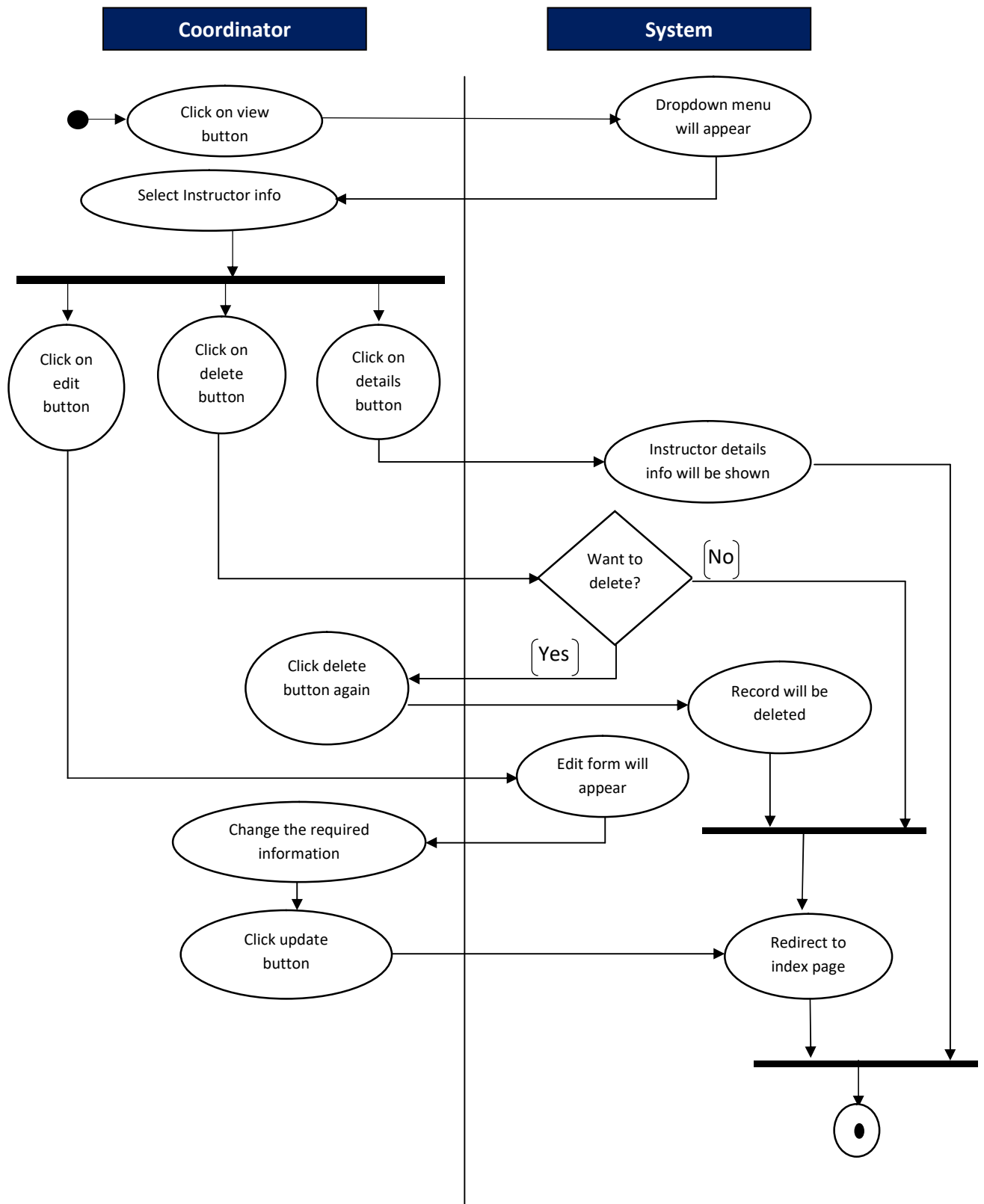


Figure-15: Swim lane diagram for managing instructor information.

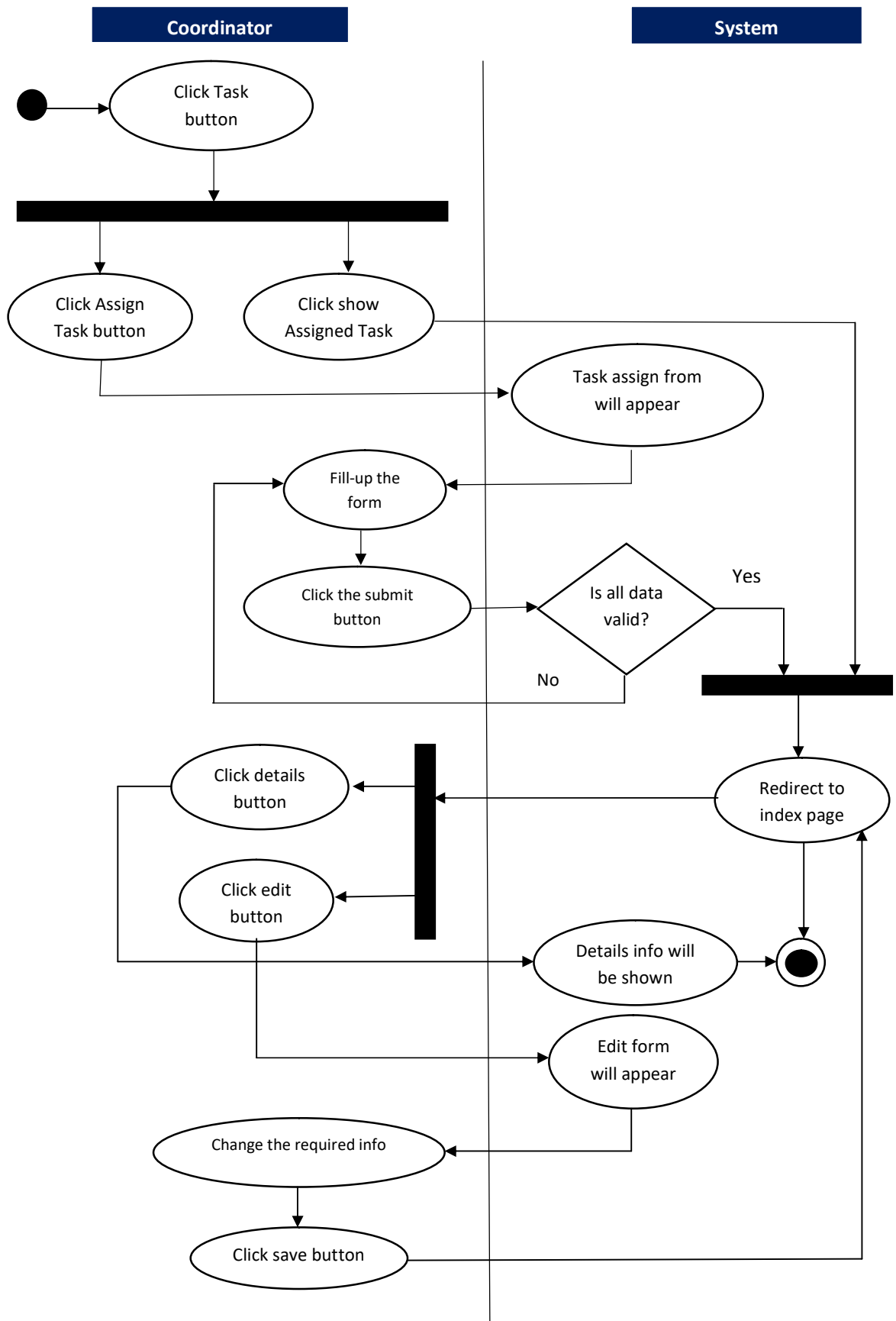


Figure-16: Swim lane diagram for managing Task.

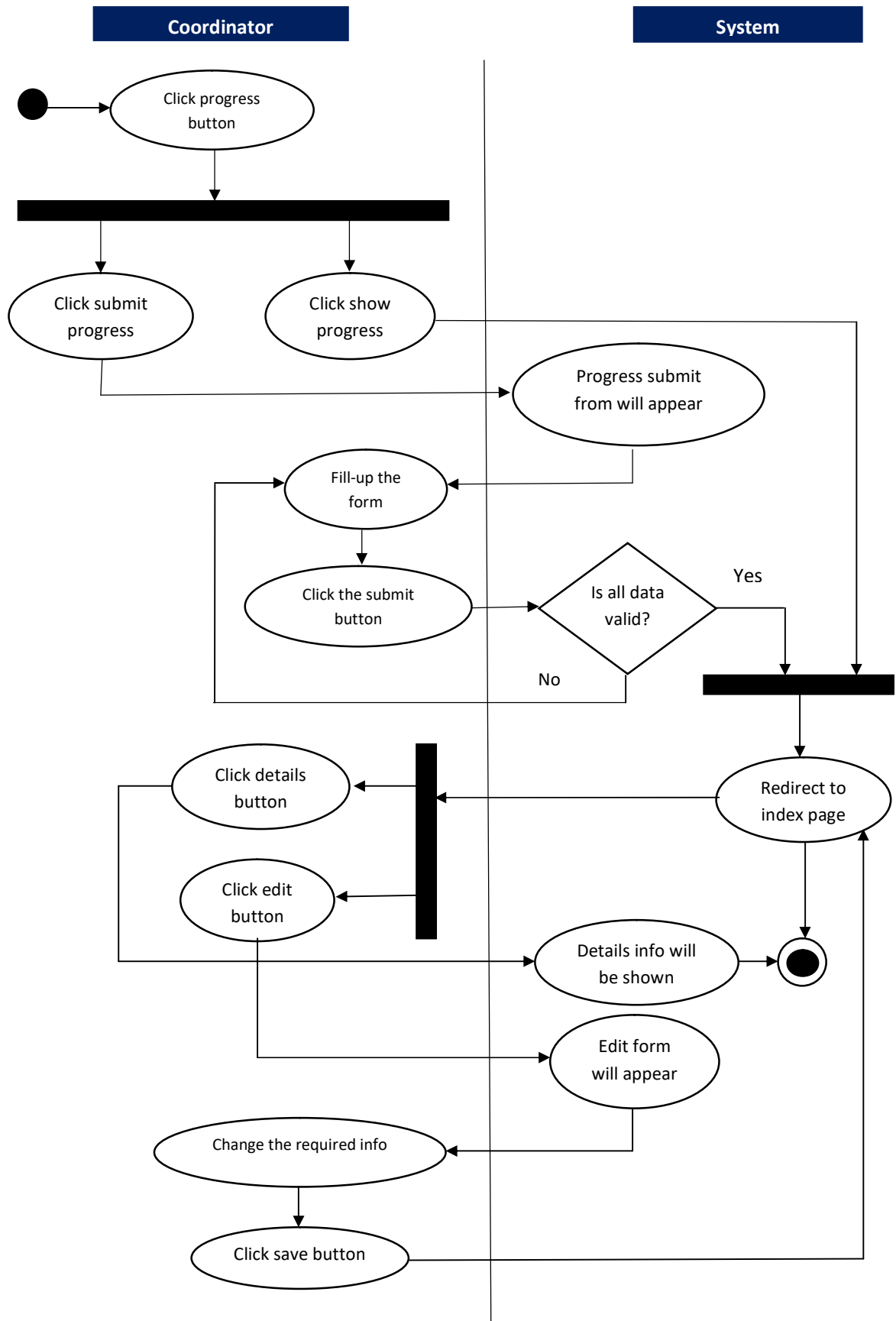


Figure-17: Swim lane diagram for tracking progress.

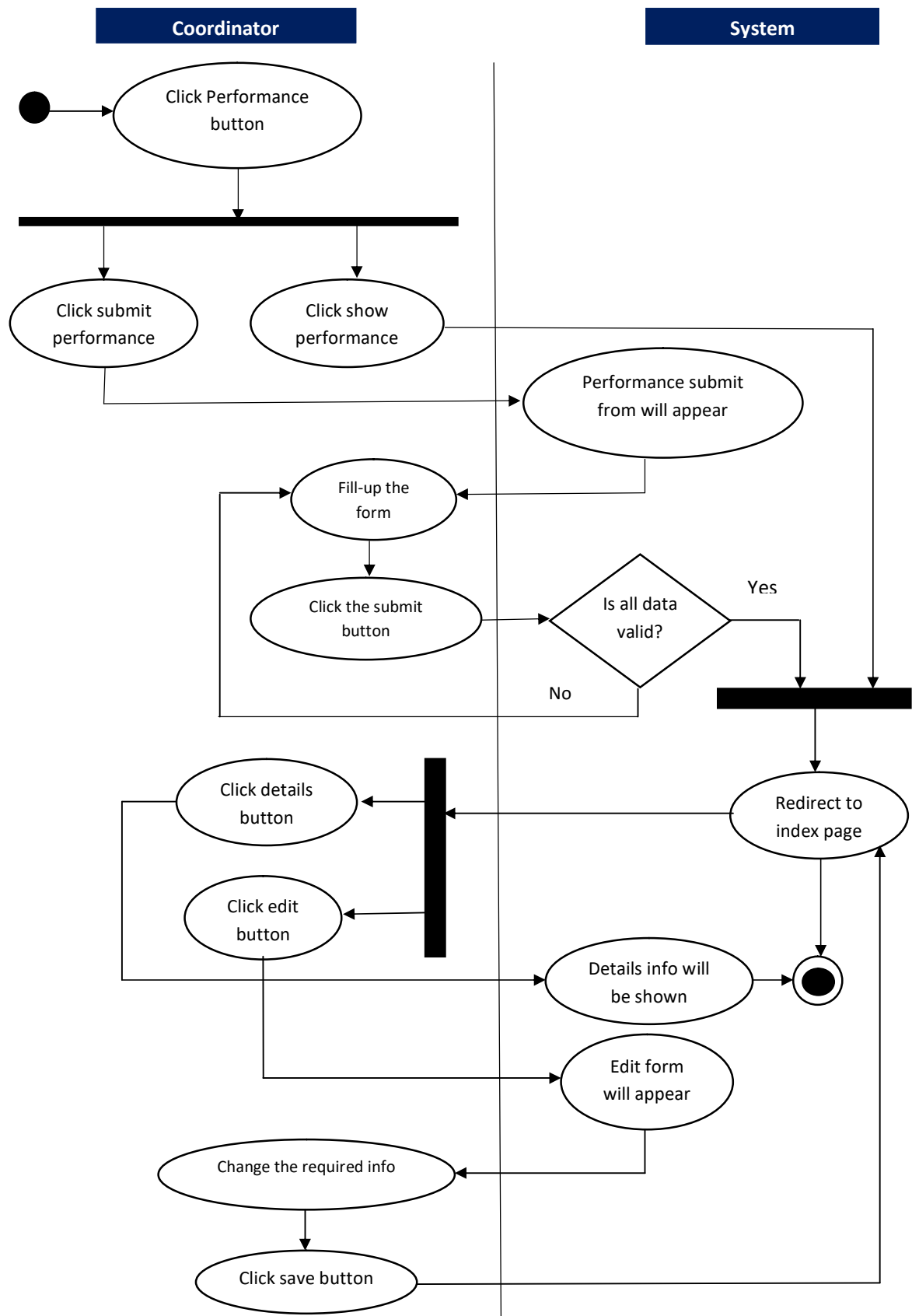


Figure-18: Swim lane diagram for tracking progress.

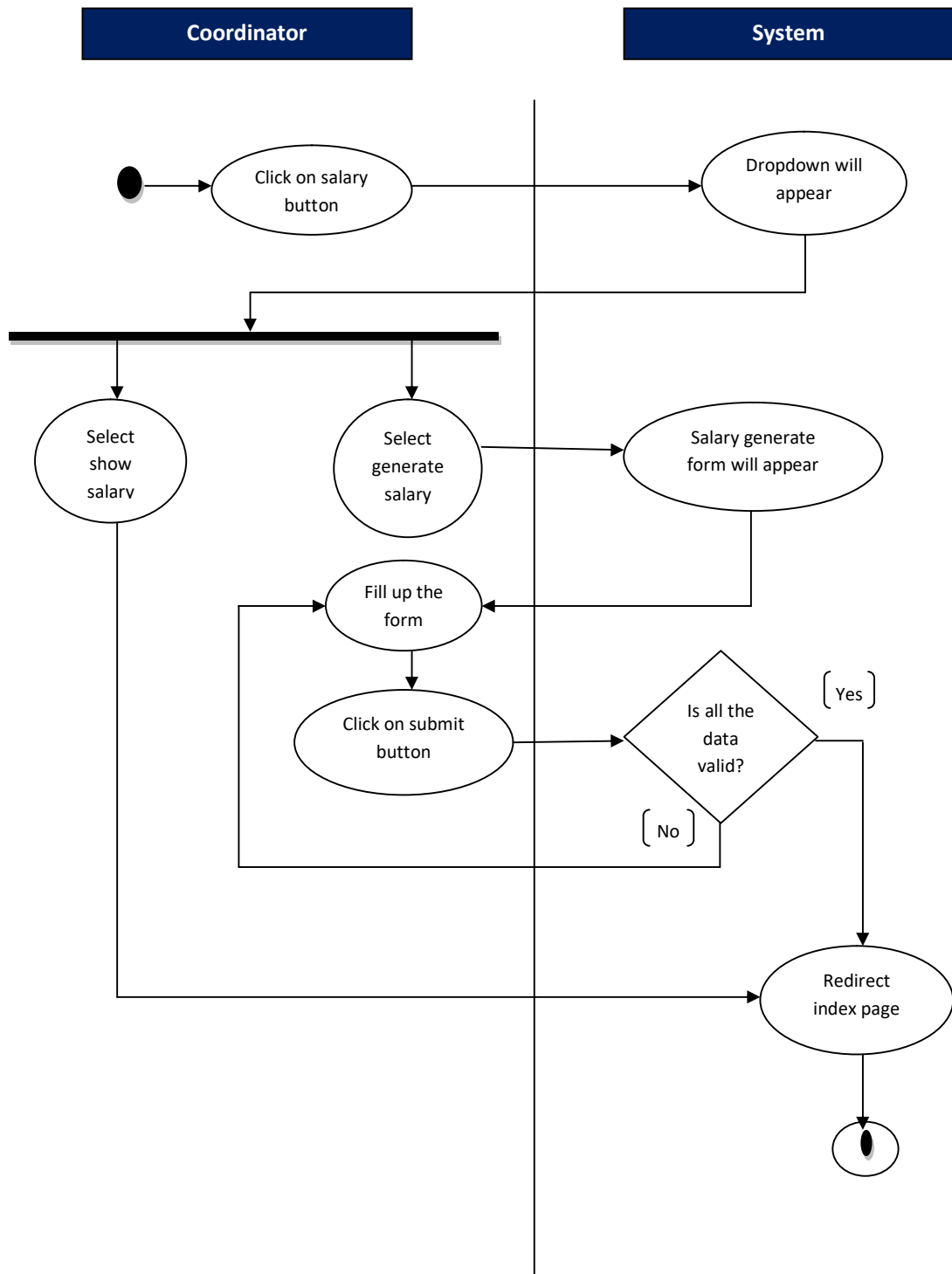


Figure-19: Swim lane diagram for managing salary.

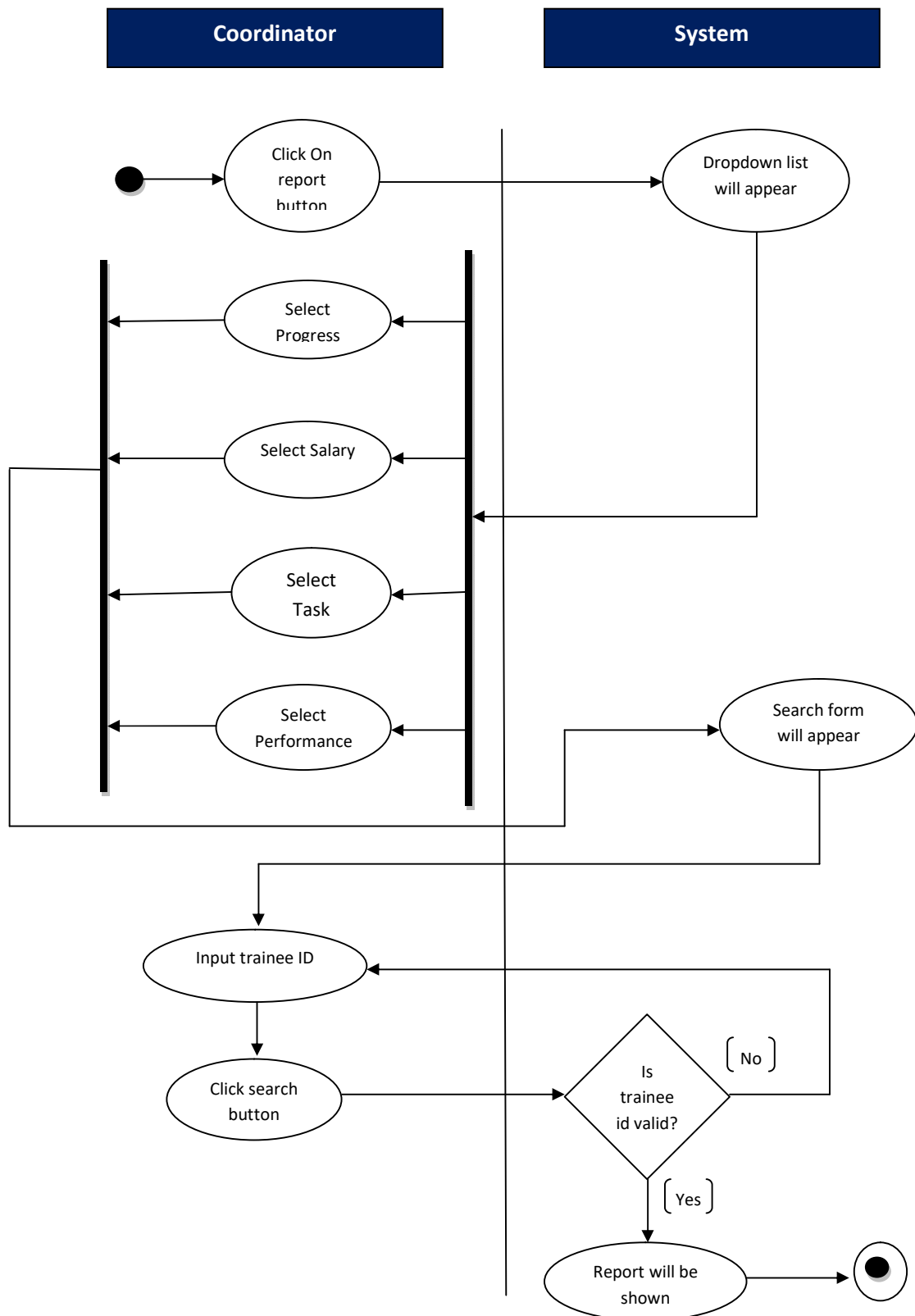


Figure-20: Swim lane diagram for managing report.

Class Diagram

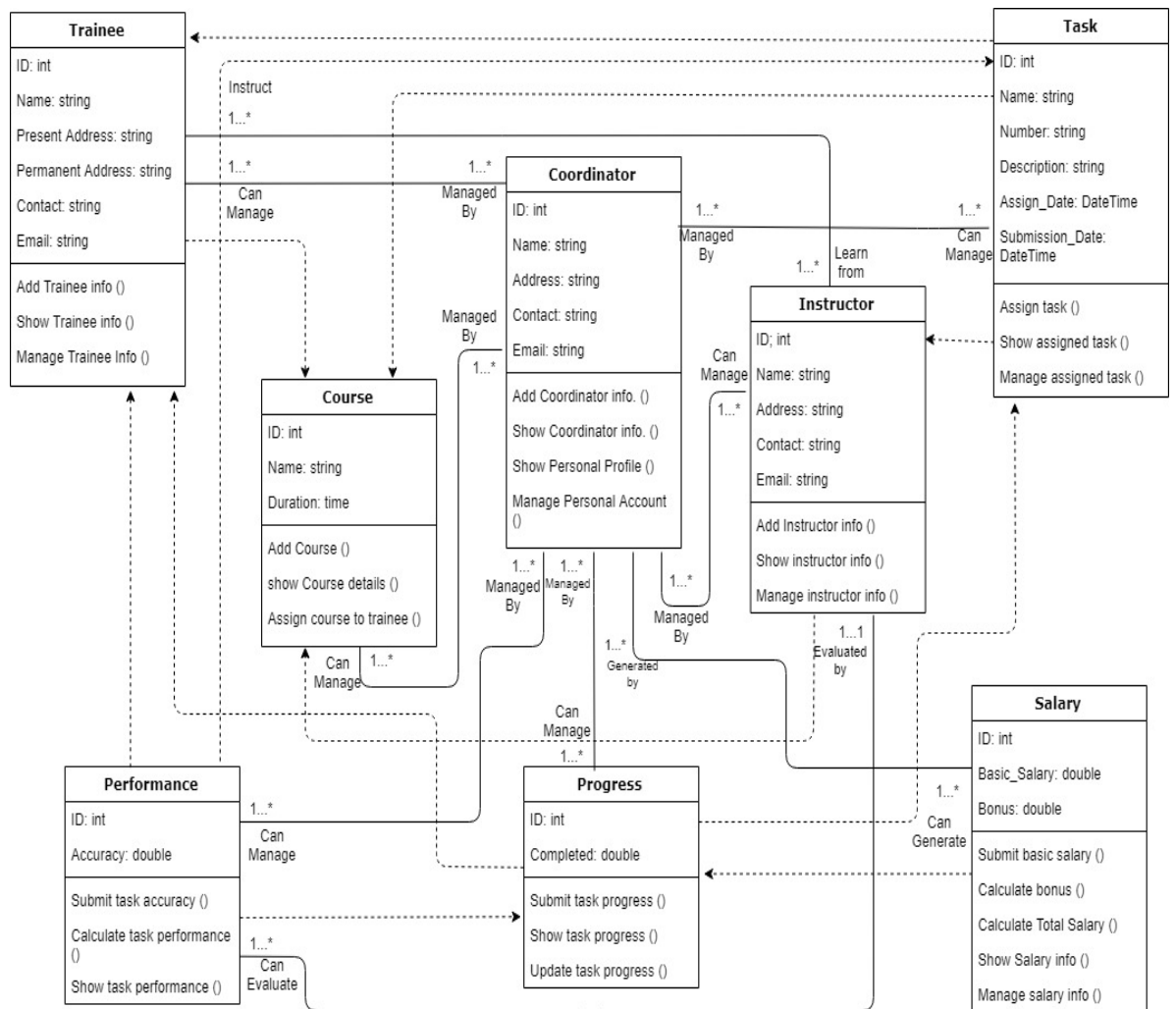


Figure-21: Class Diagram.

Project Management

Risk Identification

Table-09: Risk identification table

Risk Type	Possible Risk
People	<ul style="list-style-type: none">• Core Members are ill or unavailable at crucial moment of the project• Resignation of any team member• Lack of training for the stuff
Organizational	<ul style="list-style-type: none">• Accidentally damage of organization• Financial issue can make bad effect to the project budget• Shitting the organization can hamper time at the project
Tools	<ul style="list-style-type: none">• The supporting software stop working can be major issue in building a software• The data of software get lost
Requirements	<ul style="list-style-type: none">• The customer changing the requirements after completing the project• Misconception of given requirements
Estimation	<ul style="list-style-type: none">• Wrong estimation of required time• Wrong distribution of estimated time and work

Risk Analysis

Table-10: Risk analysis table.

Risk	Probability	Effects
Core Members are ill or unavailable at crucial moment of the project	Moderate	Serious
Resignation of any team member	Low	Catastrophic
Lack of training for the stuff	High	Catastrophic
Accidentally damage of organization	Low	Catastrophic
Financial issue can make bad effect to the project budget	Moderate	Serious
Shitting the organization can hamper time at the project	Low	Serious
The supporting software stop working can be major issue in building a software	Low	Serious
The data of software get lost	Low	Catastrophic
The customer changing the requirements after completing the project	Moderate	Serious
Misconception of given requirements	Low	Tolerable
Wrong estimation of required time	Moderate	Serious
Wrong distribution of estimated time and work	Moderate	Serious

Project Planning and Scheduling

Function point estimation

Table-11: Input Output table.

SL No.	Functionality	Input	Output
1	Training coordinator can log-in to the system	Provide username and password, click login button	Redirect to the Coordinator panel
2	Coordinator will manage his own information	Click on settings button, select profile menu, select Account menu	Coordinator Name, Address, Contact number, Email, username, password
3	Coordinator Name, Address, Contact number, Email, username, password	Click on View button, select Coordinator info	Coordinator Name, Address, Contact number, Email
4	Coordinator can manage all the registration system	Click on Add button , (select Add Course or select Add Trainee or select Add Instructor, Add Coordinator), provide the required data in the registration form, click on submit button	(Course Name, Course Duration), (Trainee Name, Address, Contact number, Email, Course Name), (Instructor Name, Address, Contact number, Email), (Coordinator Name, Address, Contact number, Email)
5	Coordinator can manage trainee information	Click on View button, select Trainee info, click on Edit button, change the required info, click save, click on Details button, click on Delete button	Trainee Name, Address, Contact number, Email, Course Name
6	Coordinator can manage instructor information	Click on View button, select Instructor info, click on Edit button, change the required info, click save, click on Details	Instructor Name, Address, Contact number, Email

		button, click on Delete button	
7	Coordinator can manage course information	Click on View button, select Course info, click on Edit button, change the required info, click save, click on Details button, click on Delete button	Course Name, Course Duration
8	Coordinator can assign the task	Click on Task button, select Assign Task menu, provide the required data, click on Assign button	Trainee Name, Instructor Name, Task Name, Task number, Task Description, Assign Date, Submission Date
9	Coordinator can see the assigned task information	Click on Task button, select Show Assigned Task menu	Trainee Name, Instructor Name, Task Name, Task number, Task Description, Assign Date, Submission Date
10	Coordinator can track the task progress	Click on Progress button, select Submit Task Progress, provide the required information, click on submit, click on Edit button, update the progress, click on save button	Trainee name, Task Name, Task number, Progress
11	Coordinator can manage the task performance	Click on Performance button, select Submit Task Performance, provide the Required information, click on submit, select Show Task Performance , provide Trainee Id, click search	Trainee Name, Instructor Name, Task Name, Task number, Progress, Accuracy, Performance

12	Coordinator can manage the Trainee salary	Click on Salary button, select Generate Salary, provide the required information, click on submit, select show salary, provide Trainee Id, click on search	Trainee name, Basic Salary, Bonus, Date, Total Salary
13	Coordinator can generate all the reports (Task, progress, Performance, Salary)	Click on Report button, (Select Task Report, select Progress Report, select Performance Report, select Salary Report), Provide Trainee Id, click on search button	Trainee Name, Instructor Name, Task Name, Task number, Task Description, Assign Date, Submission Date, Progress, accuracy, performance, Basic Salary, Bonus, Date, Total Salary

Table-12: Identifying complexity for transaction function.

SL No.	Transaction Functions	Fields/File involvement	FTR	DET
1	Training coordinator can log-in to the system (EI)	Fields- username, password; File- LogIn	1	2
2	Coordinator will manage his own information (EI)	Fields-Name, Address, Contact No, Email, username, password; File- Coordinator, LogIn	2	6
3	Training coordinator can see other training coordinator's basic information (EQ)	Fields-Name, Address, Contact No, Email; File-Coordinator	1	4
4	Coordinator can manage all the registration system (EI)	Fields-Name, Address, Contact, Email, CourseId, Duration; File- Coordinator, Trainee, Instructor, Course	4	6
5	Coordinator can manage trainee information (EI)	Fields-Name, Address, Contact, Email, Course Name; File-Trainee, Course	2	5
6	Coordinator can manage instructor information (EI)	Fields-Name, Address, Contact, Email; File-Instructor	1	4
7	Coordinator can manage course information (EI)	Fields-Name, Duration; File-Course	1	2
8	Coordinator can assign the task (EI)	Fields-Trainee Name, Instructor Name, Task Name, Task number, Task Description, Assign Date, Submission Date; File-Trainee, Instructor, Task	3	7
9	Coordinator can see the assigned task information (EQ)	Fields-Trainee Name, Instructor Name, Task Name, Task number, Task Description, Assign Date, Submission Date; File-Trainee, Instructor, Task	3	7
10	Coordinator can track the task progress (EI)	Fields-Trainee Name, Task number, Completed, Date; File- Trainee, Task, Progress	3	4
11	Coordinator can manage the task performance (EI)	Fields-Trainee Name, Instructor Name, Task number, Progress Id, Accuracy; File-Trainee, Instructor, Task, Progress, Performance	5	5
12	Coordinator can manage the Trainee salary (EI)	Fields-Trainee Name, Performance Id, Basic Salary, Bonus, Total Salary; File- Trainee, Performance, Salary	3	5

13	Coordinator can generate all the reports (Task, progress, Performance, Salary) (E0)	Fields-Trainee Name, Address, Contact, Email, Instructor Name, Task Name, Task number, Description, Assign Date, Submission Date, Progress, Accuracy, Performance, Basic Salary, Bonus, Total Salary; File-Trainee, Instructor, Task, Progress, Performance, Salary	6	16
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Table-13: Identifying complexity for data function.

SL No.	Data Functions	Fields/File involvement	RET	DET
1	Coordinator (ILF)	Fields-Name, Address, Contact, Email	1	4
2	LogIn (ILF)	Fields-username, password	1	2
3	Course (ILF)	Fields- Name, Duration	1	2
4	Trainee (ILF)	Fields- Name, Address, Contact, Email, Course Name	1	5
5	Instructor (ILF)	Fields- Name, Address, Contact, Email	1	4
6	Task (ILF)	Fields- Name, number, Description, Assign Date, Submission Date, Trainee Name, Instructor Name	1	7
7	Progress (ILF)	Fields- Trainee Name, Task number, Date, Completed	1	4
8	Performance (ILF)	Fields-Trainee Name, Instructor Name, Task number, Progress Completed, Accuracy, Performance	1	6
9	Salary (ILF)	Fields- Trainee Name, Performance, Basic Salary, Bonus, Total Salary	1	5

Table-14: Unadjusted function point estimation for transaction function.

SL No.	Transaction Functions	FTR	DET	Complexity	UFP	Total UFP
1	Training coordinator can log-in to the system (EI)	1	2	Low	3	59
2	Coordinator will manage his own information (EI)	2	6	Average	4	
3	Training coordinator can see other training coordinator's basic information (EQ)	1	4	Low	3	
4	Coordinator can manage all the registration system (EI)	4	6	High	6	
5	Coordinator can manage trainee information (EI)	2	5	Average	4	
6	Coordinator can manage instructor information (EI)	1	4	Low	3	
7	Coordinator can manage course information (EI)	1	2	Low	3	
8	Coordinator can assign the task (EI)	3	7	High	4	
9	Coordinator can see the assigned task information (EQ)	3	7	Average	6	
10	Coordinator can track the task progress (EI)	3	4	Average	4	
11	Coordinator can manage the task performance c (EI)	5	5	High	6	
12	Coordinator can manage the Trainee salary (EI)	3	5	High	6	
13	Coordinator can generate all the reports (Task, progress, Performance, Salary) (E0)	6	16	High	7	

Table-15: Unadjusted function point estimation for data function.

SL No.	Data Functions		RET	DET	Complexity	UFP	Total UFP
1	Coordinator (ILF)		1	4	Low	7	63
2	LogIn (ILF)		1	2	Low	7	
3	Course (ILF)		1	2	Low	7	
4	Trainee (ILF)		1	5	Low	7	
5	Instructor (ILF)		1	4	Low	7	
6	Task (ILF)		1	7	Low	7	
7	Progress (ILF)		1	4	Low	7	
8	Performance (ILF)		1	6	Low	7	
9	Salary (ILF)		1	5	Low	7	

Table-16: Performance and Environmental Impact.

SL No.	General System Characteristic	Brief Description	DI
1	Data communications	How many communication facilities are there to aid in the transfer or exchange of information with the application or system?	5
2	Distributed data processing	How are distributed data and processing functions handled?	0
3	Performance	Was response time or throughput required by the user?	3
4	Heavily used configuration	How heavily used is the current hardware platform where the application will be executed?	5
5	Transaction rate	How frequently are transactions executed daily, weekly, monthly, etc.?	
6	On-Line data entry	What percentage of the information is entered On-Line?	5
7	End-user efficiency	Was the application designed for end-user efficiency?	0
8	On-Line update	How many ILF's are updated by On-Line transaction?	0

9	Complex processing	Does the application have extensive logical or mathematical processing?	5
10	Reusability	Was the application developed to meet one or many user's needs?	1
11	Installation ease	How difficult is conversion and installation?	1
12	Operational ease	How effective and/or automated are start-up, back-up, and recovery procedures?	5
13	Multiple sites	Was the application specifically designed, developed, and supported to be installed at multiple sites for multiple organizations?	3
14	Facilitate change	Was the application specifically designed, developed, and supported to facilitate change?	2
		Total Degree of Influence (TDI)	35
		Value Adjustment Factor (VAF) =	$(.65 + (.01 \times \text{TDI}))$
			$(.65 + (.01 \times 35))$
			1

Final Calculation:

UFP =	UFP (TF) + UFP (DF)
	59+63
UFP(Total) =	122

Adjusted Function Point Estimation (AFP) =	UFP (Total) * TDI
	122*1
Adjusted Function Point Estimation (AFP) =	122

Effort for ASP* =	AFP * Productivity for ASP*	
	122*6.01	
	744.2	Person Hours
	93.025	Person Days (8 Hours Per Day)
	4.044565217	Person Months (23 Days Per Month)
	1.011141304	Months (4 person for developing the project)

Process Based Estimation

Table-17: Process based estimation table.

Function	CC	PLN	Analysis	Design	Code	Test	Total
Log In System	2	2	2	1	4	1	12
Registration System	2	1	1	1	2	1	8
Task Assign	4	2	2	1	2	1	12
Progress Tracking	2	3	2	2	2	1	12
Performance Calculation	2	3	2	2	4	1	14
Salary Generate	2	3	2	2	4	1	14
Report Generation	2	2	2	2	4	2	14
Total	16	16	13	11	22	8	86
%Effort	18.60%	18.60%	15.12%	12.79%	25.58%	9.30%	

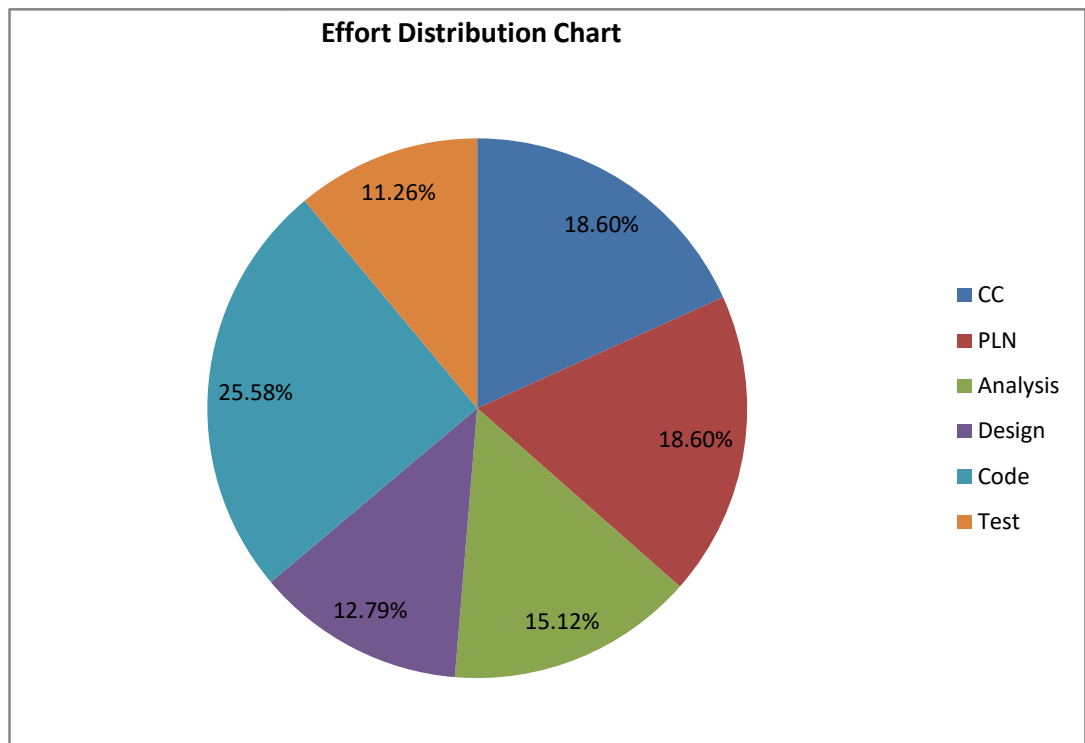
Process Based Estimation: Effort

Effort=total days/organizational Productivity

$$=86/4$$

$$=21.5 \text{ or } 26 \text{ days}$$

Effort Distribution



Project scheduling Chart

Time (in week)	Wk1	Wk2	Wk3	Wk4	Wk5	Wk6	Wk7	Wk8	Wk9	Wk10	Wk11	wk12	wk13
Activity													
CC	16 days												
PLN			16 days										
Analysis						13 days							
Design							11 days						
Code									22 days				
Test												8 days	

Cost Estimation

Table-17: Personnel Cost

Position	Salary/month	Salary/hour
System Analyst	80000	416.66
Customer Communicator	20000	104.16
Planner	60000	312.5
Risk Analyzer	60000	312.5
System Designer	50000	260.41
Coder	50000	260.41
Tester	60000	312.5
Technical Communicator	20000	104.16

N.B. Working Days per Month= 24 Days, Working Hours per Day= 8 Hours

Table-21: Accounts table.

Particulars	Taka	Total Taka
Salary- <ul style="list-style-type: none"> System Analyst Customer Communicator Planner Risk Analyzer System Designer Coder Tester Technical Communicators 	80000 20000 60000 60000 50000 50000 60000 20000	400000
Hardware Cost- <ul style="list-style-type: none"> Computer Printer 	60000 20000	80000
Software- <ul style="list-style-type: none"> Visual studio 2017 Microsoft SQL Server 2017 	7000 5000	12000
Other Costs- <ul style="list-style-type: none"> Internet Electricity bill 	500 200	700
Total		492700

Designing Data Flow Diagram

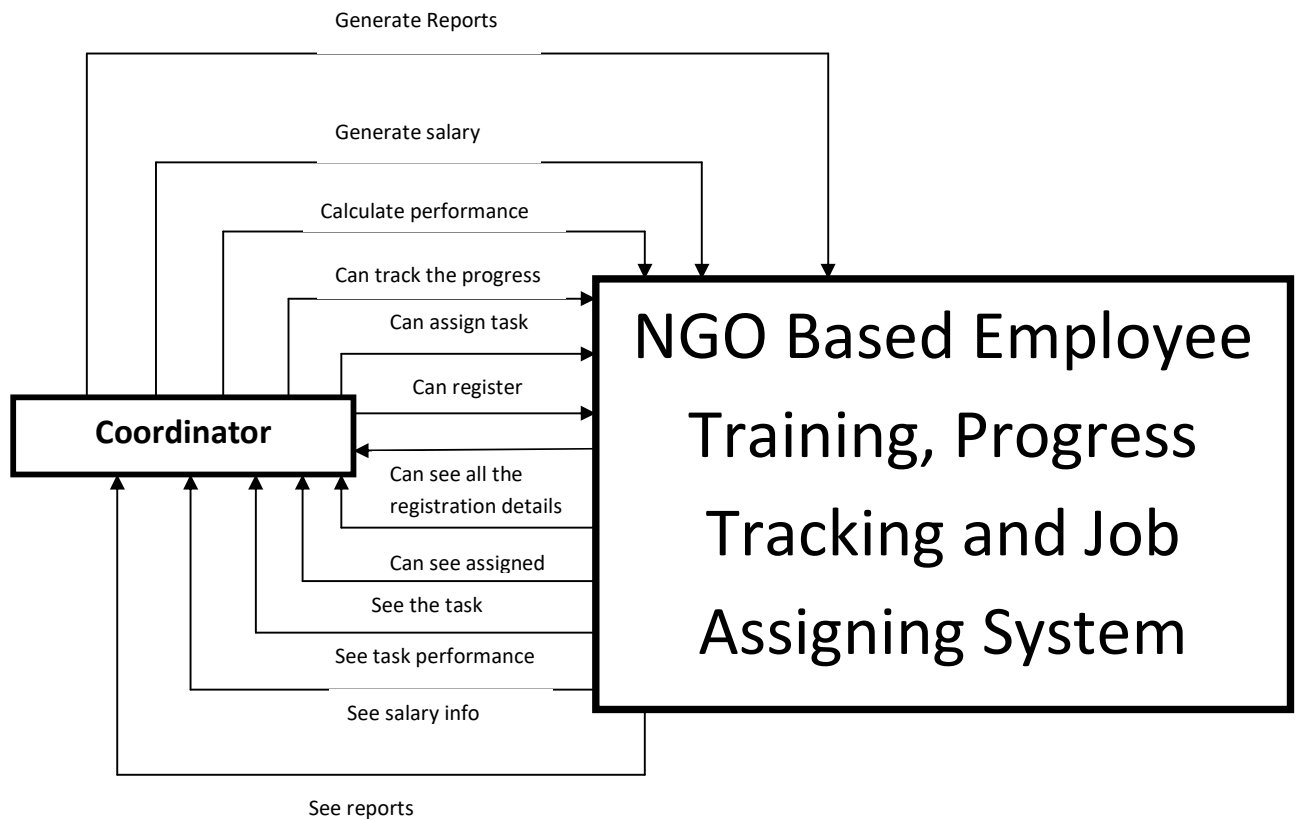


Figure-22: Context Level Diagram

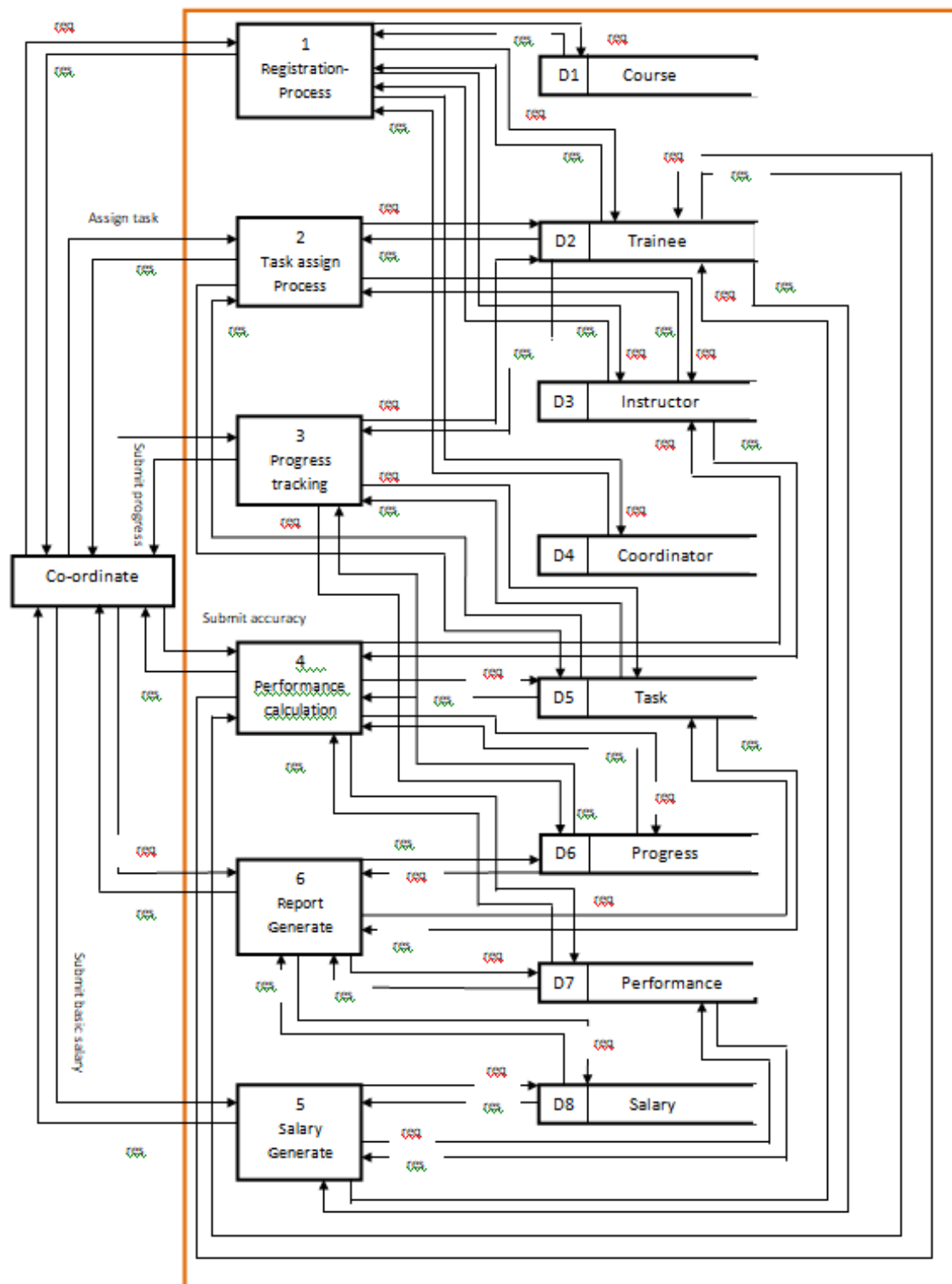


Figure-23: DFD Level-0 Diagram

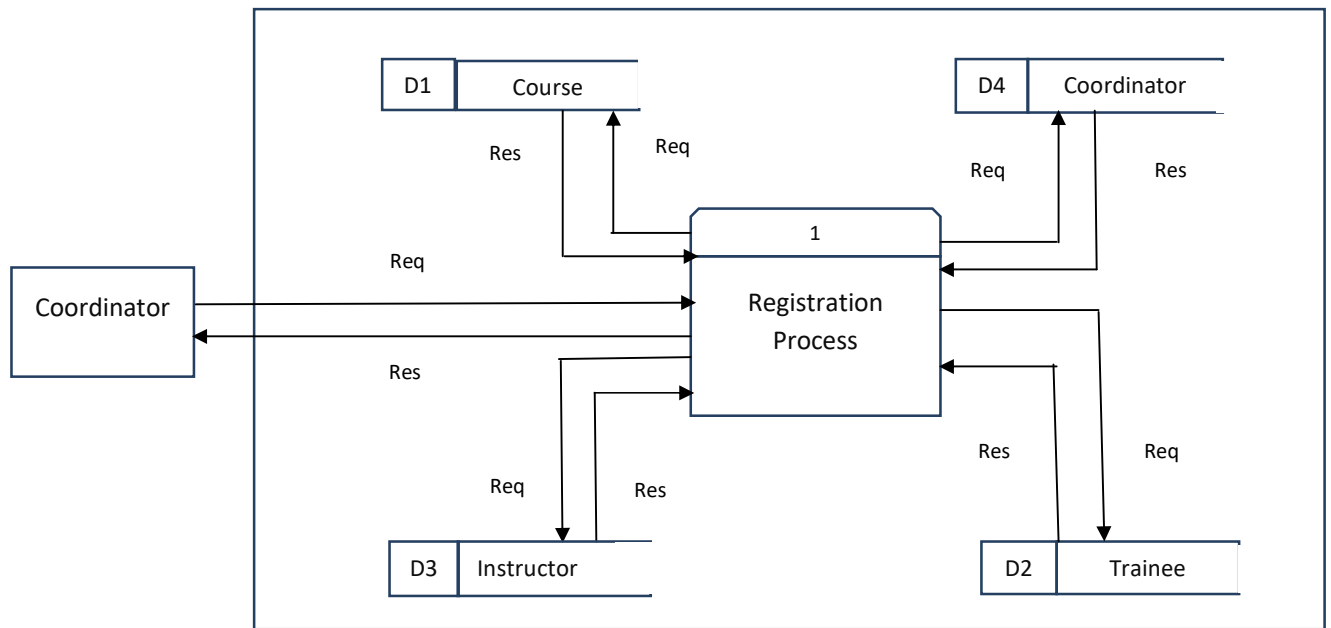


Figure-24: Level 1 Process-1(Registration Process)

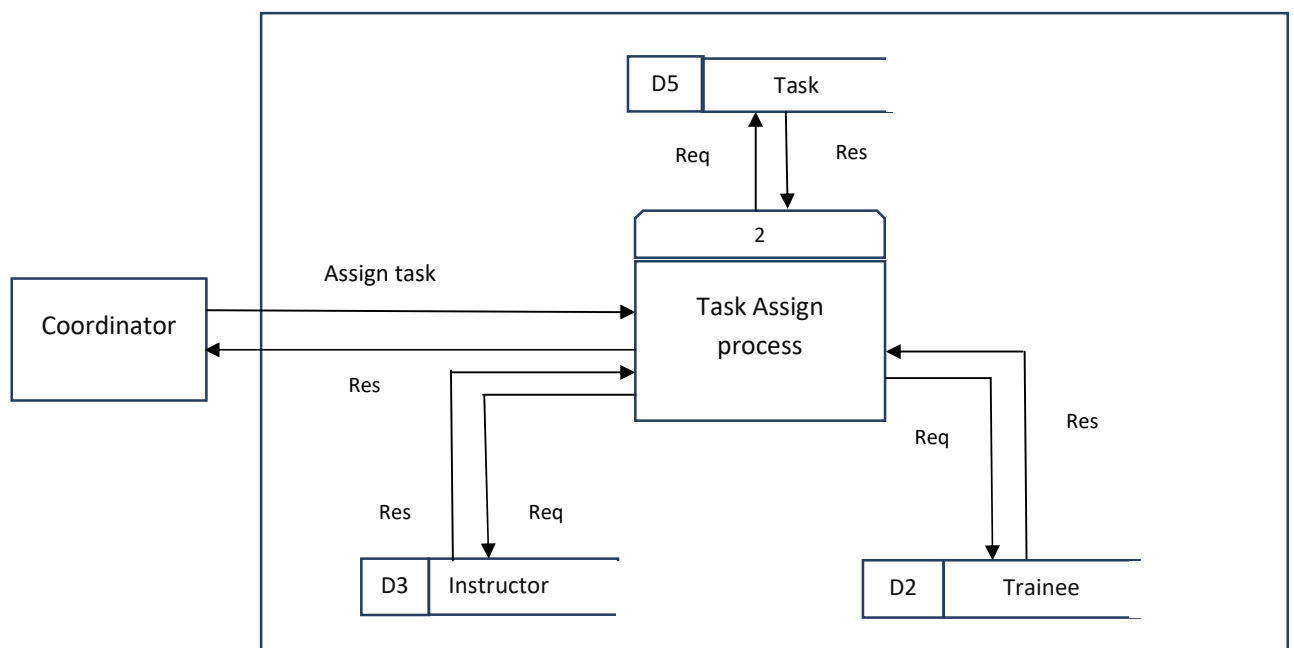


Figure-25: Level 1 Process-2(Task Assign Process)

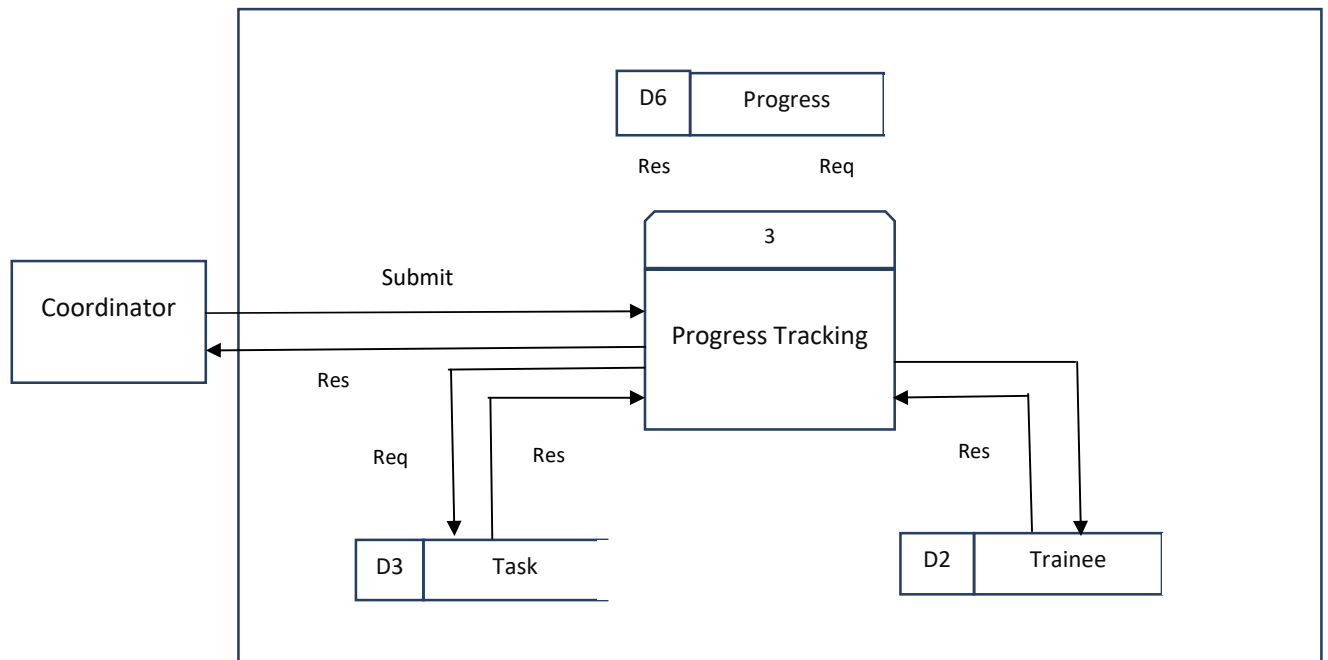


Figure-26: Level 1 Process-3(Progress Tracking)

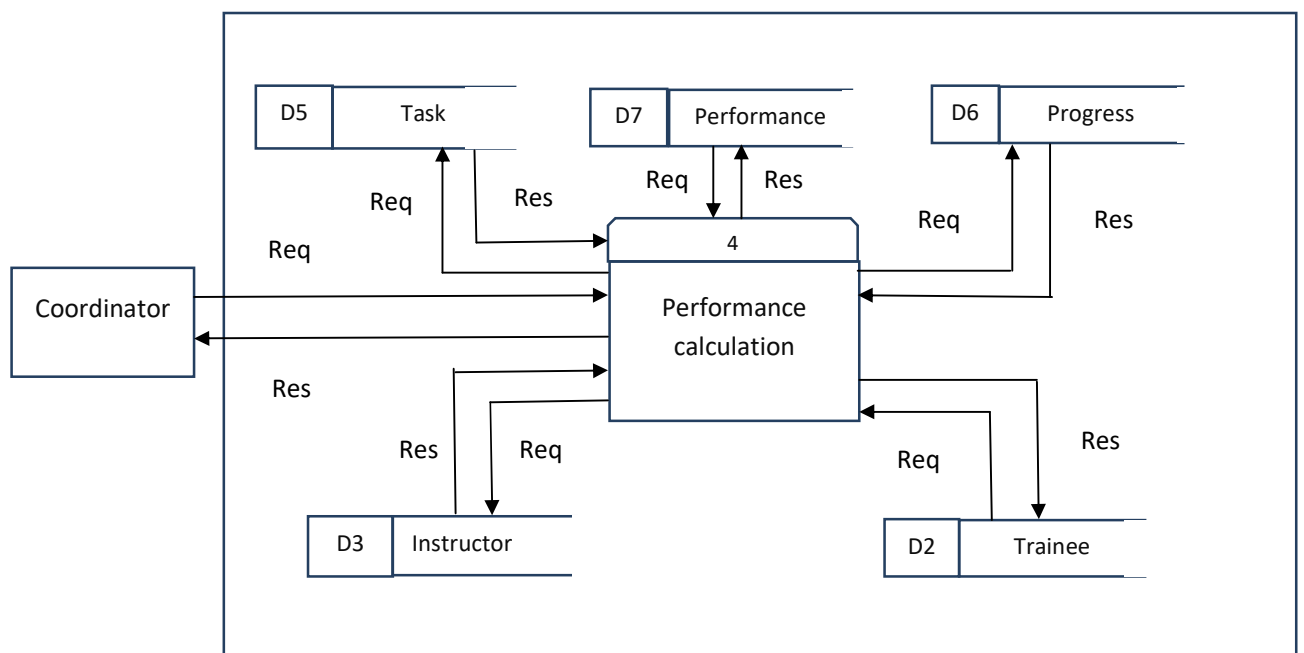


Figure-27: Level 1 Process-4(Performance Tracking)

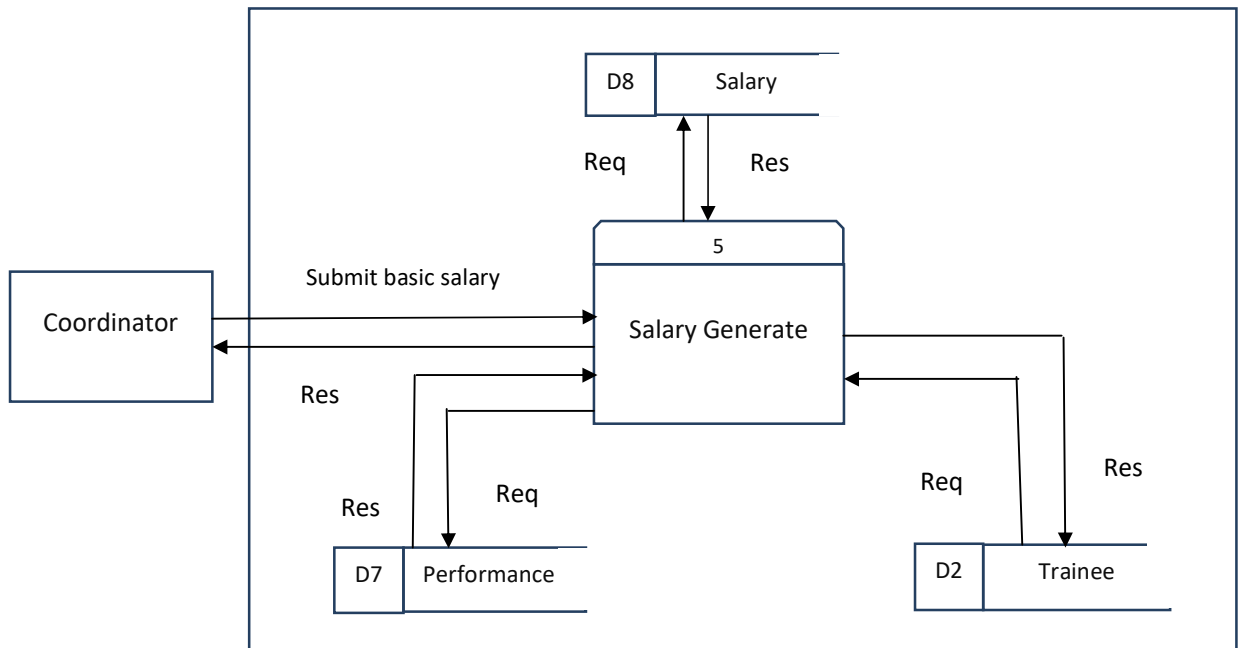


Figure-28: Level 1 Process-5(Salary Generate)

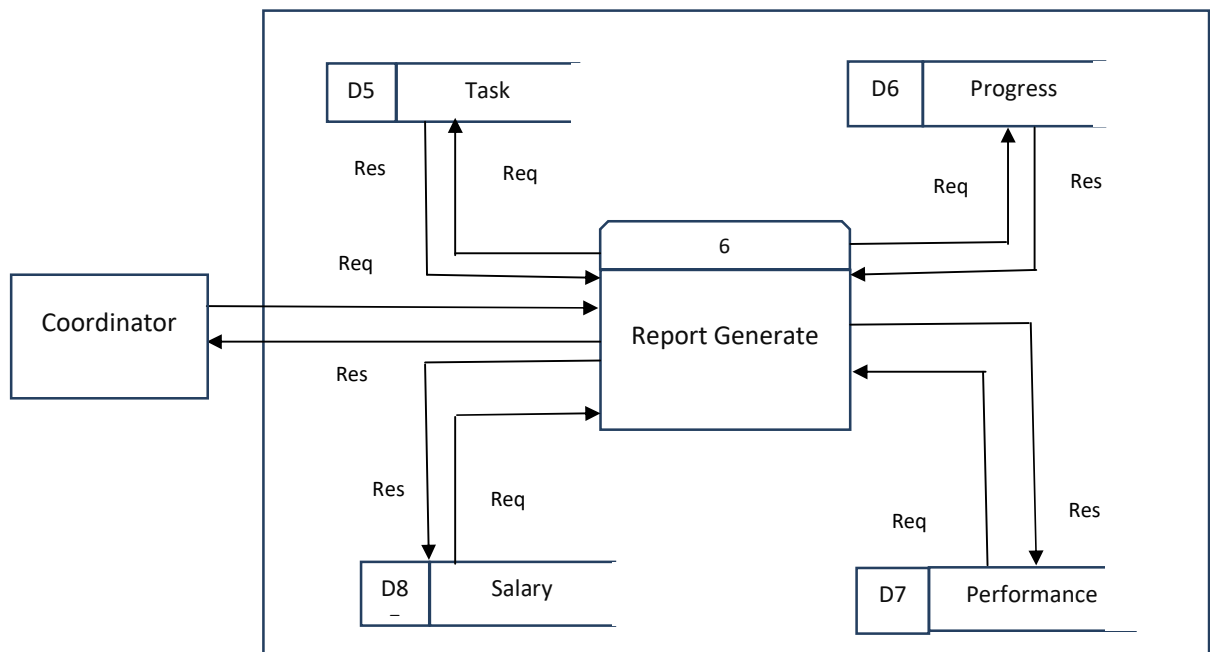
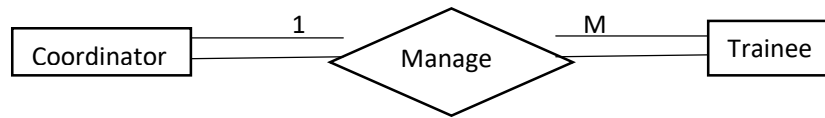


Figure-29: Level 1 Process-6(Report Generate)

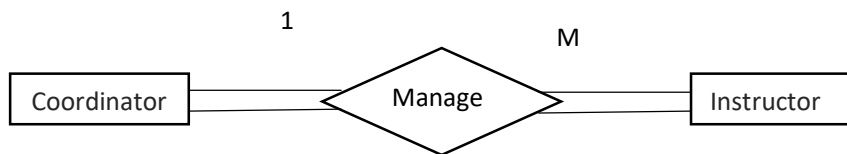
Entity Relationship Diagram



Cardinality Relation:

Left to Right: 1 Coordinator manage many Trainee

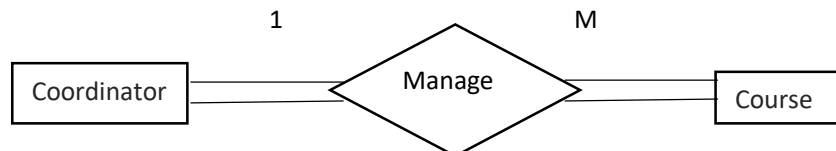
Right to Left: 1 Trainee manage by 1 Coordinator



Cardinality Relation:

Left to Right: 1 Coordinator manage many Instructor

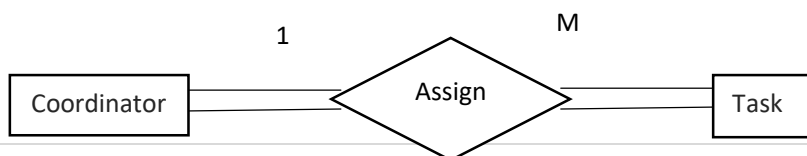
Right to Left: 1 Instructor manage by 1 Coordinator



Cardinality Relation:

Left to Right: 1 Coordinator manage many Course

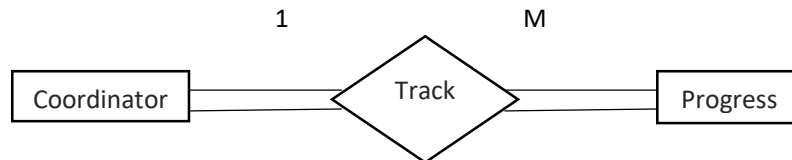
Right to Left: 1 Course manage by 1 Coordinator



Cardinality Relation

Left to Right: 1 Coordinator can assign many Task

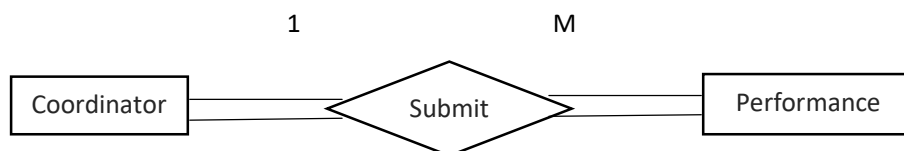
Right to Left: 1 Task assign by 1 Coordinator



Cardinality Relation:

Left to Right: 1 Coordinator can track many Progress

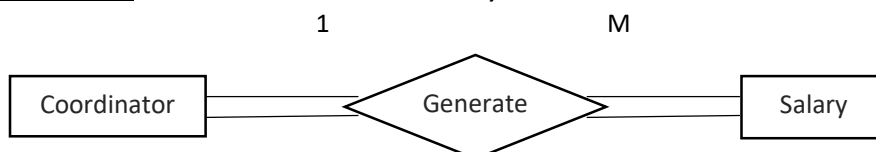
Right to Left: 1 Progress track by 1 Coordinator



Cardinality Relation:

Left to Right: 1 Coordinator can submit many performance

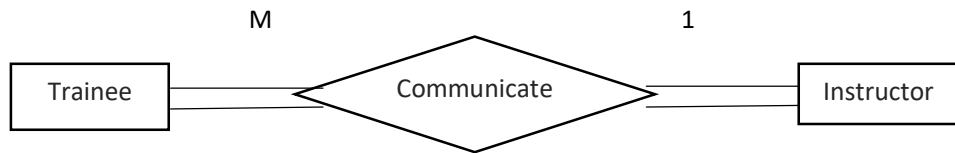
Right to Left: 1 Performance submit by 1 Coordinator



Cardinality Relation:

Left to Right: 1 Coordinator can Generate many salary

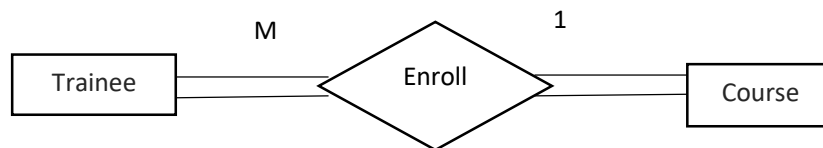
Right to Left: 1 salary Generate by 1 Coordinator



Cardinality Relation:

Left to Right: 1 Trainee can community with 1 Instructor

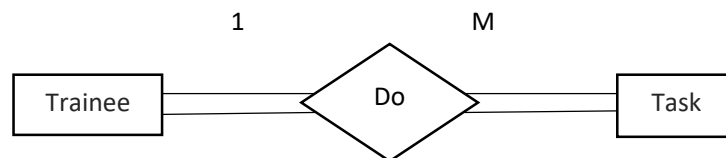
Right to Left: 1 Instructor can community with many Trainee



Cardinality Relation:

Left to Right: 1 TraineeEnroll 1 Course

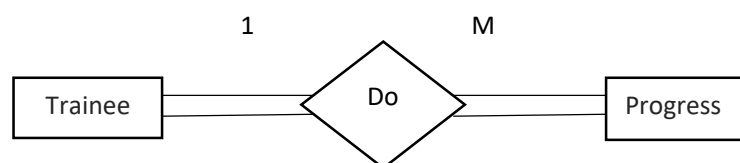
Right to Left: 1 Course Enroll by many Trainee



Cardinality Relation:

Left to Right: 1 Trainee can Do many Trainee

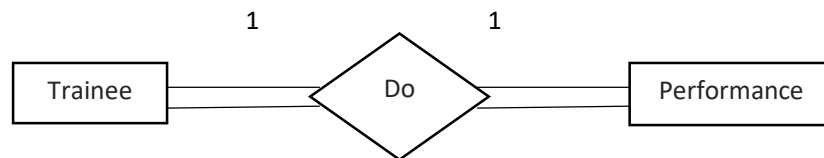
Right to Left: 1 Task Done by 1 Trainee



Cardinality Relation:

Left to Right: 1 Trainee can do many Progress

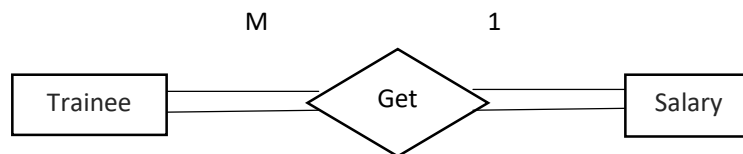
Right to Left: 1 progress Done by 1 Trainee



Cardinality Relation:

Left to Right: 1 Trainee do 1 performance

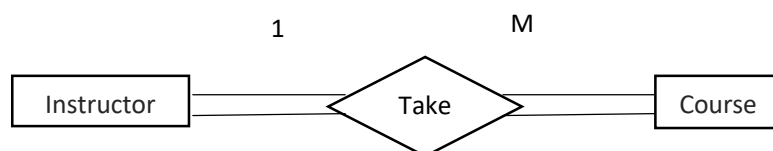
Right to Left: 1 performance is Done by 1 Trainee



Cardinality Relation:

Left to Right: 1 Trainee Get 1 Salary

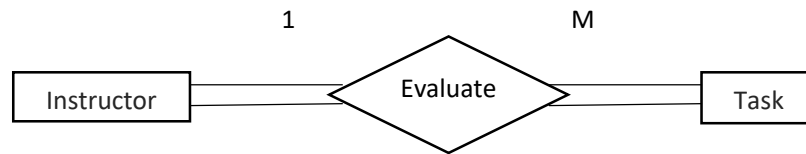
Right to Left: 1 Salary Get by many Trainee



Cardinality Relation:

Left to Right: 1 Instructor can take many course

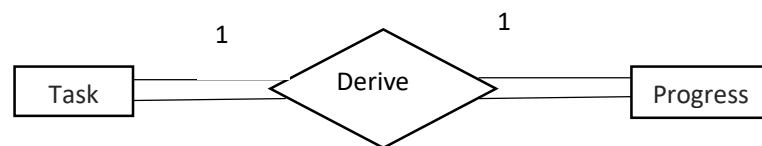
Right to Left: 1 course is taken by 1 Instructor



Cardinality Relation:

Left to Right: 1 Instructor can Evaluate many Task

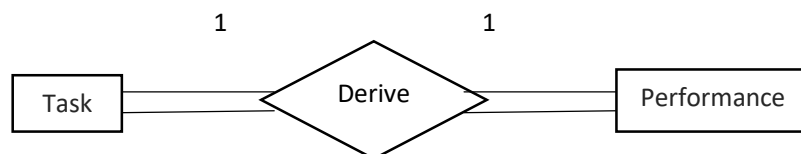
Right to Left: 1 Task is evaluated by 1 Instructor



Cardinality Relation:

Left to Right: 1 Task can derive 1 progress

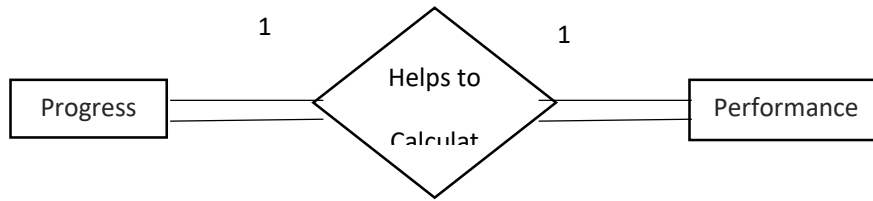
Right to Left: 1 progress is derived from 1 Task



Cardinality Relation:

Left to Right: 1 Task can derive 1 performance

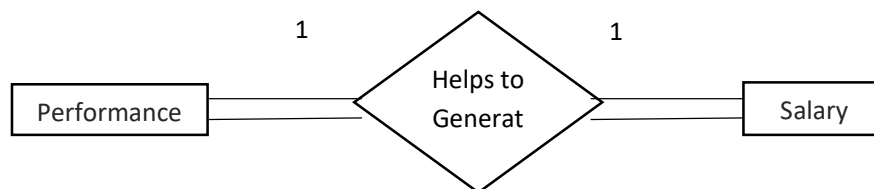
Right to Left: 1 Performance is derived from 1 Task



Cardinality Relation:

Left to Right: 1 Progress helps to calculate 1 performance

Right to Left: 1 Performance calculate from 1 Progress



Cardinality Relation:

Left to Right: 1 Performance helps to generate 1 salary

Right to Left: 1 salary is generated by 1 Performance

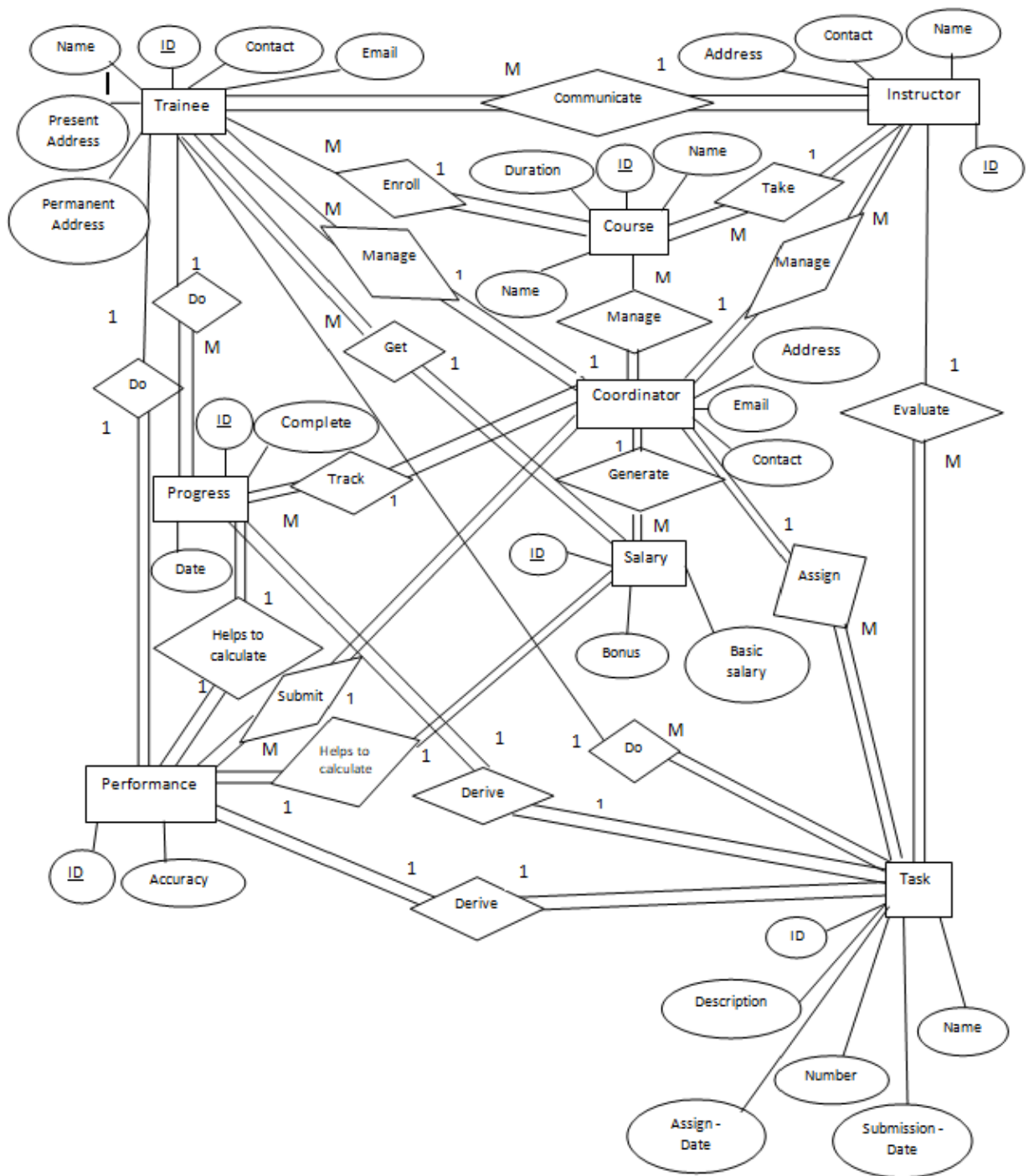


Figure-30: ERD Diagram

Testing

Test Case-01 for Log-In

User Name: Imran

Password: 1234

Status: Successful

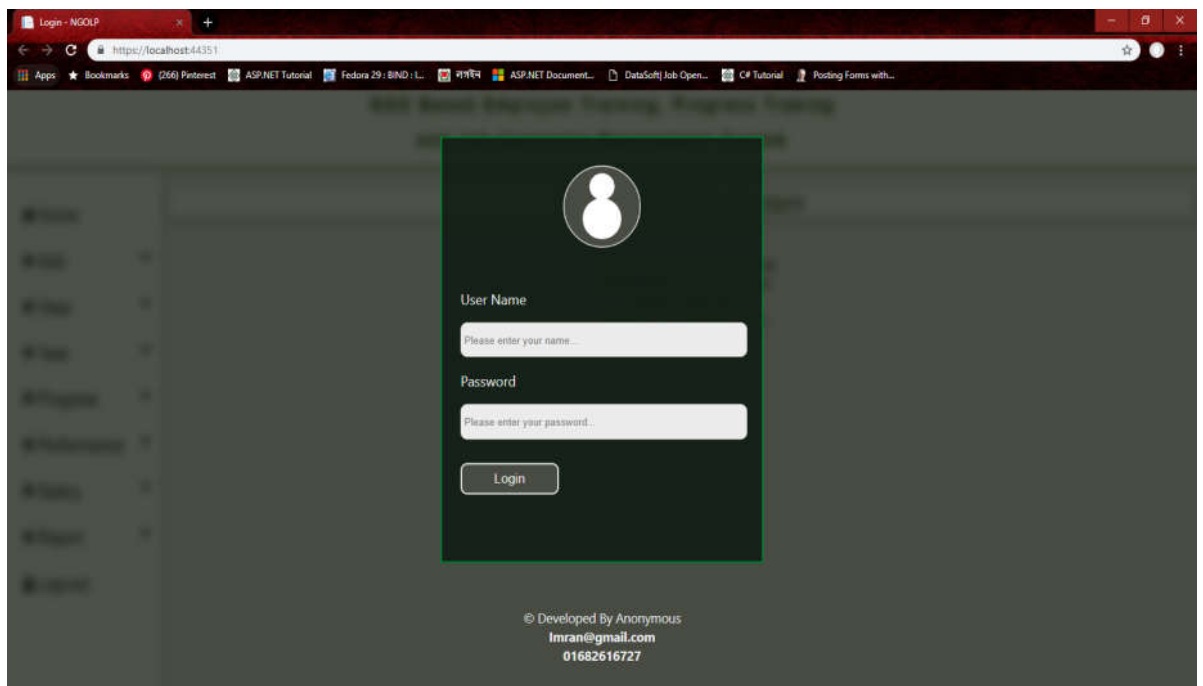
Test Case-02 for Log-In

User Name: Imran

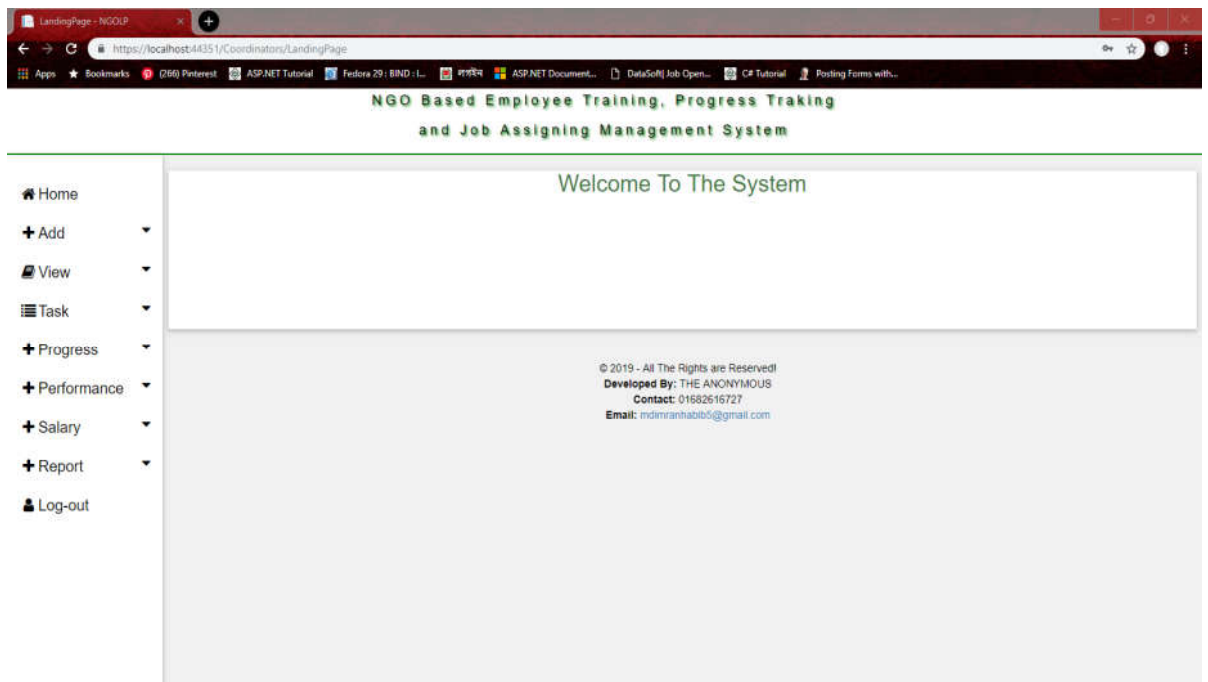
Password: 1111

Status: Failed

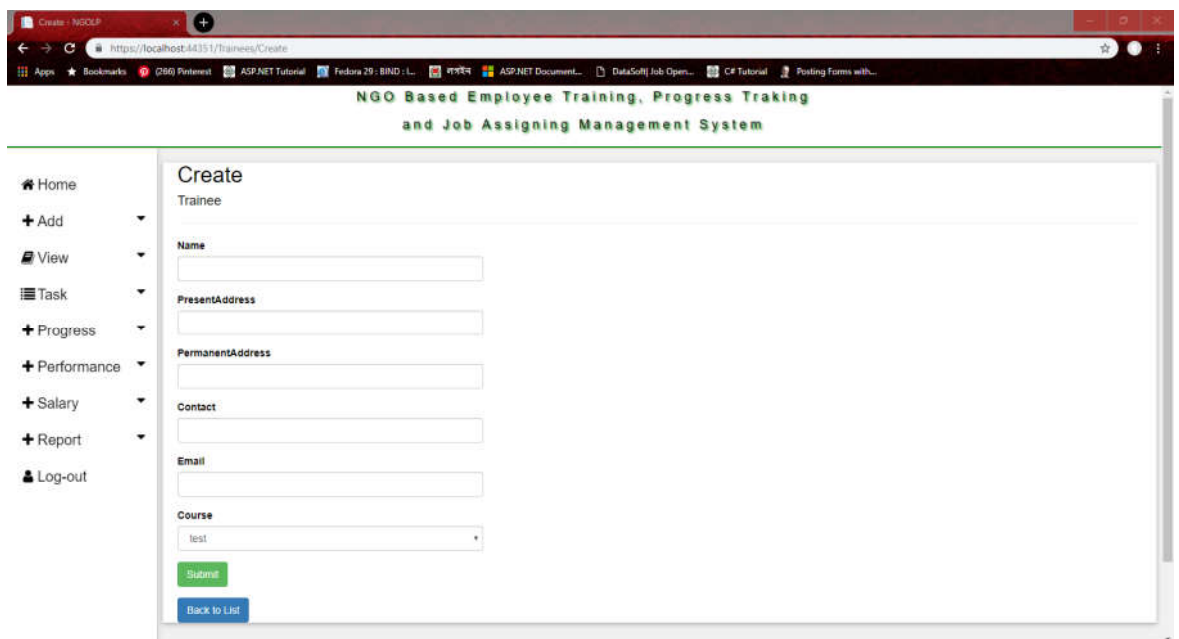
Deployment



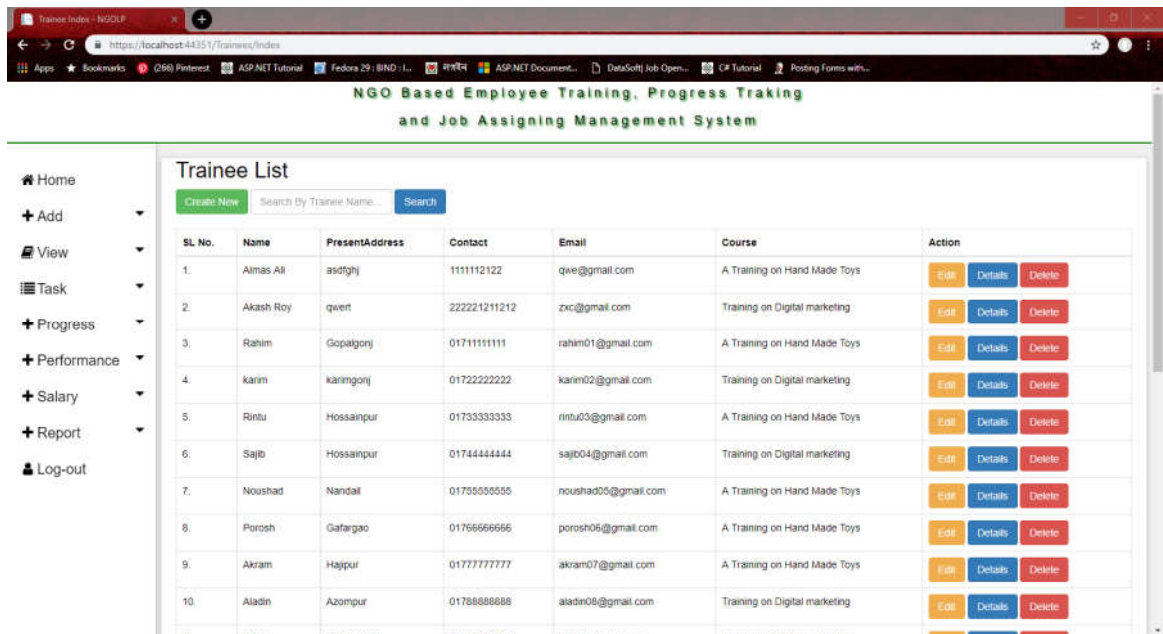
Picture No: 01



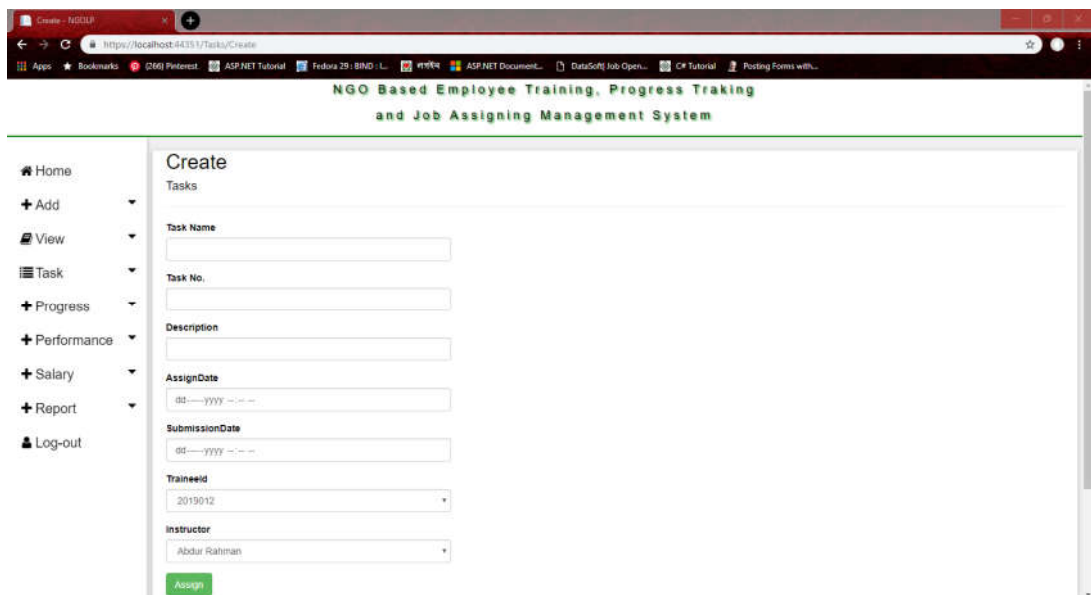
Picture No: 02



Picture No: 01



Picture No: 04



Picture No: 05

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Assigned Task List

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SL No.	Trainee Name	Trainee ID	Task No.	Instructor	AssignDate	SubmissionDate	Action
1.	Almas Ali	2019012	1	Abdur Rahman	06-Apr-19 10:00:00 AM	07-Apr-19 6:00:00 PM	Edit Details Delete
2.	Almas Ali	2019012	2	Mahabubur Rahman	10-Apr-19 2:00:00 PM	13-Apr-19 2:00:00 PM	Edit Details Delete
3.	Akash Roy	2019013	1	Abdur Rahman	06-Apr-19 12:15:00 PM	08-Apr-19 6:00:00 PM	Edit Details Delete
4.	Rahim	2019014	1	Abdur Rahman	07-Apr-19 2:04:00 AM	21-Apr-19 9:00:00 AM	Edit Details Delete
5.	karim	2019015	3	Abdur Rahman	07-Apr-19 2:02:00 PM	09-Apr-19 10:00:00 AM	Edit Details Delete
6.	Rinta	2019016	4	Abdur Rahman	08-Apr-19 3:00:00 PM	10-Apr-19 4:00:00 PM	Edit Details Delete
7.	Sajib	2019017	5	Abdur Rahman	07-Apr-19 1:00:00 PM	11-Apr-19 11:11:00 AM	Edit Details Delete
8.	Sajib	2019017	6	Abdur Rahman	04-Apr-19 7:00:00 AM	09-Apr-19 3:00:00 PM	Edit Details Delete
9.	Noushad	2019018	8	Abdur Rahman	01-Apr-19 11:11:00 AM	17-Apr-19 12:12:00 AM	Edit Details Delete
10.	Porosh	2019019	7	Abdur Rahman	08-Apr-19 10:00:00 AM	11-Apr-19 12:12:00 PM	Edit Details Delete

Picture No: 06

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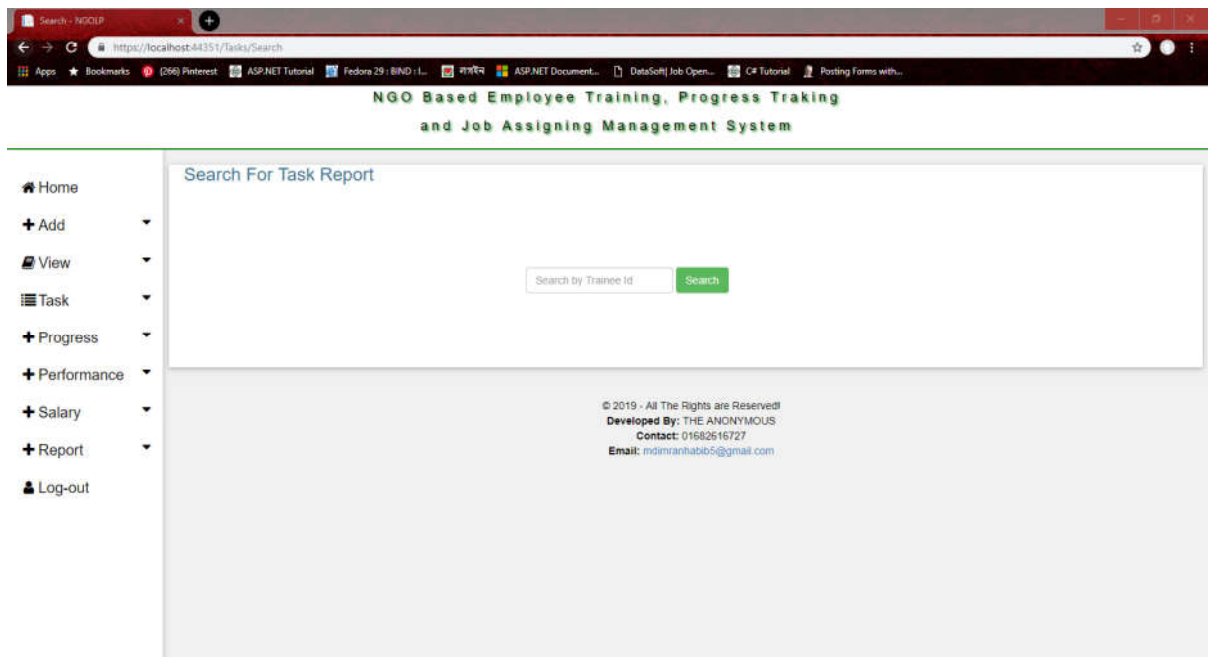
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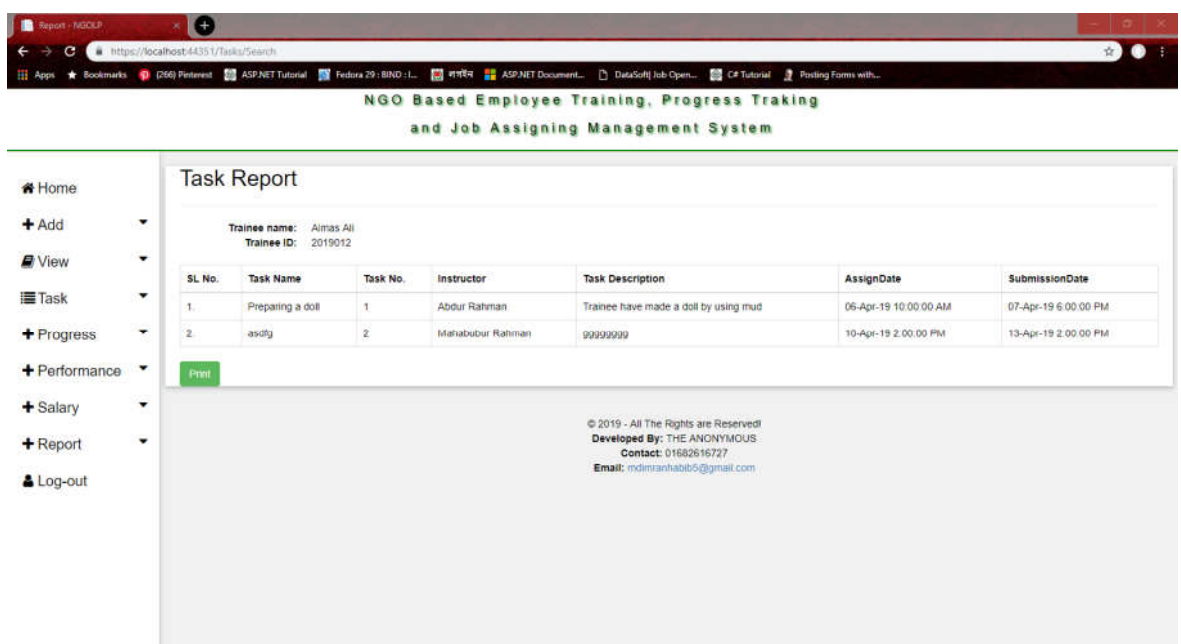
SL No.	Trainee Name	Trainee ID	Progress ID	Task No.	Date	Completed	Action
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2.	Almas Ali	2019012	405	2	13-Apr-19 2:33:00 PM	<div>70%</div>	Edit Details Delete
3.	Akash Roy	2019013	1409	1	20-Apr-19 9:00:00 PM	<div>60%</div>	Edit Details Delete

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 Developed By: THE ANONYMOUS
 Contact: 01682616727
 Email: meemranhabib@gmail.com

Picture No: 07



Picture No: 08



Picture No: 09

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Progress Report

Trainee name: Almas Ali
Trainee ID: 2019012

SL No.	Task Name	Task No	Progress
1.	Preparing a doll	1	90%
2.	asdtg	2	70%

Print

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Contact: 01682616727
Email: mdimranhabib5@gmail.com

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