University Management System

Team 05

Md. Miraz Hossain	**Md. Rakibul Hasan**	**Md. Shakil Ahmed**
2019100000024	**2019100000002**	**2019100000043**

Introduction

This project on University Management System is useful for easy user interface. The system utilizes the powerful database management, data retrieval and data manipulation. This project provides more ease for managing the data than manually maintaining in the documents. The project is useful for saving valuable time and reduces the huge paper work. It will also help educational Institutions like schools and colleges will keep track of their student records like personal details, contact details, marks details, etc. The Internet is rapidly becoming a part of the everyday lives of a majority of people in the world. People perform various activities on the Internet and one of them is storing their data in data-base where they are interested in. In these data base’s they can post the queries and they can retrieve the required data. Obviously there is a need of Student Information System software for management of student’s data. There are many departments of administration for the maintenance of college information and student databases in any institution. All these departments provide various records regarding students. Most of these track records need to maintain information about the students. This information could be the general details like student name, address, performance, attendance etc. or specific information related to departments like collection of data. All the modules in college administration are interdependent. They are maintained manually. So they need to be automated and centralized as, Information from one module will be needed by other modules.

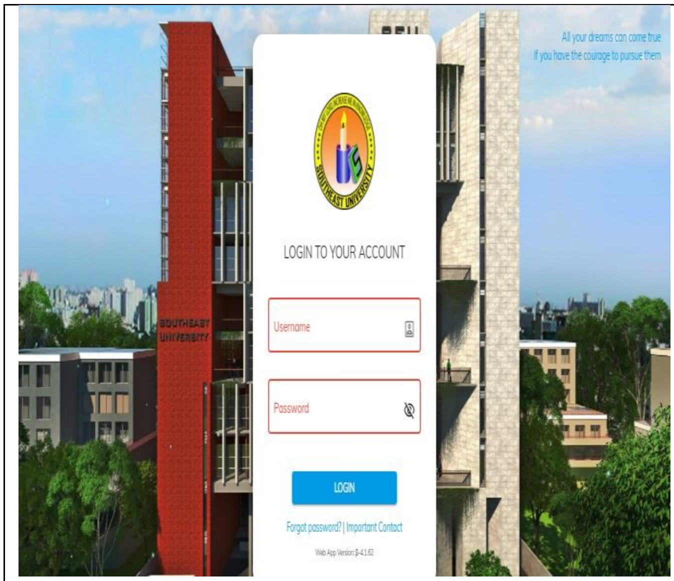
Benchmark Analysis

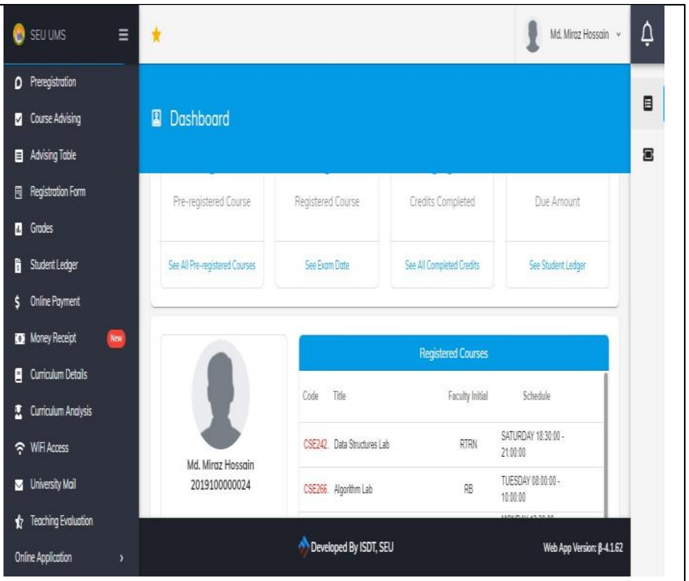
University Management System of Southeast University

Major Feature

- Student/Faculty Profile
- Course Registration
- Online Payment
- Course details and analysis

Necessary Screenshots:

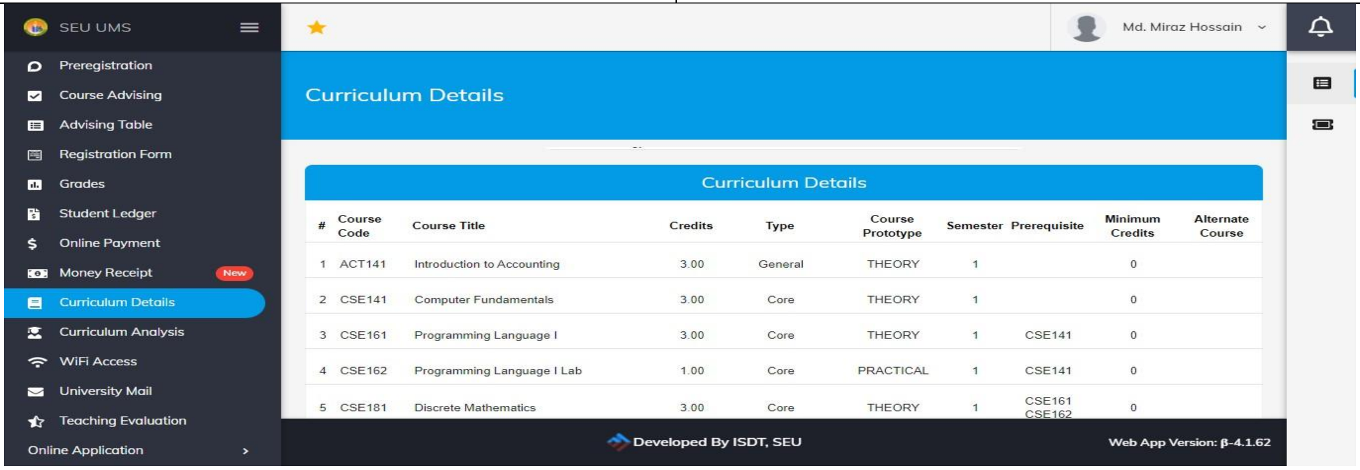

All your dreams can come true
if you have the courage to pursue them
SOUTHEAST UNIVERSITY
LOGIN TO YOUR ACCOUNT
Username
Password
LOGIN
Forgot password? | Important Contact
Web App Version: β-4.1.62



Md. Miraz Hossain
2019100000024

Registered Courses

Code	Title	Faculty Initial	Schedule
CSE242	Data Structures Lab	RTRN	SATURDAY 18:30:00 - 21:00:00
CSE266	Algorithm Lab	RB	TUESDAY 08:00:00 - 10:00:00



Curriculum Details

#	Course Code	Course Title	Credits	Type	Course Prototype	Semester	Prerequisite	Minimum Credits	Alternate Course
1	ACT141	Introduction to Accounting	3.00	General	THEORY	1		0	
2	CSE141	Computer Fundamentals	3.00	Core	THEORY	1		0	
3	CSE161	Programming Language I	3.00	Core	THEORY	1	CSE141	0	
4	CSE162	Programming Language I Lab	1.00	Core	PRACTICAL	1	CSE141	0	
5	CSE181	Discrete Mathematics	3.00	Core	THEORY	1	CSE161 CSE162	0	

The drawbacks of the system:

- It takes much time to load the home page. Low internet speed cannot be preferred for the system.
- There is no remote class system.
- Less feature compare to this generation or for this pandemic.
- UI design is not so fancy.
- Much traffic is vulnerable for this system.

Scopes for improvement:

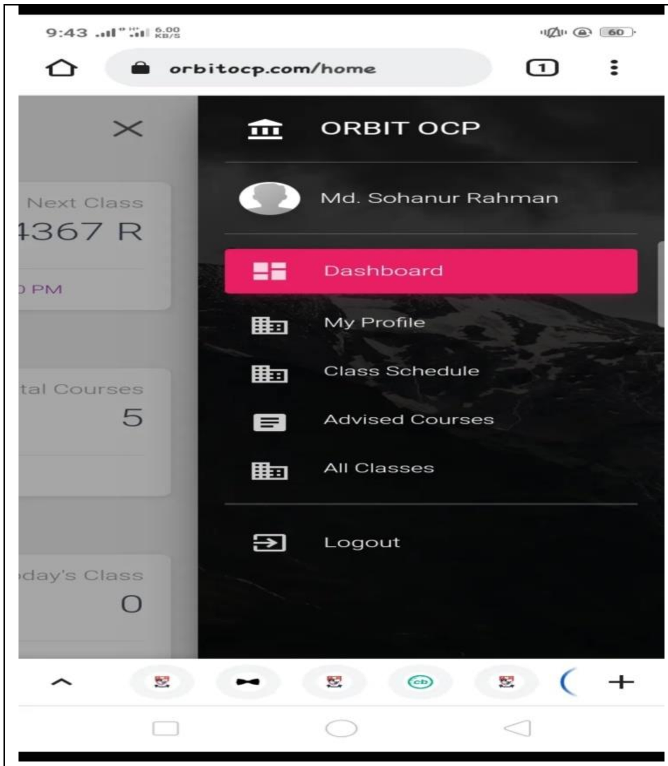
This UMS is pretty good. But it has no remote class system in this pandemic. So it should be added with their UMS. Another problem is response time. When there is much traffic like 2000 students are trying to login in their ums, they has to face buffer issues and even they got stuck. So this response time should be improved quickly. Though there are many features in this system, but some of the features are not working properly or permanently. This is another issues that this system is not at good service. It should be overcome.

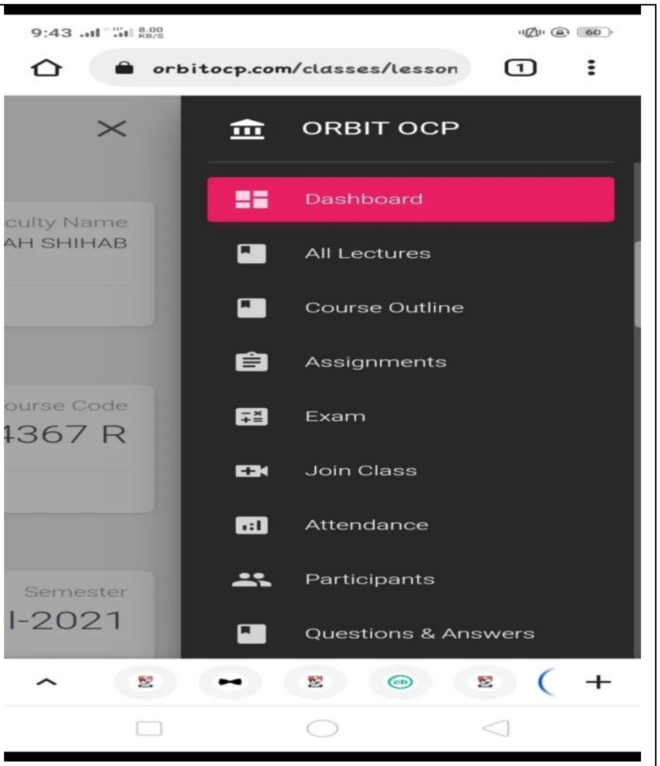
🏫 Orbitocp(Primasia University)

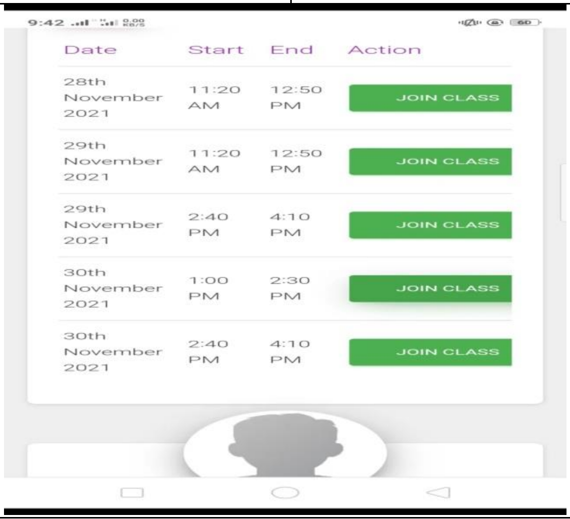
Major Feature

- Student Profile
- Remote Class and Attendance
- Course Analysis

Necessary Screenshots







Date	Start	End	Action
28th November 2021	11:20 AM	12:50 PM	JOIN CLASS
29th November 2021	11:20 AM	12:50 PM	JOIN CLASS
29th November 2021	2:40 PM	4:10 PM	JOIN CLASS
30th November 2021	1:00 PM	2:30 PM	JOIN CLASS
30th November 2021	2:40 PM	4:10 PM	JOIN CLASS

Drawbacks of the system:

- Less feature compare to this generation or for this pandemic.
- No payment system method
- No necessary notice section

Scopes for improvement:

It has many limited uses which is not good at all in this generation. But with this pandemic situation it creates a remote classroom system, that is pretty good. But student cannot experience a real UMS beauty because of less features like no digital payment method, no online library, no notice section. These features should be added with full dedication.

Subsystem

Subsystem	Scope
Student/faculty database management	Managing student database like personal details, marks details etc.
Registration course Management	Registration course can easily be done.
Login Management	Student and faculty get access to the system with authentication information.
Online Payment management	Student can easily pay their registration and other fees with digital online payment method.
Remote Teaching and Attendance	Every class attendance and online class could possible along with necessary software.
Online library management	All necessary pdf books of university can be read from there.
Important Notice Management	University important notice will show here.

Why this system is different?

University Management System is a project with a mission of viewing and manipulating student information of University in a Web-based environment. Thus, the overall system will consist of a Student Database System and Web Interface. The University Database System will supply the fundamental database structure of the entire system whereas Web Interface will provide a secure Web interface between the users and the database.

There are many University Management Systems around the entire world. But they have limited features. We expend features and student can enjoy these features with new experience. Some UMS has no remote class system, some other have no library system. We add those new features in our management system which will prove our dedication and will prefer this project as updated version with many new features. We will increase traffic numbers as well as quick response time. Student and faculty can read necessary book just login with these UMS and can spread knowledge of wisdom. We have added remote class system which will combine all university students and faculty in one ground. That is pretty cool feature along with this generation. Student and faculty can discuss within UMS. This UMS will notify you about important notice as well as important time schedule or meetings.

Actors:

- Student
- Faculty
- Admin(Co-Ordinators, chairman)
- Advisor
- SSL-Commerce
- Librarian

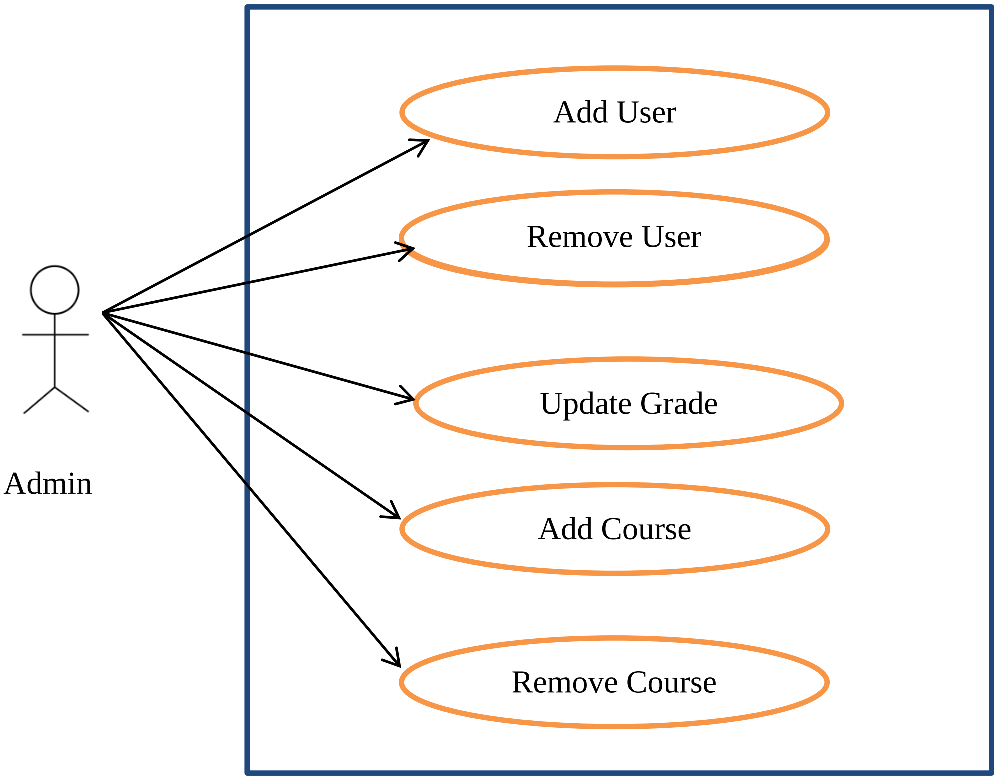
Actor glossary

Actors	Short-key	Activity Scope
Student	STD	Can visit and make payment
Faculty	FCT	Visit and control classroom
Admin	ADM	Control whole system
Advisor	ADV	Add/drop courses
SSL-COMMERCE	SSL	Access student payment database
System	SYS	Authentication and Update
Librarian	LBN	Manage library
Accounts	ACT	Can update payment info

Student /Faculty database management

Use-Case Id > Name	Description	Participant Actors
Add user	Admin can add new student/faculty	Admin
Remove user	Passed university student and left faculty can be removed by Admin	Admin
Update grade	Every semester student grade will be updated.	Admin
Add course	New courses can be added to the department	Admin
Remove Course	Course can be removed based on UGC policies.	Admin

USECASE DIAGRAM



USECASE NARRATIVE: (Add User)

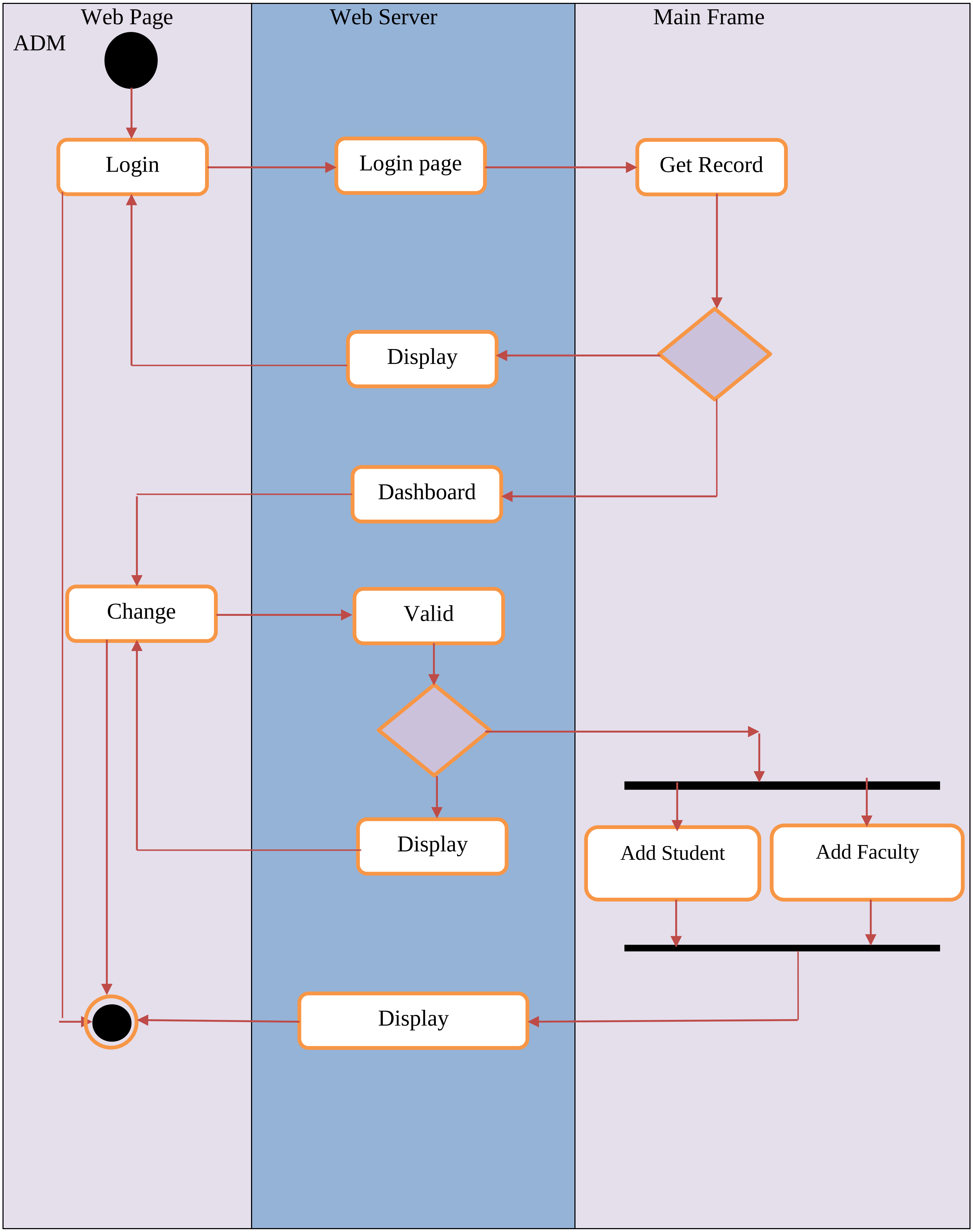
Use case Name	Add User	
Area	Student /Faculty database management	
Actors	Admin	
Description	Admin can add new user for the system.	

Successor Scenario

Steps	Information
1. Login	Id, password
2. Go to dashboard	
3. Web server check valid admin	
4. Add new user to database.	
5. Display confirmation	

Alternative Secenario

Steps	Information
3.1 If id or password don't match go to login option.	Id, password
3.2 Display error authentication	
3.3 Again try.	


Web Page
Web Server
Main Frame
ADM
Login
Login page
Get Record
Display
Dashboard
Change
Valid
Display
Add Student
Add Faculty
Display

USECASE NARRATIVE: (Remove User)

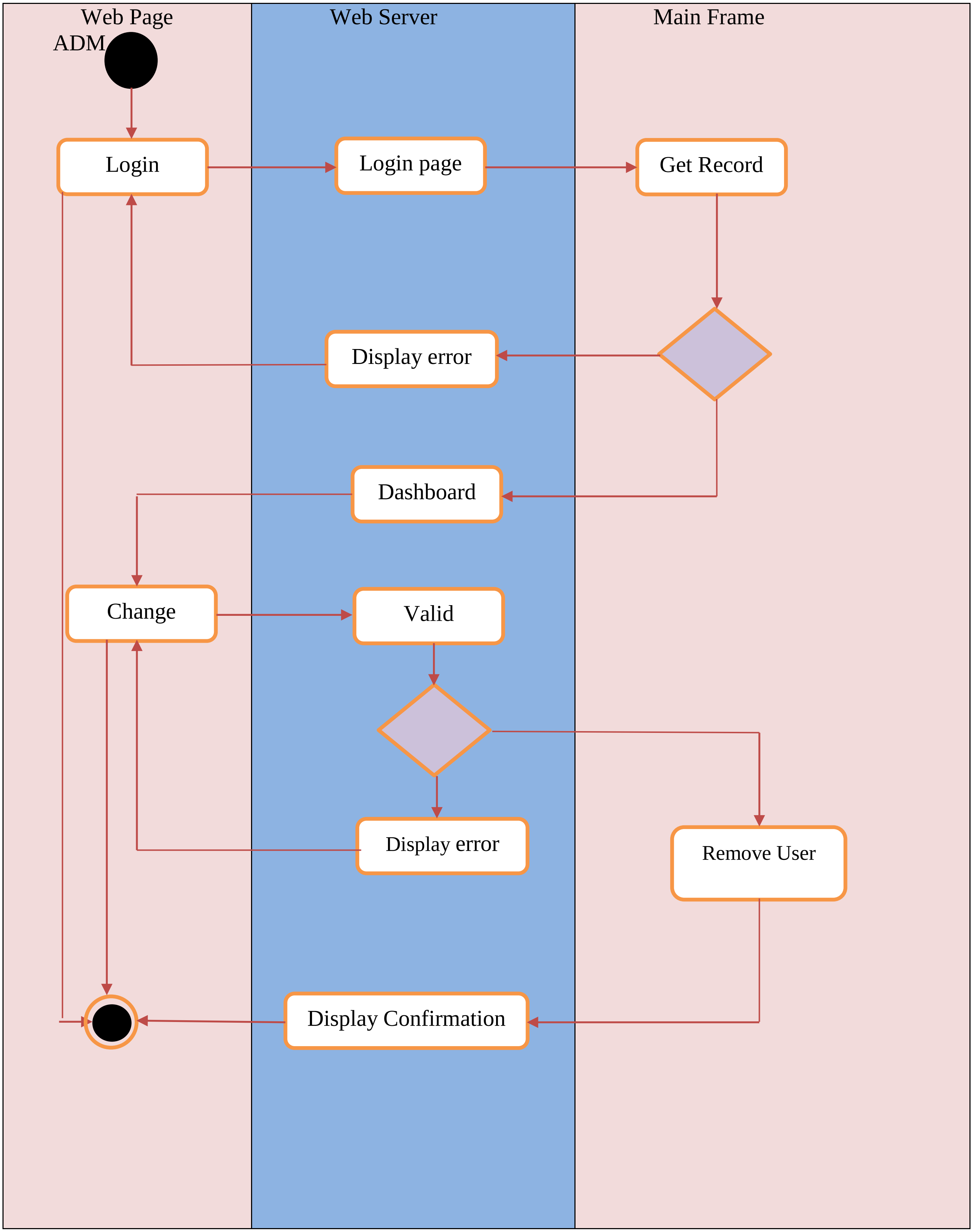
Use case Name	Remove User
Area	Student /Faculty database management
Actors	Admin
Description	Admin can remove exist user for the system.

Successor Scenario

Steps	Information
1. Login	Id, password
2. Go to dashboard	
3. Web server check valid admin	
4. Check exist user	
5. Delete user	
6. Display confirmation	

Alternative Scenario

Steps	Information
3.1 If id or password don't match go to login option.	Id, password
3.2 Display error authentication	
3.3 Again try.	
4.1 If this is not exist user, show error	
4.2 Display try again message	


Web Page
Web Server
Main Frame
ADM
Login
Login page
Get Record
Display error
Dashboard
Change
Valid
Display error
Remove User
Display Confirmation

USECASE NARRATIVE: (Update Grade)

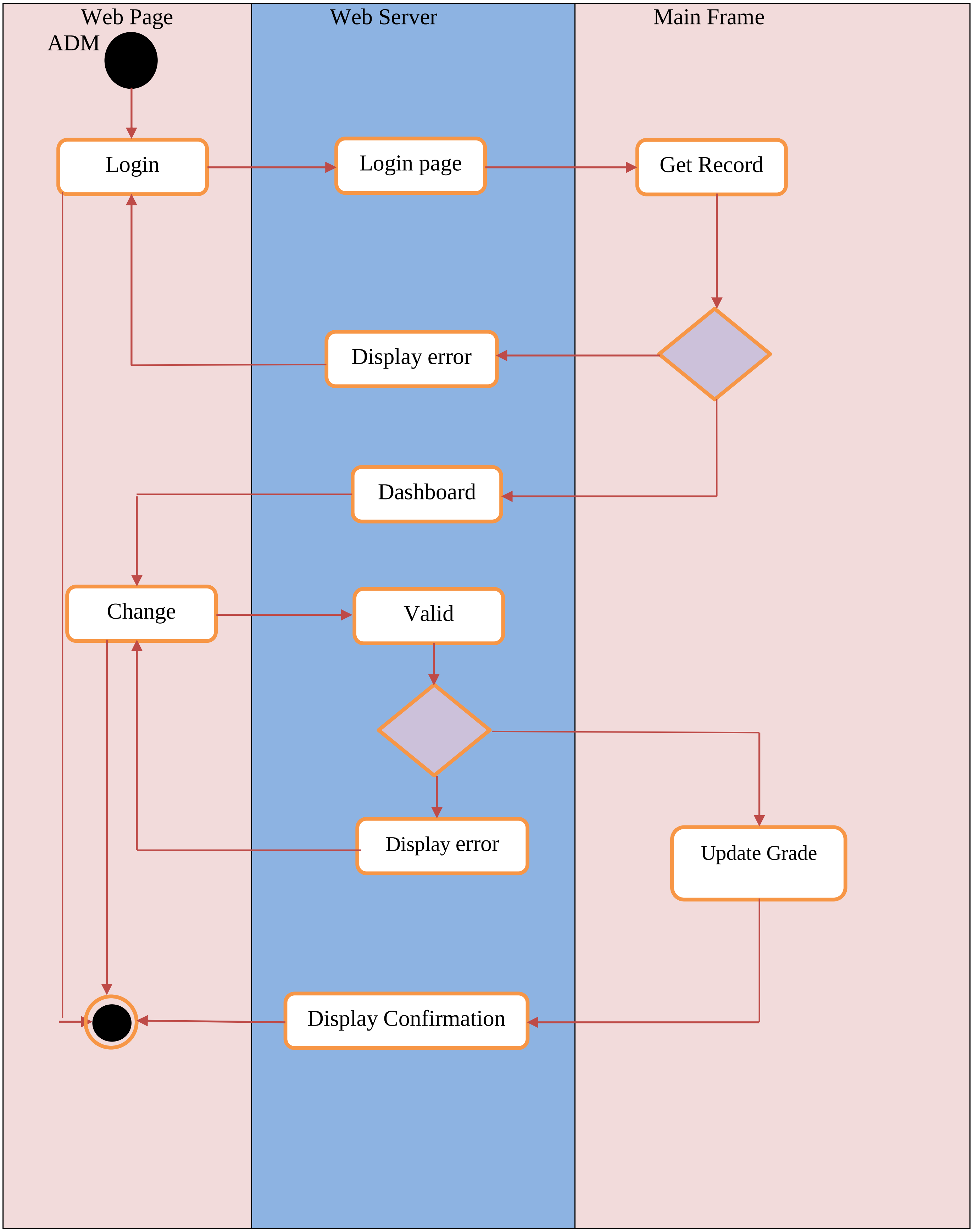
Use case Name	Update
Area	Student /Faculty database management
Actors	Admin
Description	Admin update students grade

Successor Scenario

Steps	Information
1. Login	Id, password
2. Go to dashboard	
3. Web server check valid admin	
4. Get user id	User id
5. Update grade	
6. Display confirmation	

Alternative Scenario

Steps	Information
3.1 Go to login option.	Id, password
3.2 Display error authentication	
3.3 Again try.	
4.1 Invalid user id	
4.2 Display not found	


Web Page
Web Server
Main Frame
ADM
Login
Login page
Get Record
Display error
Dashboard
Change
Valid
Display error
Update Grade
Display Confirmation

USECASE NARRATIVE: (Add Course)

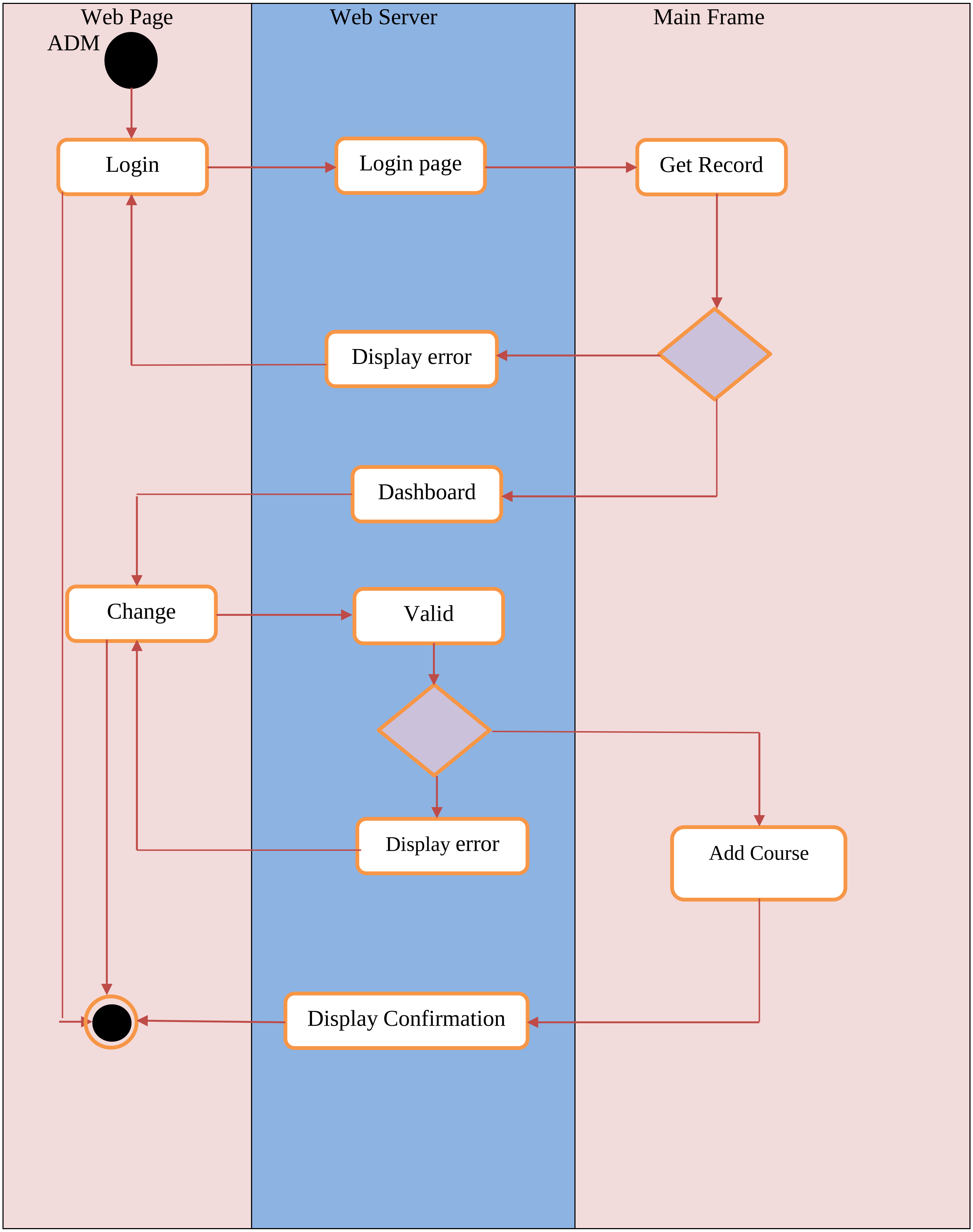
Use case Name	Add Course
Area	Student /Faculty database management
Actors	Admin
Description	Admin can add new course to the department

Successor Scenario

Steps	Information
1. Login	Id, password
2. Go to dashboard	
3. Web server check valid admin	
4. Add course	
5. Display confirmation	

Alternative Scenario

Steps	Information
3.1 Go to login option.	Id, password
3.2 Display error authentication	
3.3 Again try.	


Web Page
Web Server
Main Frame
ADM
Login
Login page
Get Record
Display error
Dashboard
Change
Valid
Display error
Add Course
Display Confirmation

USECASE NARRATIVE: (Remove Course)

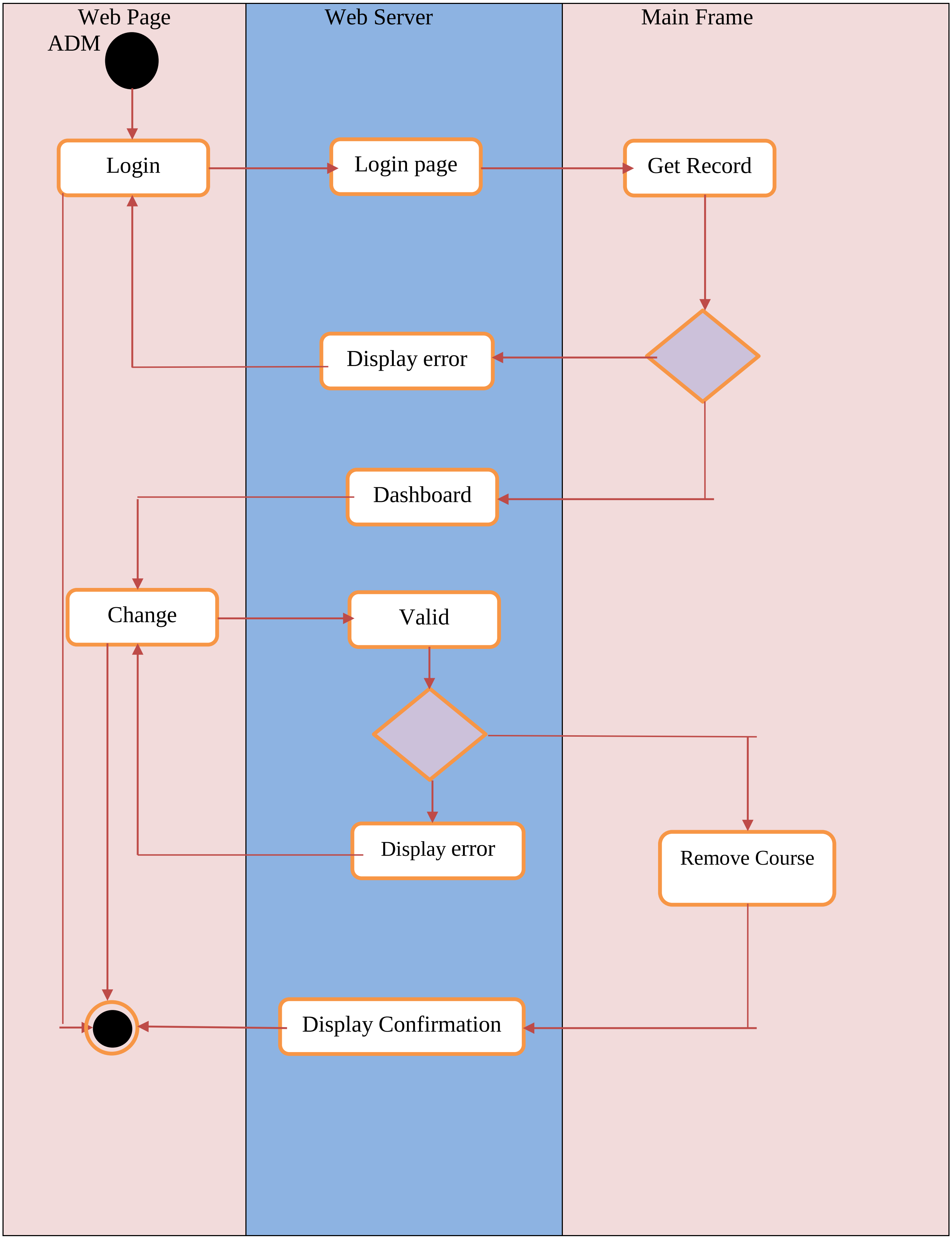
Use case Name	Remove Course
Area	Student /Faculty database management
Actors	Admin
Description	Remove course from the department as permission with UGC and authority.

Successor Scenario

Steps	Information
1. Login	Id, password
2. Go to dashboard	
3. Web server check valid admin	
4. Check course availability	Course code
5. Remove course	
6. Display confirmation	

Alternative Scenario

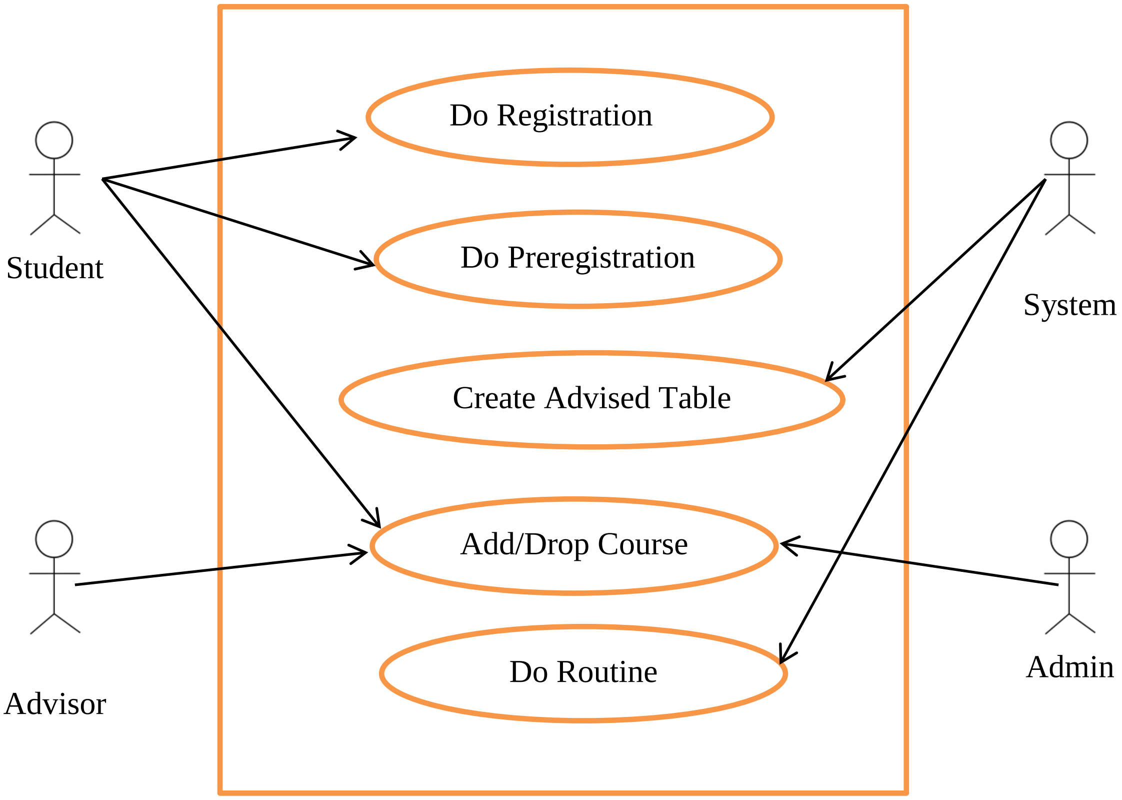
Steps	Information
3.1 Go to login option.	Id, password
3.2 Display error authentication	
3.3 Again try.	
4.1 Not found	
4.2 Try again	


Web Page
Web Server
Main Frame
ADM
Login
Login page
Get Record
Display error
Dashboard
Change
Valid
Display error
Remove Course
Display Confirmation

Register Course Database

Use-Case Id > Name	Description	Participant Actors
Do Registration	Register course for the new semester.	Student
Do Preregistration	Couse can be choosed before final registration to obtain better course management	Student
Create advised table	Course will be arranged by student's completed courses	System
Add/Drop course	Course can be add or drop when student are not interested with the course	Student(for limited time), Advisor(for limited period), Admin.
Do Routine	Routine will be generated automatically after registration.	System

USECASE Diagram



USECASE NARRATIVE: (Do Registration)

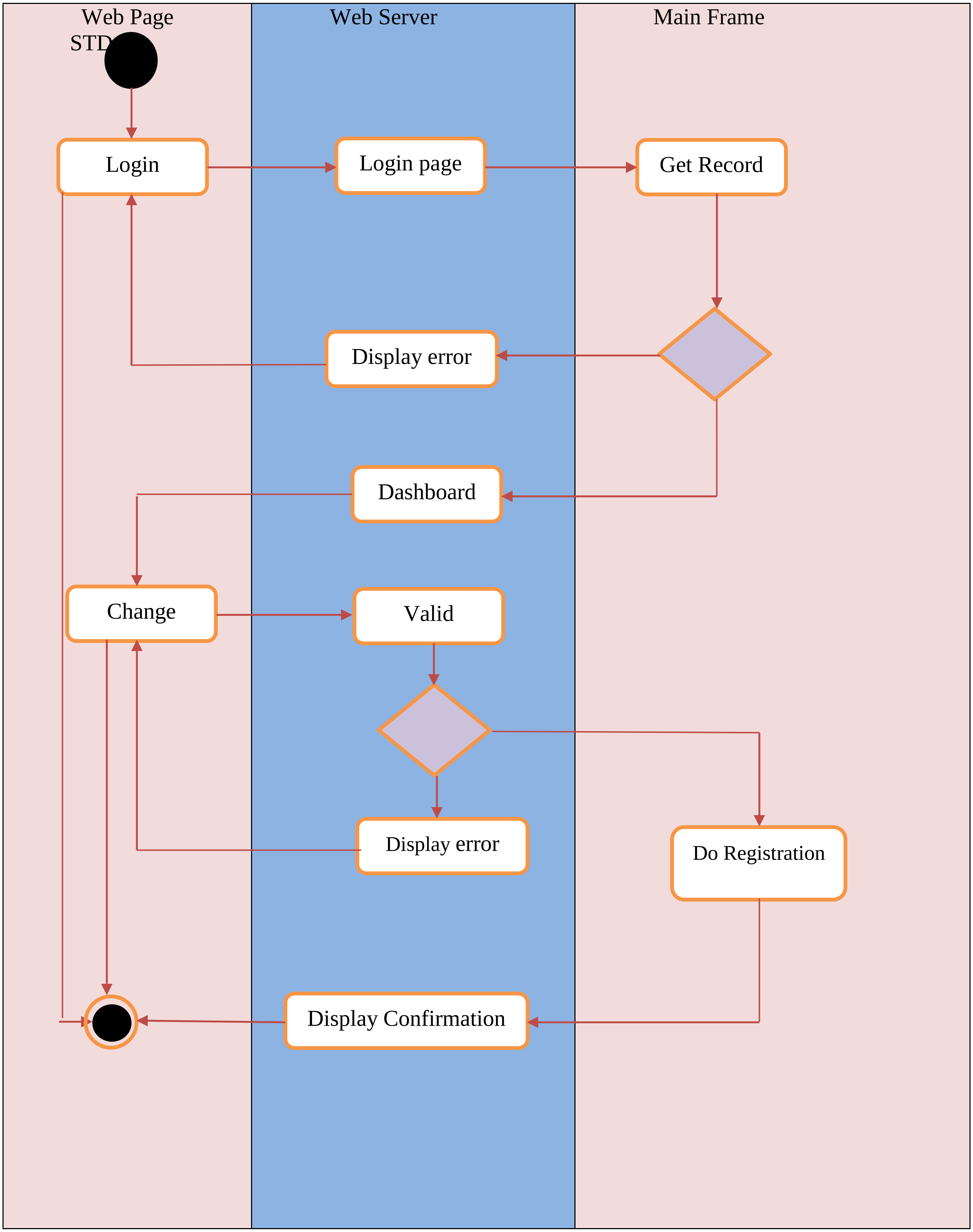
Use case Name	Do Registration
Area	Registration course system
Actors	student
Description	Student can registration new course for new semester.

Successor Scenario

Steps	Information
1. Login	Id, password
2. Go to dashboard	
3. Web server check valid student	
4. Click registration	
5. Check prerequisite	Course code
6. Add course for registration	Course code
7. Display confirmation	

Alternative Scenario

Steps	Information
3.1 Go to login option.	Id, password
3.2 Display error authentication	
3.3 Again try.	
5.1 Prerequisite not complete	
5.2 Try again	


Web Page
Web Server
Main Frame
STD
Login
Login page
Get Record
Display error
Dashboard
Change
Valid
Display error
Do Registration
Display Confirmation

USECASE NARRATIVE: (Do Preregistration)

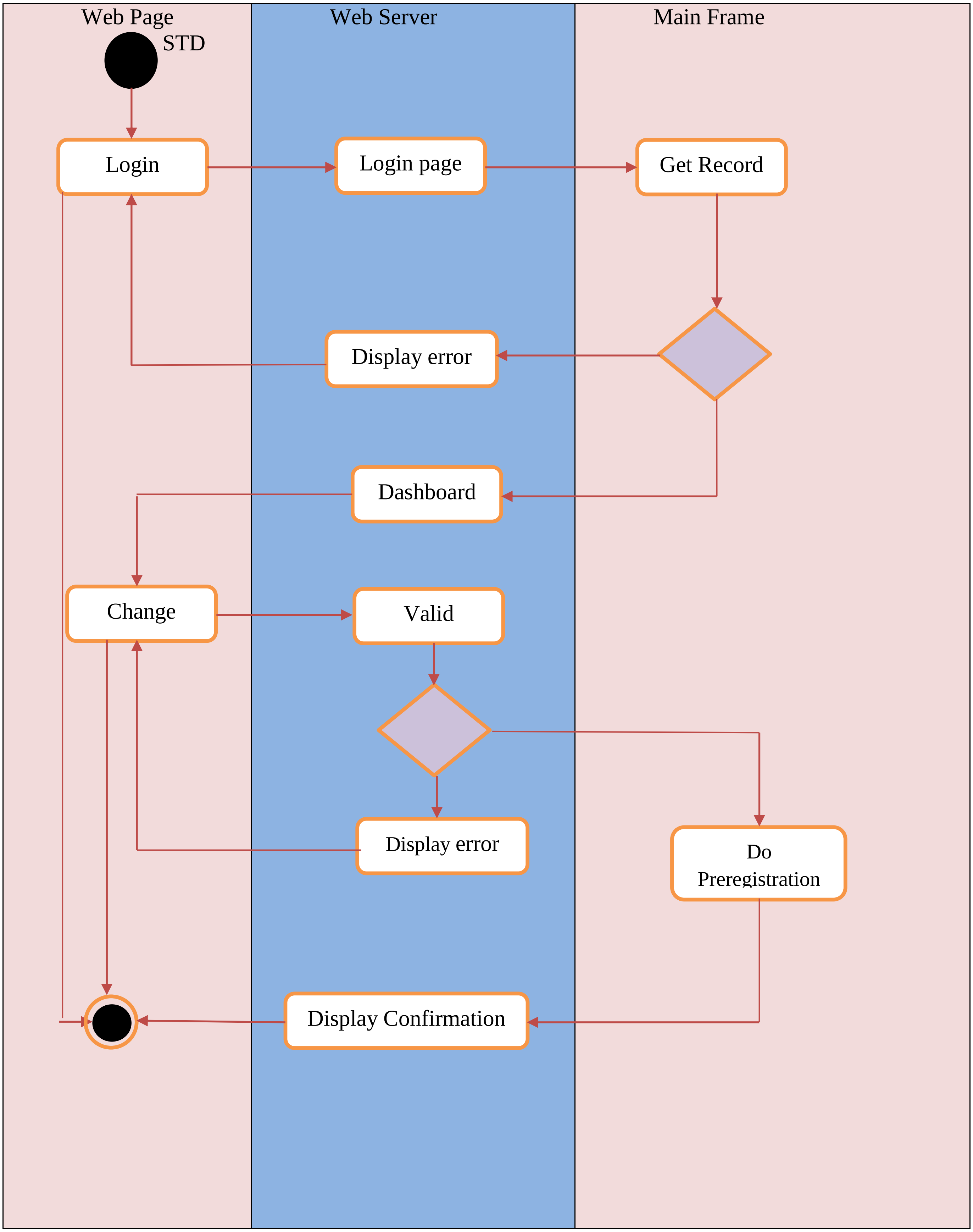
Use case Name	Do Preregistration
Area	Registration course system
Actors	Student
Description	Student can add course before final registration for new semester.

Successor Scenario

Steps	Information
1. Login	Id, password
2. Go to dashboard	
3. Web server check valid student	
4. Click preregistration	
5. Add course for preregistration	Course code
6. Check prerequisite	Course code
7. Display confirmation	

Alternative Scenario

Steps	Information
3.1 Go to login option.	Id, password
3.2 Display error authentication	
3.3 Again try.	
6.1 Not complete prerequisite course	
6.2 Try again	


Web Page
Web Server
Main Frame
STD
Login
Login page
Get Record
Display error
Dashboard
Change
Valid
Display error
Do
Preregistration
Display Confirmation

USECASE NARRATIVE: (Create Advisor)

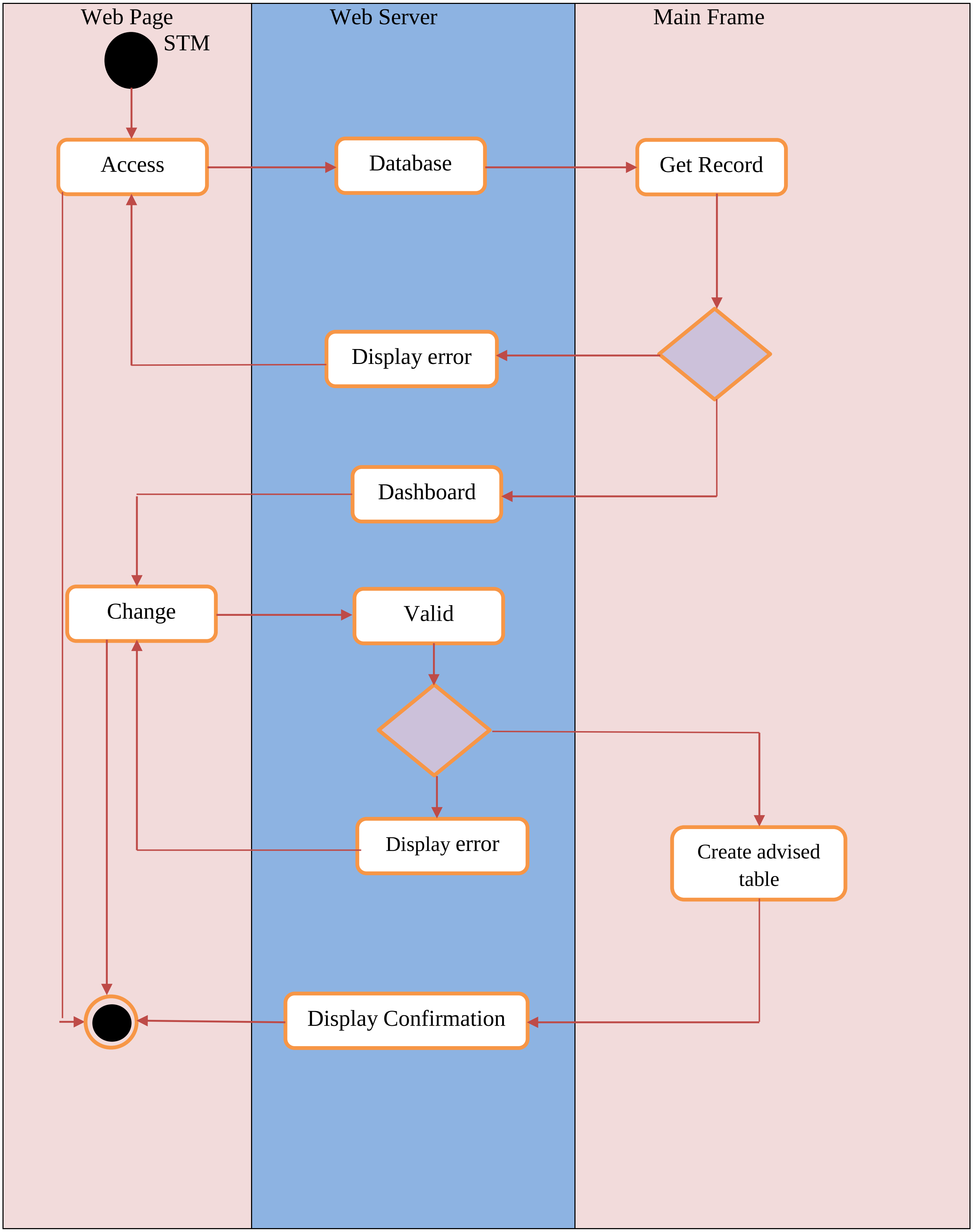
Use case Name	Create Advised Table
Area	Registration course system
Actors	System
Description	Show information of course what student can registered course based on his/her prerequisite complete course.

Successor Scenario

Steps	Information
1. Get access	Course id, student id, prerequisite
2. Check prerequisite	Course id, student id, prerequisite
3. Display valid course for registration	

Alternative Scenario

Steps	Information
2.1 Do not show	
2.2 Try again	


Web Page
Web Server
Main Frame
STM
Access
Database
Get Record
Display error
Dashboard
Change
Valid
Display error
Create advised table
Display Confirmation

USECASE NARRATIVE: (Add/Drop Course)

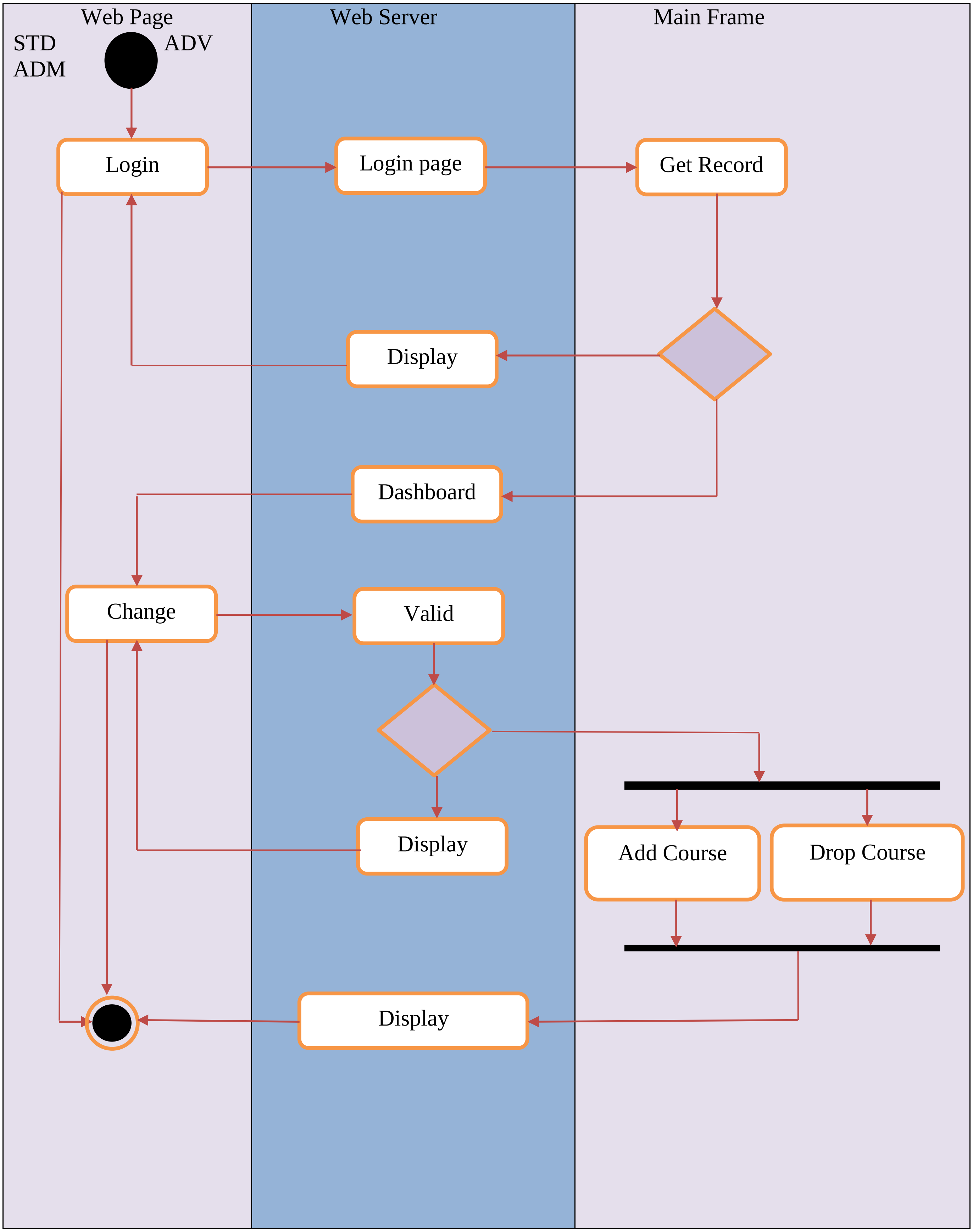
Use case Name	Add/Drop
Area	Registration course system
Actors	Student, admin, advisor
Description	Can change course when after registration.

Successor Scenario

Steps	Information
1. Login	Id, password
2. Go to dashboard	
3. Web server check valid user	Id, password
4. Check student id	Student id
5. Add / drop course	Course code
6. Display confirmation	

Alternative Scenario

Steps	Information
3.1 Go to login option.	Id, password
3.2 Display error authentication	
3.3 Again try.	
4.1 Enter valid student id	Student id
6.2 go to 4	


Web Page
Web Server
Main Frame
STD
ADM
ADV
Login
Login page
Get Record
Display
Dashboard
Change
Valid
Display
Add Course
Drop Course
Display

USECASE NARRATIVE: (Do Routine)

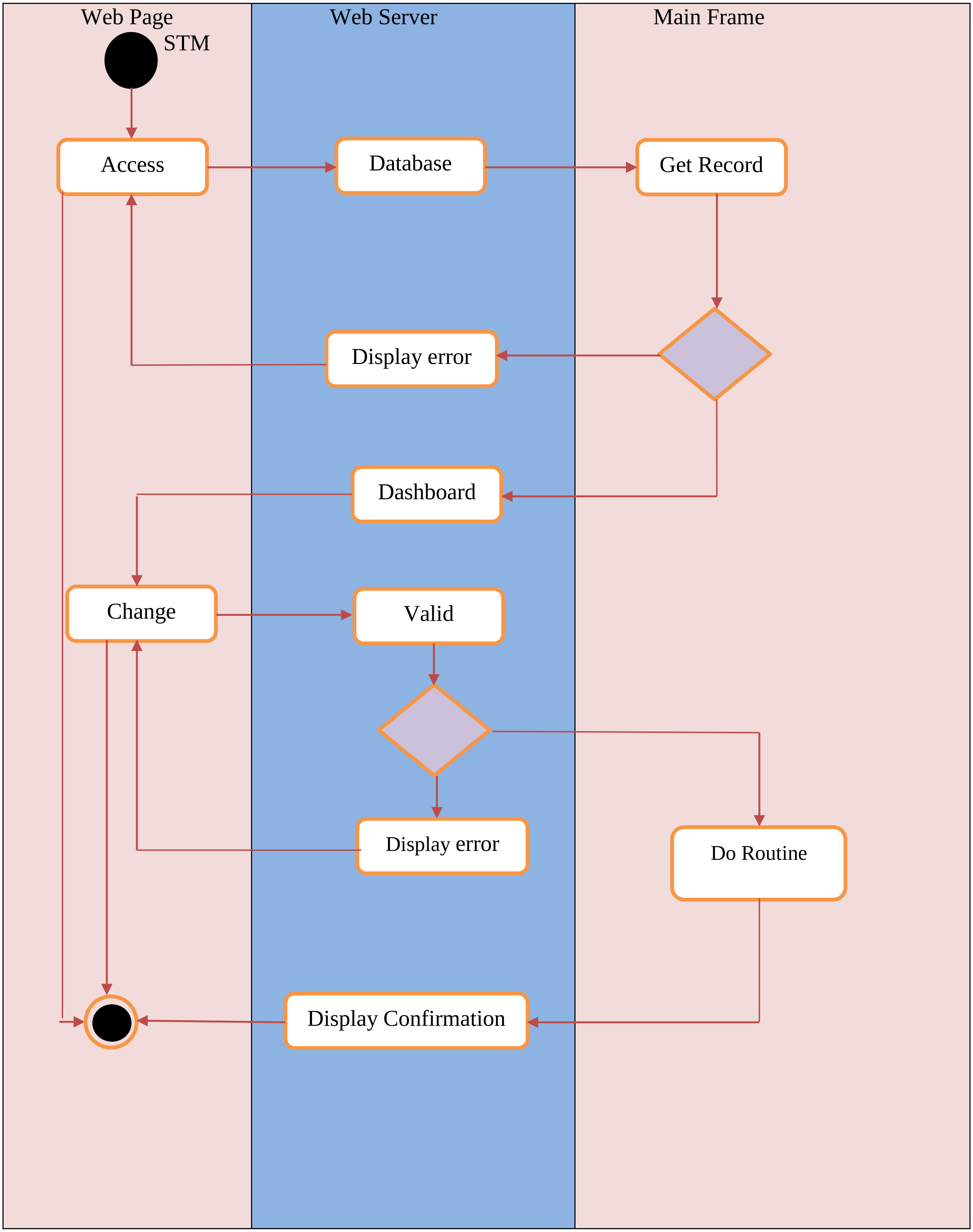
Use case Name	Do Routine
Area	Registration course system
Actors	System
Description	Auto update routine for class after registration courses.

Successor Scenario

Steps	Information
1. Get access to read registration info	Student id, student database
2. Check student id	Student
3. Generate routine	
4. Provide routine in student dashboard	Id, password

Alternative Scenario

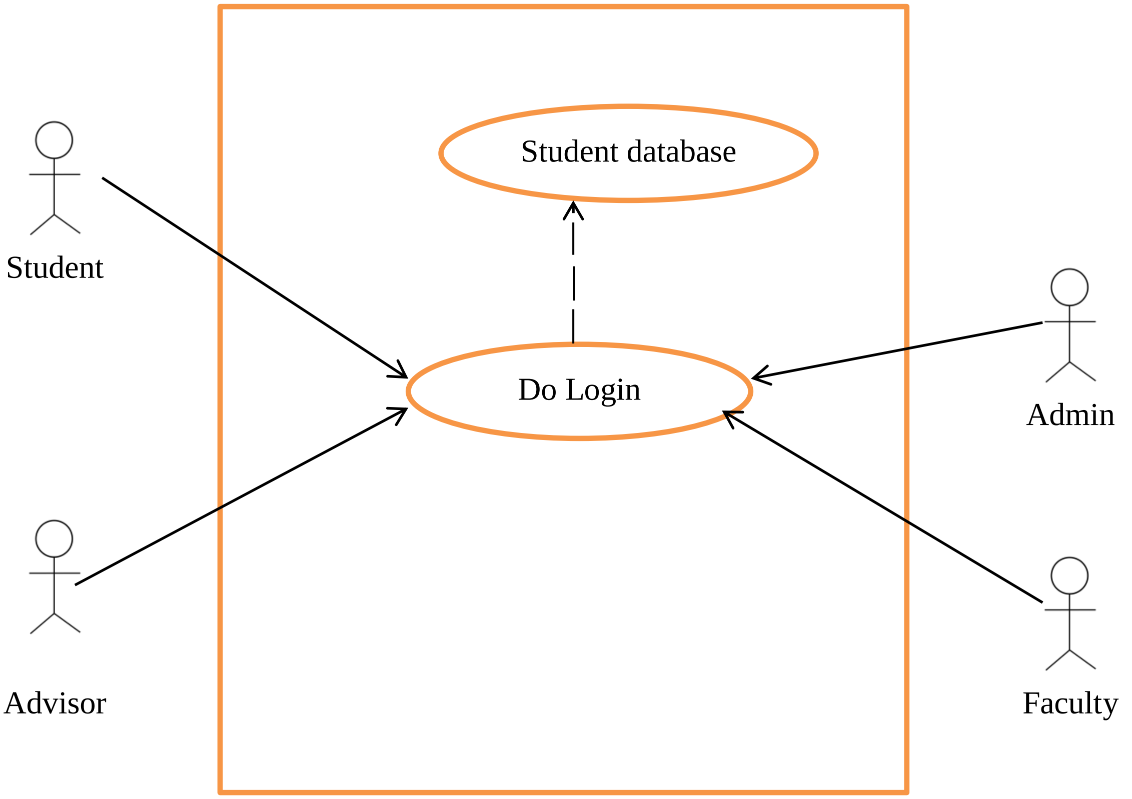
Steps	Information
1.1 Not do update routine	
1.2 Try again	


Web Page
Web Server
Main Frame
STM
Access
Database
Get Record
Display error
Dashboard
Change
Valid
Display error
Do Routine
Display Confirmation

Login System

Use-Case Id > Name	Description	Participant Actors
Do login	Registered user can login with user id and password.	Student, Faculty, Admin

USECASE DIAGRAM



USECASE NARRATIVE: (Remove User)

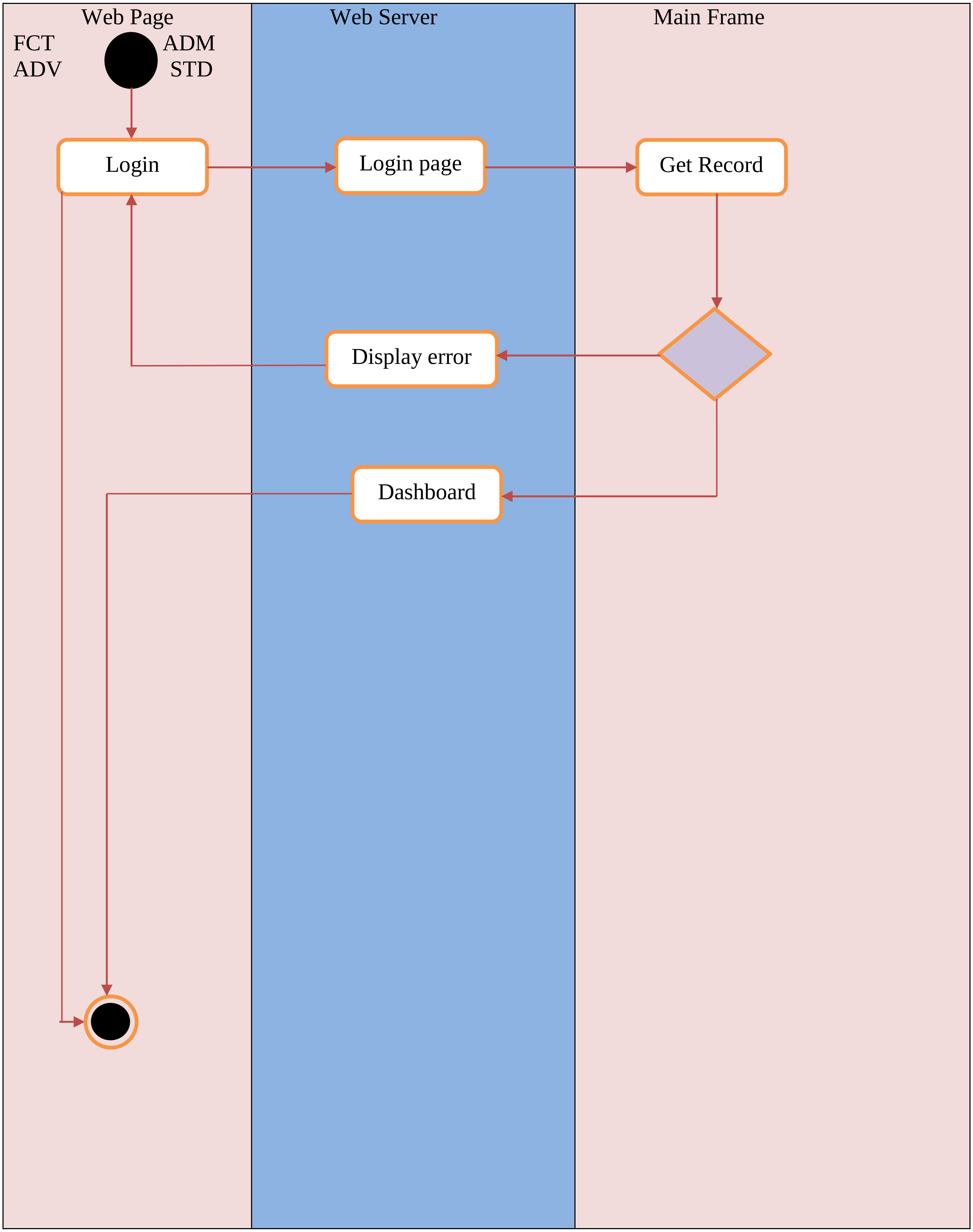
Use case Name	Do Login
Area	Login System
Actors	Student, admin, advisor, faculty
Description	Login to system with valid authentication information.

Successor Scenario

Steps	Information
1. Go to login dashboard	Web link
2. Enter id, password	Id, password
3. Web check valid id and password	Id , password
4. Web Give access to database	
5. Successfully Log in	

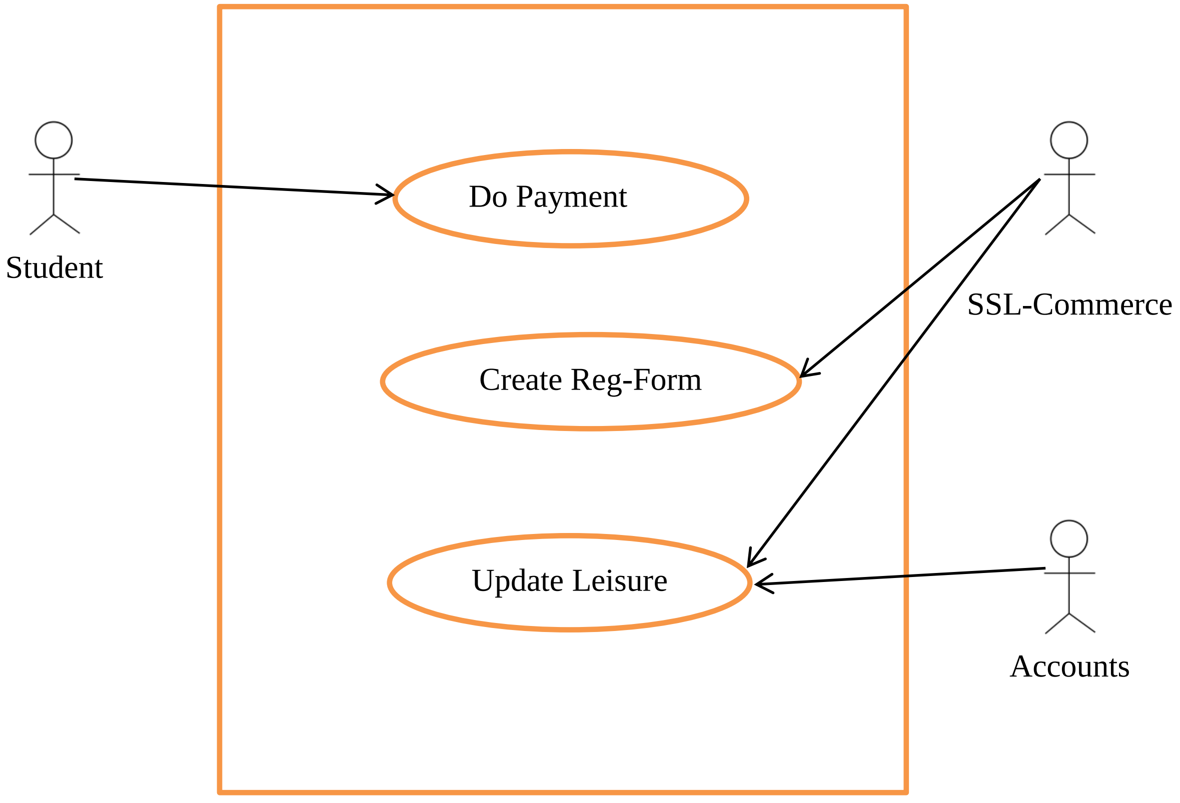
Alternative Scenario

Steps	Information
3.1 Show invalid id or password	
3.2 Try again	


Web Page
Web Server
Main Frame
FCT
ADV
ADM
STD
Login
Login page
Get Record
Display error
Dashboard

Online Payment Management

Use-Case Id> Name	Description	Participant Actors
Do payment	Payment Due amount	Student
Create reg-form	After payment registration form will be automatic create.	System



USECASE NARRATIVE: (Do Payment)

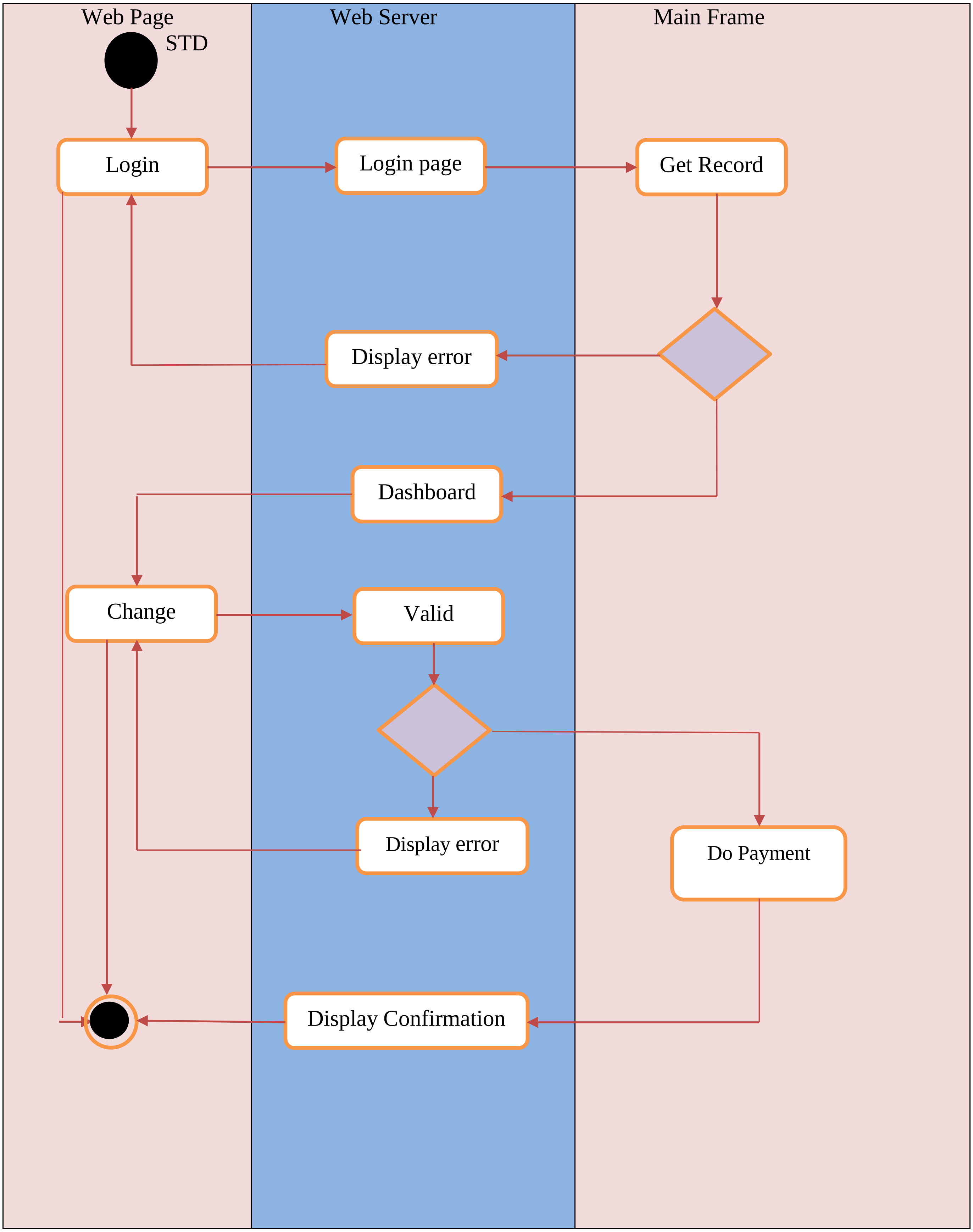
Use case Name	Do Payment
Area	Online Payment System
Actors	Student
Description	Student do online payment through SSL commerce

Successor Scenario

Steps	Information
1. Login	Id, password
2. Go to dashboard	
3. Web server check valid user	Id, password
4. Click Online Payment	Student id
5. Give amount	
6. Check payment complete	
7. Give confirmation	

Alternative Scenario

Steps	Information
3.1 Go to login option.	
3.2 Display error authentication	
3.3 Again try.	
6.1 Go to dashboard	
6.2 Try again	


Web Page
Web Server
Main Frame
STD
Login
Login page
Get Record
Display error
Dashboard
Change
Valid
Display error
Do Payment
Display Confirmation

USECASE NARRATIVE: (Create Reg-Form)

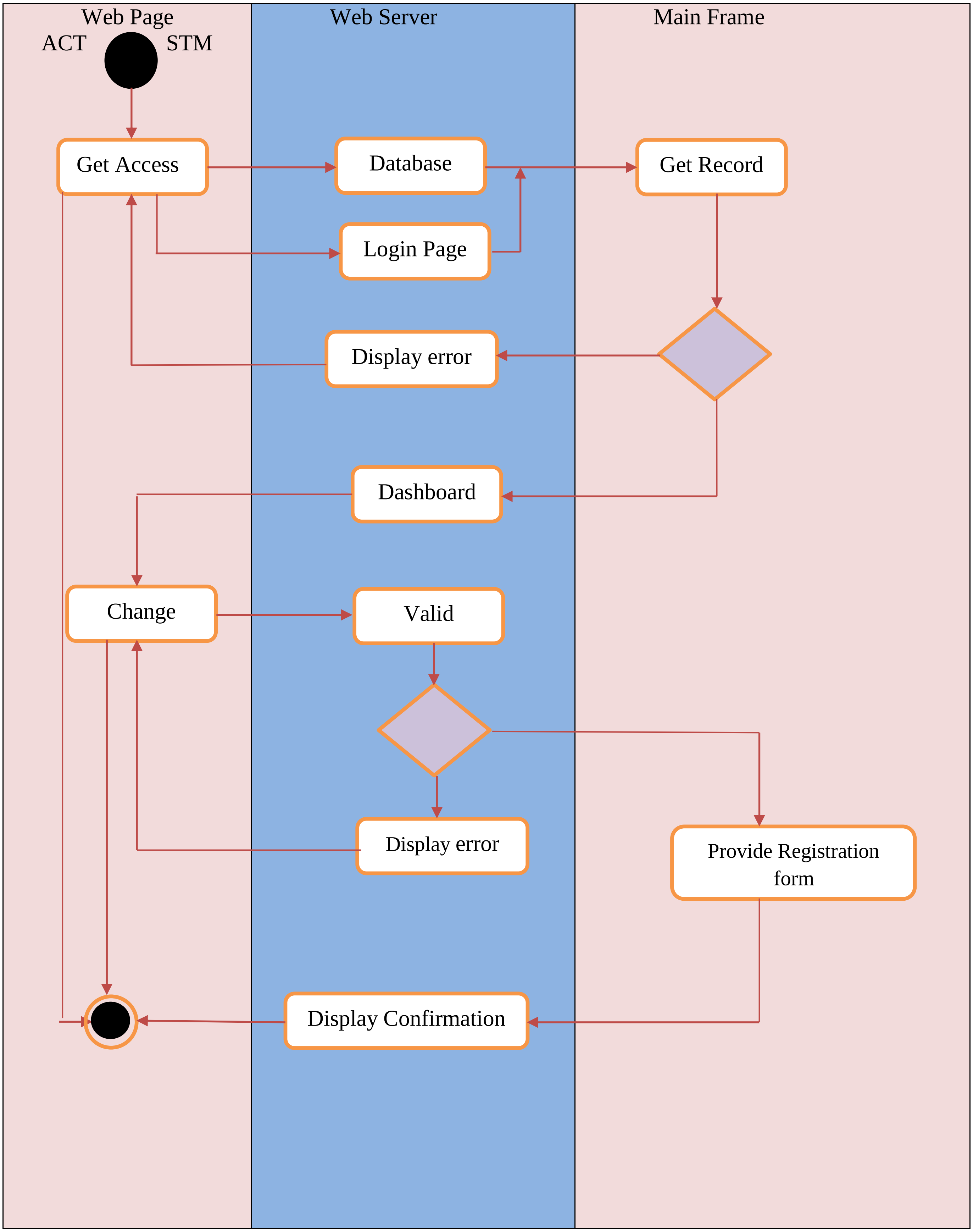
Use case Name	Create Reg-Form
Area	Online Payment System
Actors	System
Description	After the enough payment complete system generate automatic registration form.

Successor Scenario

Steps	Information
1. System get access to payment history database.	Student id
2. Check enough payment complete	
3. Create registration form	
4. Show successfully complete	

Alternative Scenario

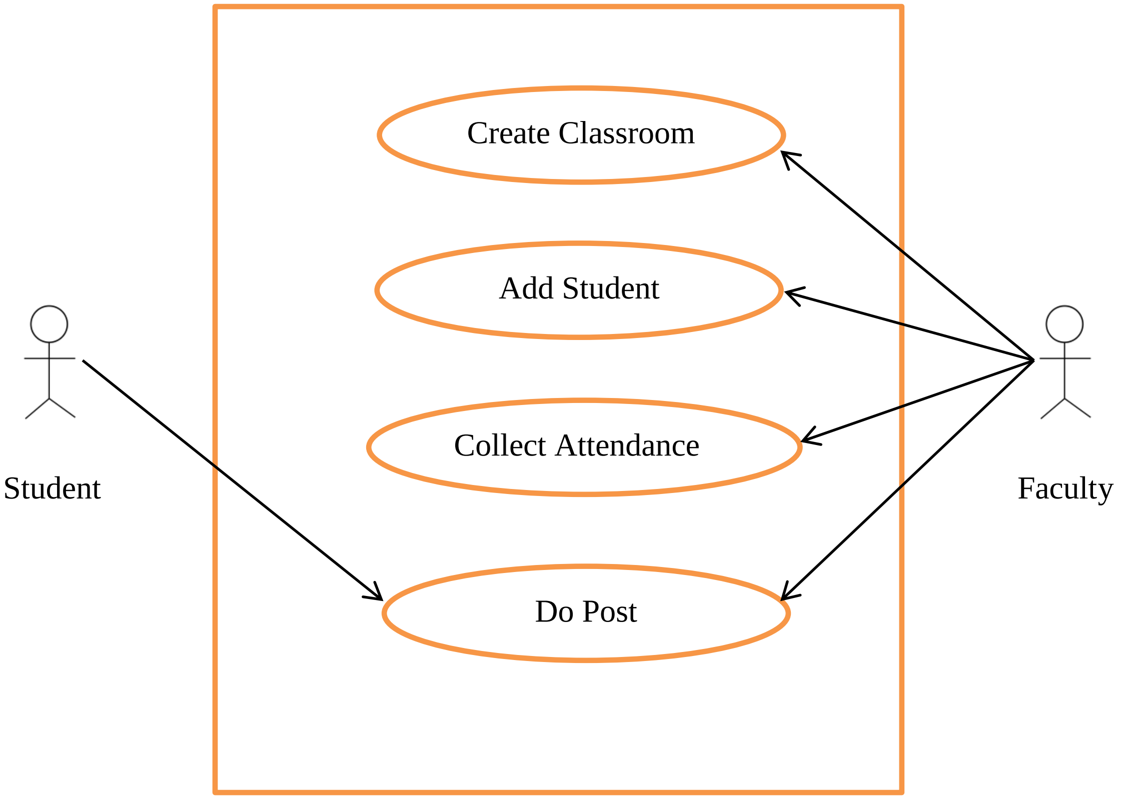
Steps	Information
2.1 Show due amount of money for completing registration.	
2.2 Go to payment history	


Web Page
Web Server
Main Frame
ACT
STM
Get Access
Database
Get Record
Login Page
Display error
Dashboard
Change
Valid
Display error
Provide Registration form
Display Confirmation

Remote Classroom and Attendance

Use-Case Id>Name	Description	Participant Actors
Create classroom	A classroom can be created for desired courses.	Faculty
Add student	Student will be joined to desired classroom	Faculty
Collect attendance	Collect attendance of student in every class	Faculty
Do Post	Post required information	Faculty , student

USECASE DIAGRAM



USECASE NARRATIVE: (Create Classroom)

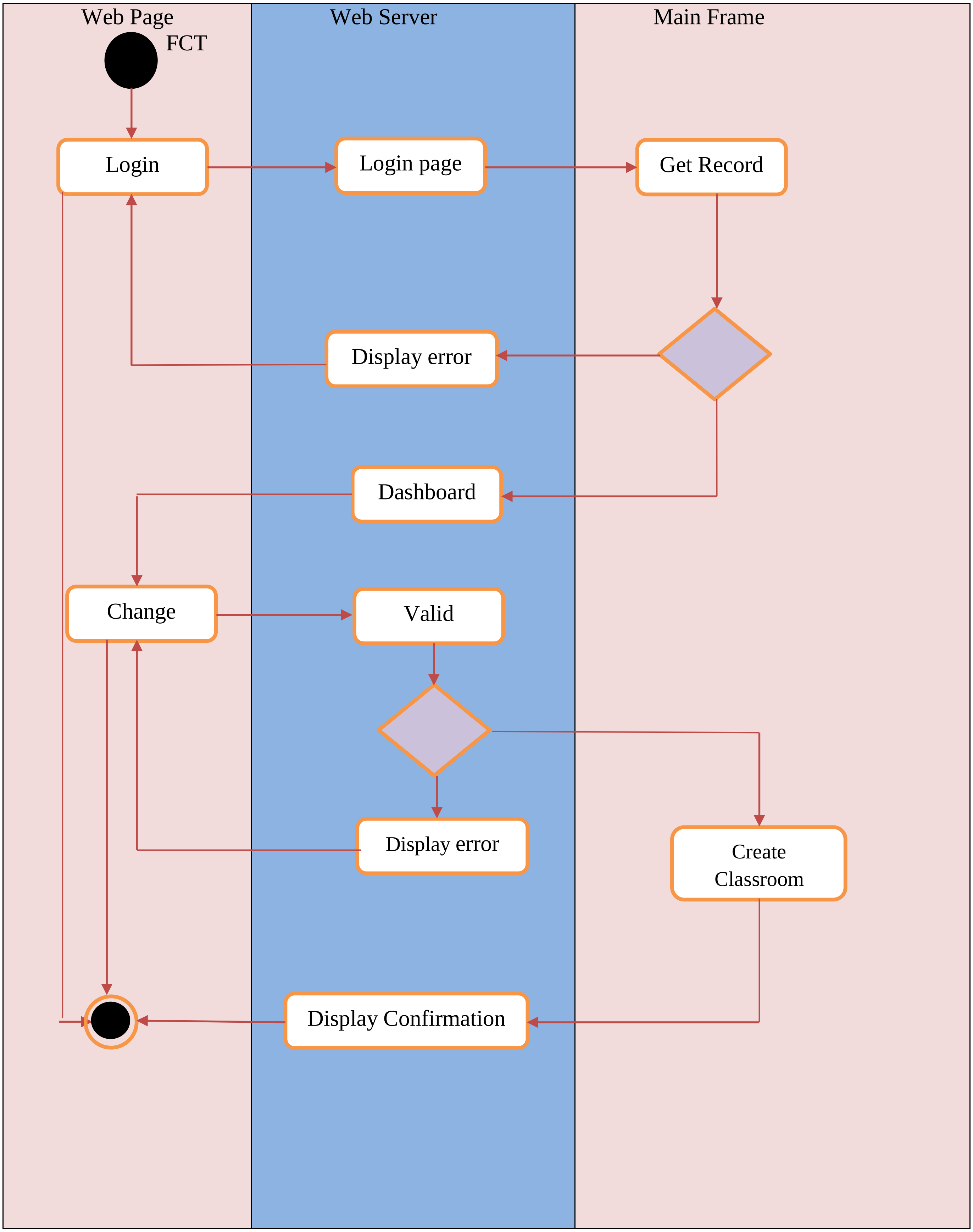
Use case Name	Create Classroom
Area	Remote Classroom and Attendance
Actors	Faculty
Description	Faculty will create classroom for remote learning.

Successor Scenario

Steps	Information
1. Login	Id, password
2. Web server check valid user	
3. Go to dashboard	
4. Click create classroom	
5. Successfully created!	

Alternative Scenario

Steps	Information
2.1 Go to login option.	
2.2 Display error authentication	
2.3 Again try.	


Web Page
Web Server
Main Frame
FCT
Login
Login page
Get Record
Display error
Dashboard
Change
Valid
Display error
Create Classroom
Display Confirmation

USECASE NARRATIVE: (Add Student)

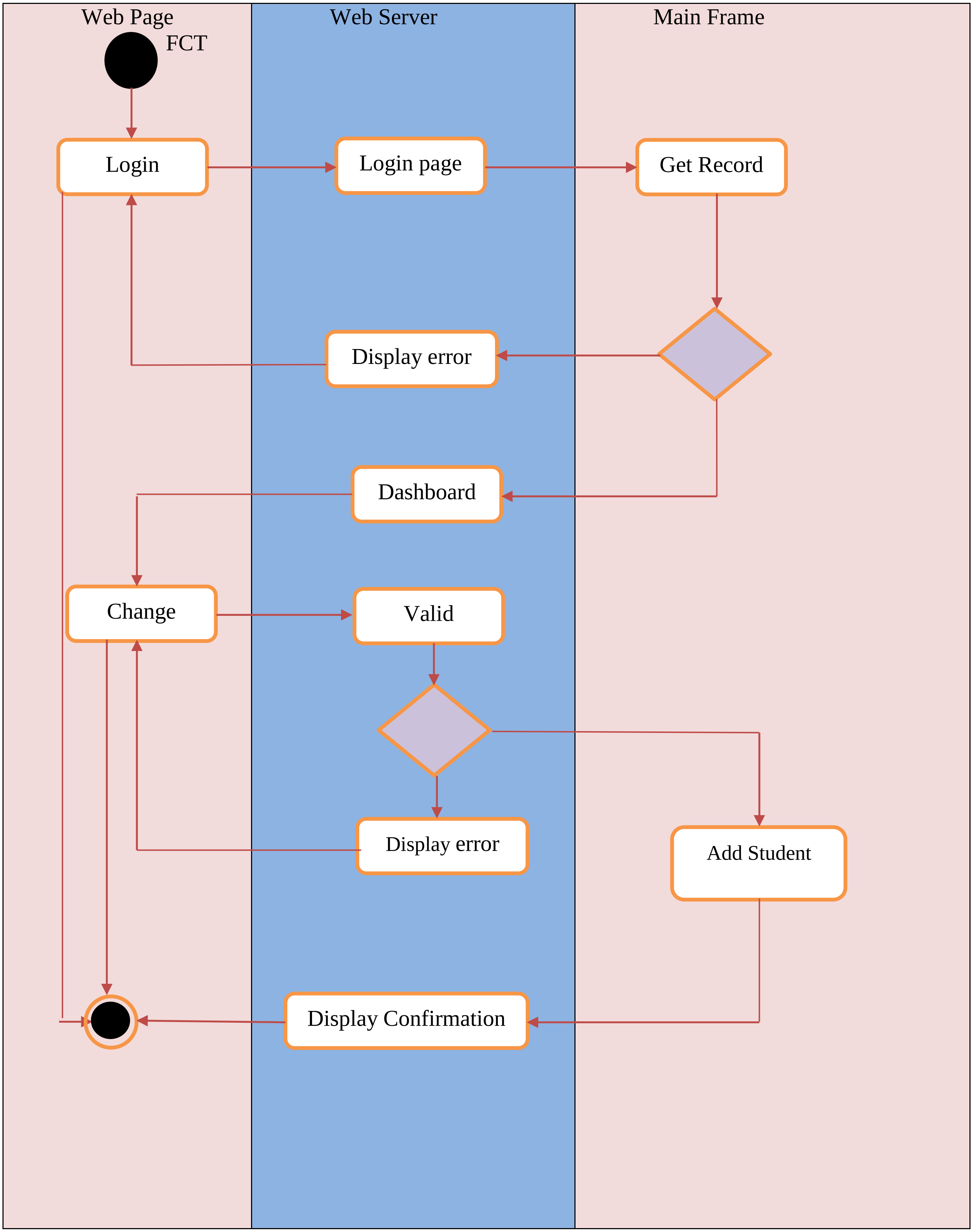
Use case Name	Add Student
Area	Remote Classroom and Attendance Management
Actors	Faculty
Description	After creating classroom faculty can add student to join the classroom.

Successor Scenario

Steps	Information
1. Login	Id, password
2. Web server check valid user	
3. Go to dashboard	
4. Go to desired classroom	
5. Add student	Student id
6. Successfully added!	

Alternative Scenario

Steps	Information
2.1 Go to login option.	
2.2 Display error authentication	
2.3 Again try.	


Web Page
Web Server
Main Frame
FCT
Login
Login page
Get Record
Display error
Dashboard
Change
Valid
Display error
Add Student
Display Confirmation

USECASE NARRATIVE: (Collect Attendance)

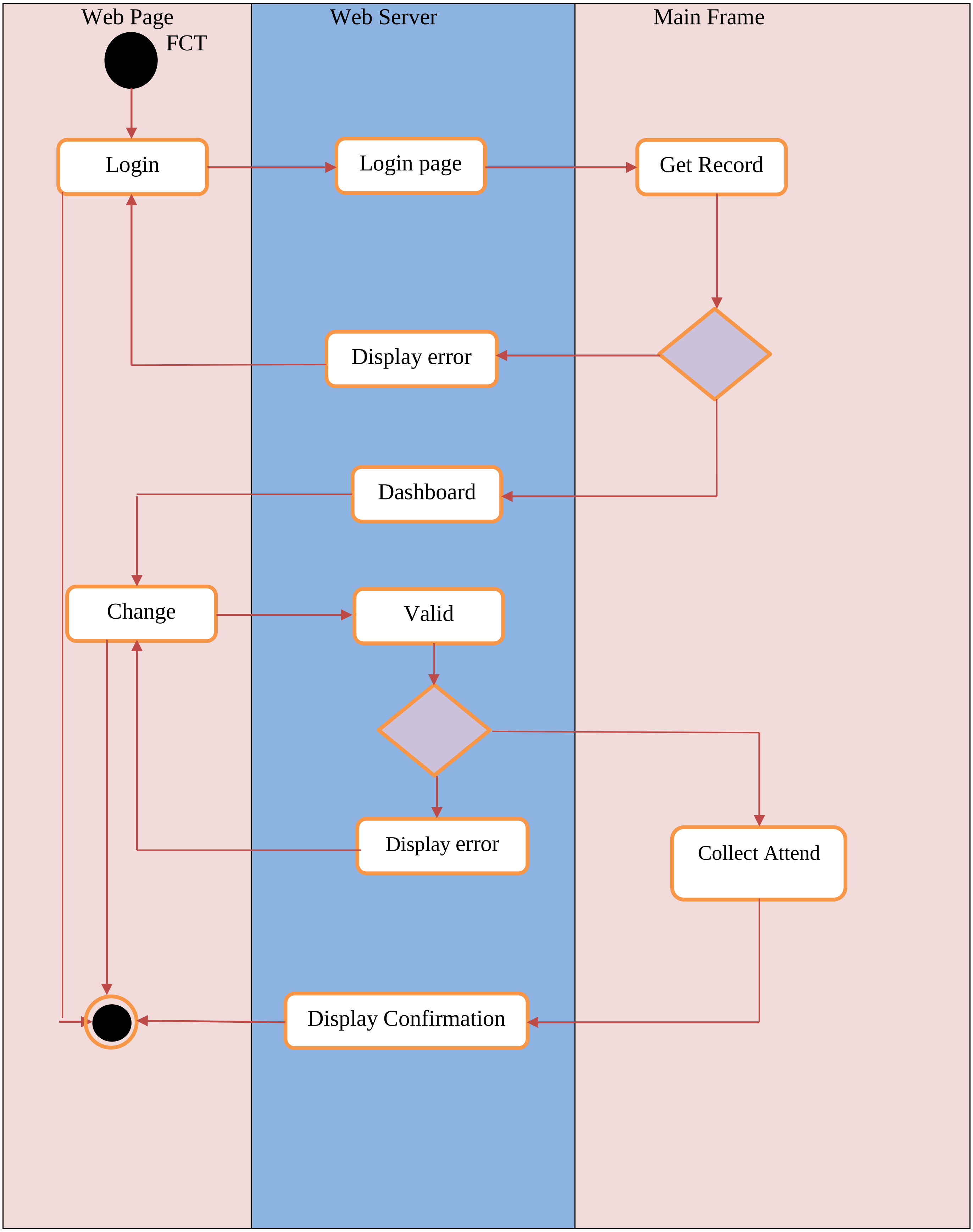
Use case Name	Collect Attendance
Area	Remote Classroom and Attendance
Actors	Faculty
Description	After successful class faculty can take attendance of student with this section.

Successor Scenario

Steps	Information
1. Login	Id, password
2. Web server check valid user	
3. Go to dashboard	
4. Go to classroom	
5. Get response for student	
6. Added to attendance sheet	
7. Successfully complete!	

Alternative Scenario

Steps	Information
2.1 Go to login option.	
2.2 Display error authentication	
2.3 Again try.	


Web Page
Web Server
Main Frame
FCT
Login
Login page
Get Record
Display error
Dashboard
Change
Valid
Display error
Collect Attend
Display Confirmation

USECASE NARRATIVE: (Remove User)

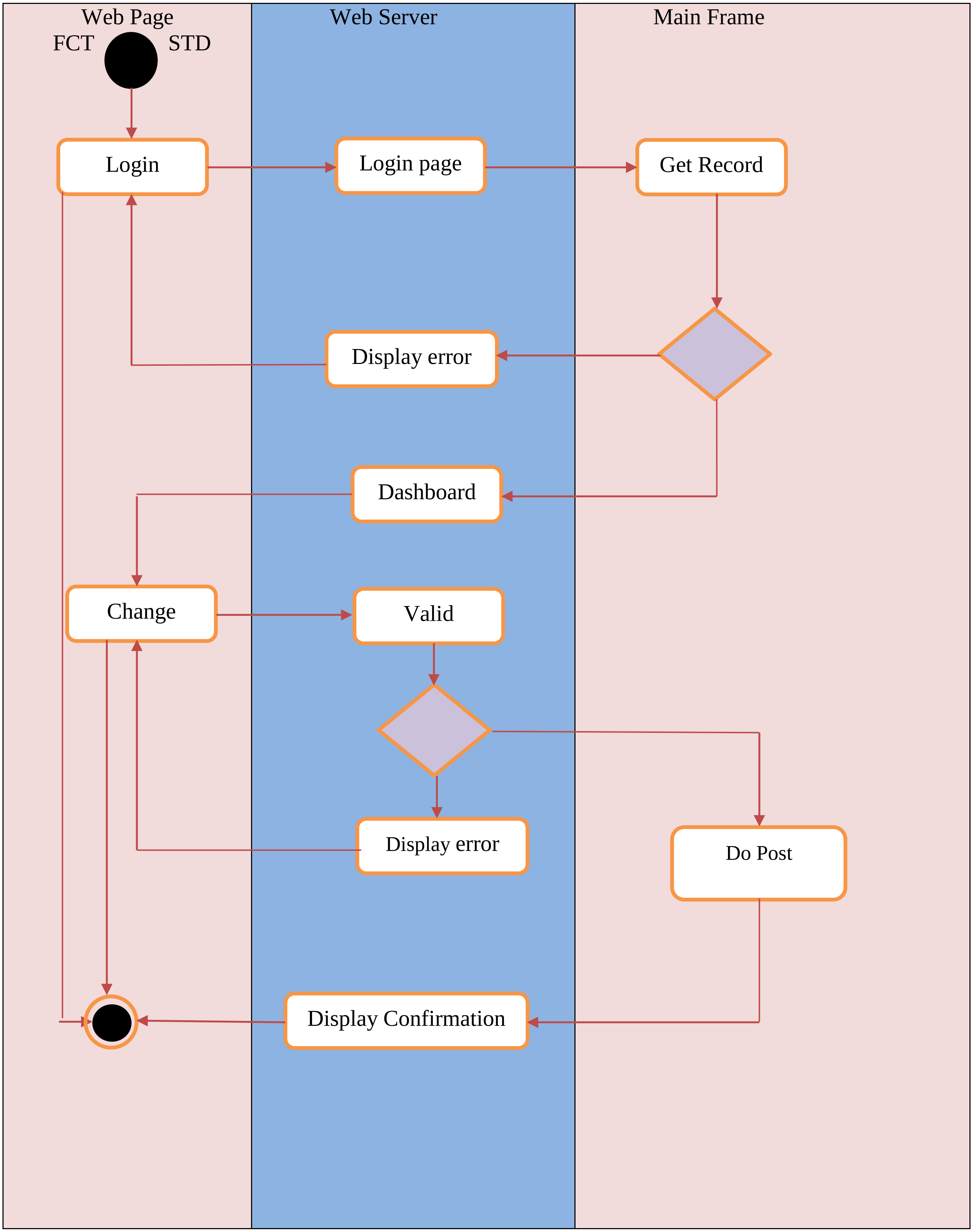
Use case Name	Do Post
Area	Remote Classroom and Attendance
Actors	Faculty, Student
Description	In Classroom student and faculty can post for further information.

Successor Scenario

Steps	Information
1. Login	Id, password
2. Web server check valid user	
3. Go to dashboard	
4. Go to classroom	
5. Create post	
6. Submit post	
7. Successfully posted!	

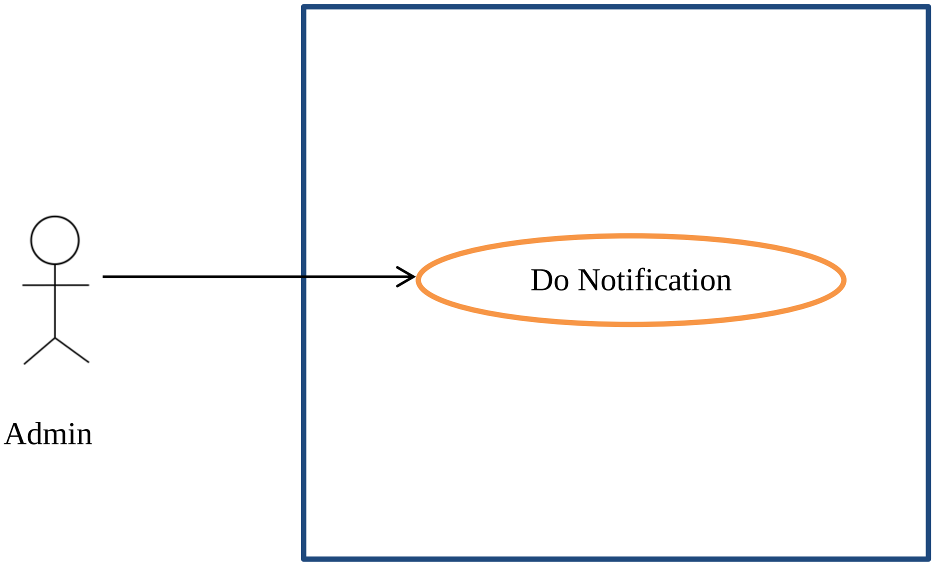
Alternative Scenario

Steps	Information
2.1 Go to login option.	
2.2 Display error authentication	
2.3 Again try.	


Web Page
Web Server
Main Frame
FCT
STD
Login
Login page
Get Record
Display error
Dashboard
Change
Valid
Display error
Do Post
Display Confirmation

Notification Management

USECASE DIAGRAM



USECASE NARRATIVE: (Do Notification)

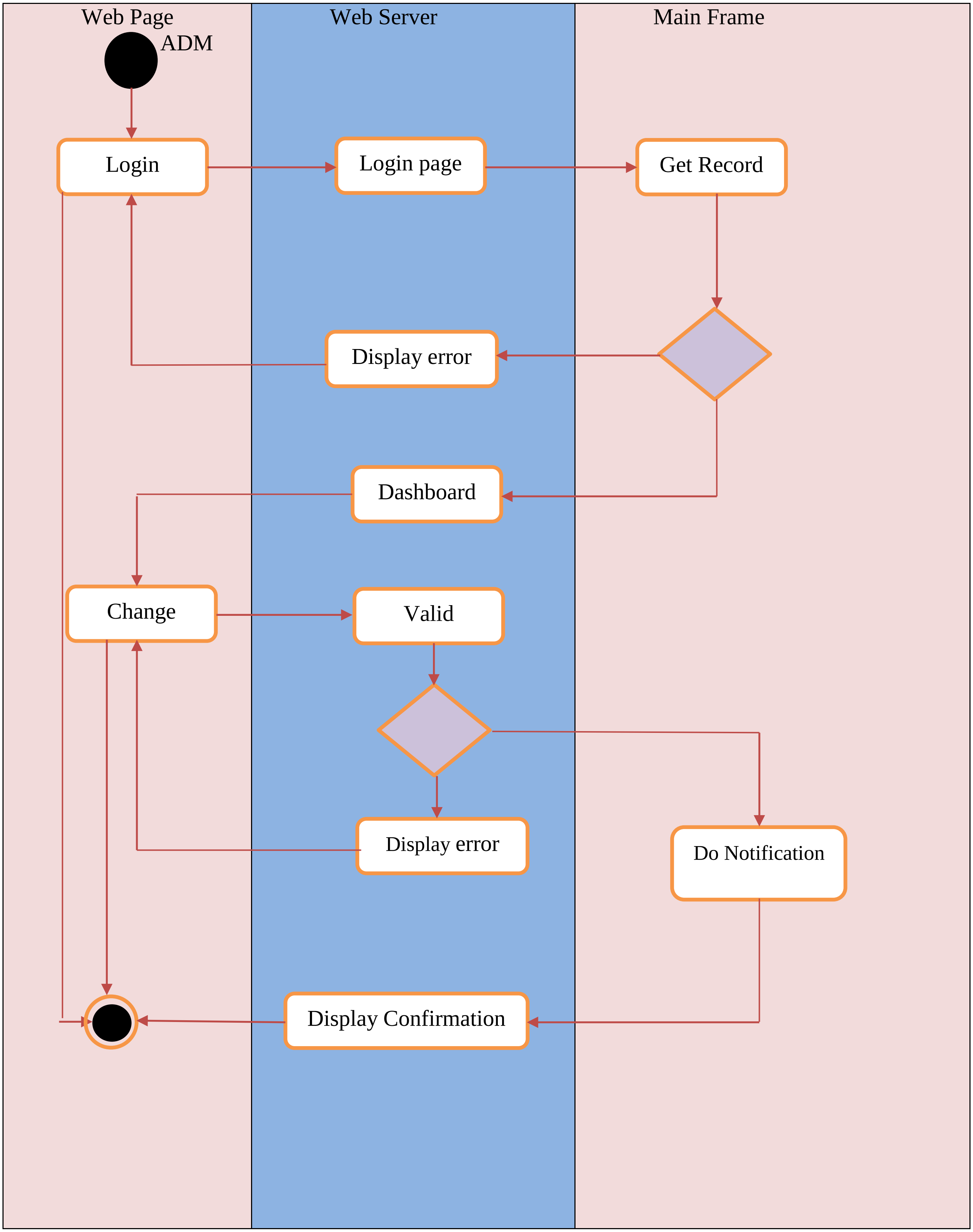
Use case Name	Do Notification
Area	Notification Management
Actors	Admin
Description	Important notice and information will be notifying.

Successor Scenario

Steps	Information
1. Login	Id, password
2. Web server check valid user	
3. Go to dashboard	
4. Do post	
5. Successfully notify	

Alternative Scenario

Steps	Information
2.1 Go to login option.	
2.2 Display error authentication	
2.3 Again try.	


Web Page
Web Server
Main Frame
ADM
Login
Login page
Get Record
Display error
Dashboard
Change
Valid
Display error
Do Notification
Display Confirmation

THANK
YOU!