



BHARATIYA VIDYA BHAVAN'S  
**SARDAR PATEL INSTITUTE OF TECHNOLOGY**  
MUNSHI NAGAR, ANDHERI (WEST), MUMBAI – 400 058.  
(Autonomous College Affiliated to University of Mumbai)  
**MASTER OF COMPUTER APPLICATIONS**

**Academic Year – 2022-23**

Class: F.Y.MCA

Semester: I

Subject: **Software Engineering Lab**

Subject In charge: Nikhita Mangaonkar

Course Code: MC503

**EXPERIMENT NO: 04**

**EXPERIMENT TITLE:** Draw the behavioral view diagram : Activity diagram and sequence

**Objective:**

- 1.To design an Activity Diagram.
- 2.To identify and implement activity diagram notations from a given case study.
- 3.To implement activity diagram specification.
- 4.To design a Sequence Diagram.
- 5.To identify and implement sequence Diagram notations from a given case study.
- 6.To implement Sequence Diagram specification

**DATE TURN 1:**

**DATE TURN 2:**



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**PRACTICAL EVALUATION:**

<b>PI1: On Time</b>	<b>PI2:Performance</b>	<b>PI3: Documentation</b>	<b>PI5 : Lab Ethics</b>	<b>Marks Per Experiment</b>
<b>0.5</b>	<b>3</b>	<b>1</b>	<b>0.5</b>	<b>5</b>

**ACTIVITY DIAGRAM & SPECIFICATION**

<b>Step</b>	<b>User</b>	<b>Server</b>	<b>Business Rules</b>
1	Login		BR_1
2		Validate Details	BR_2
3	Search		BR_3
4	Display data		BR_4
5	Display profile		BR_5
6		Fetch and display data from the database for search and display.	BR_6
7	Display error message		BR_7
8	Delete data		BR_8
9	Update data		BR_9
10	Add data		BR_10
11	Register for notifications		BR_11
12		Update system	BR_12



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BR_id	Business Rules	Business Rule description
BR1	Login, Register	Mandatory username or email password
BR_2	Validate User	Validate details stored in the database or if registering then check if username and password are following conventions.
BR_3	Search	Search data in database
BR_4	Display profile	Fetch data from database
BR_5	Display data	Fetch and display data from the database.
BR_6	Fetch data from database	Fetch and display data from the database
BR_7	Display error message	Show an error message if something goes wrong while fetching data from the database.
BR_8	Delete data	Delete data from database



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BR_9	Update data	Update values of particular data in the database.
BR_10	Add data	Add new data to the database.
BR_11	Register for notifications	Client is registered and browser client key is sent to server and sent for respective user.
BR_12	Update System	Update the system while adding, deleting and updating data.



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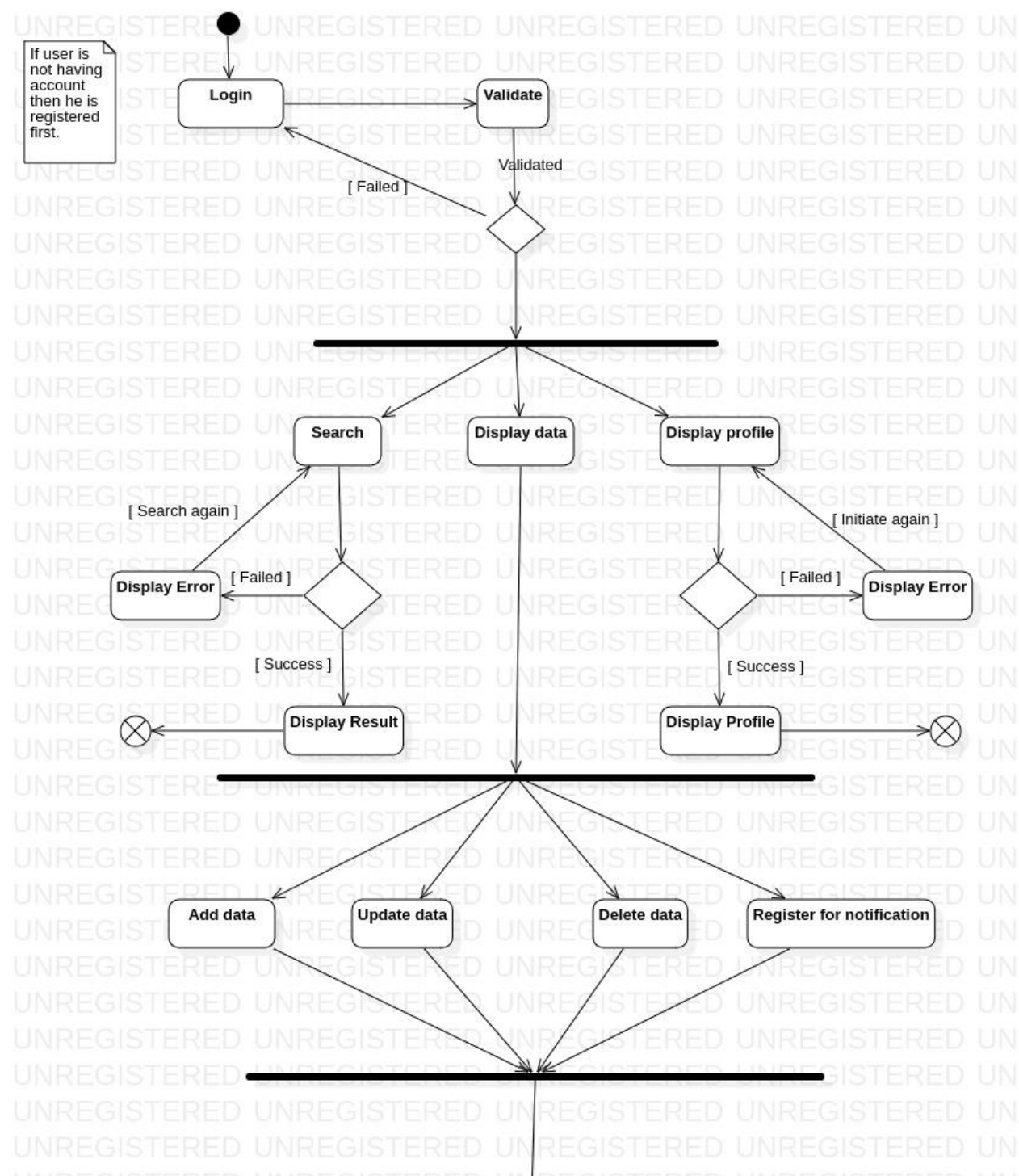
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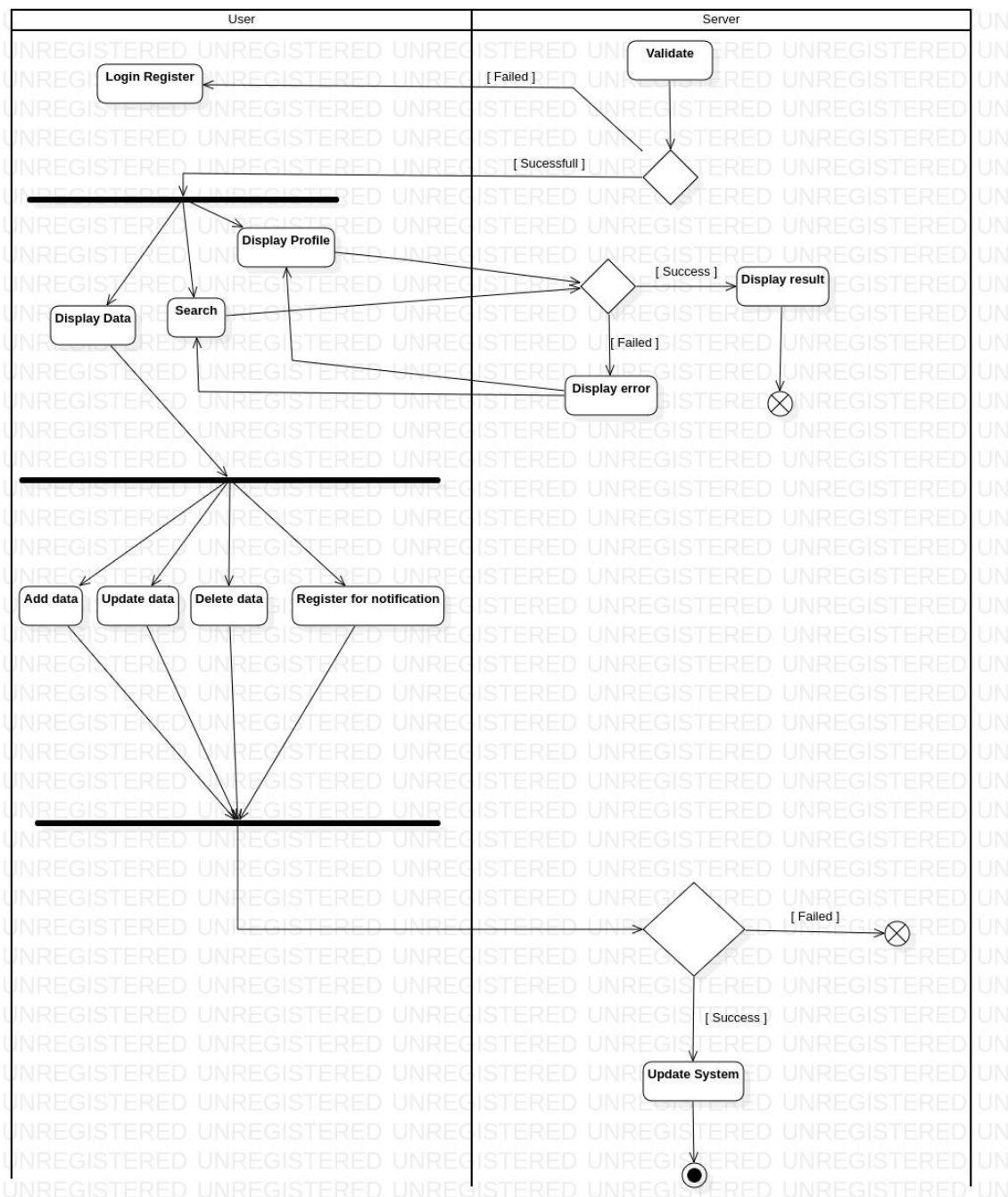
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**ADD SEQUENCE DIG & SPECIFICATION**



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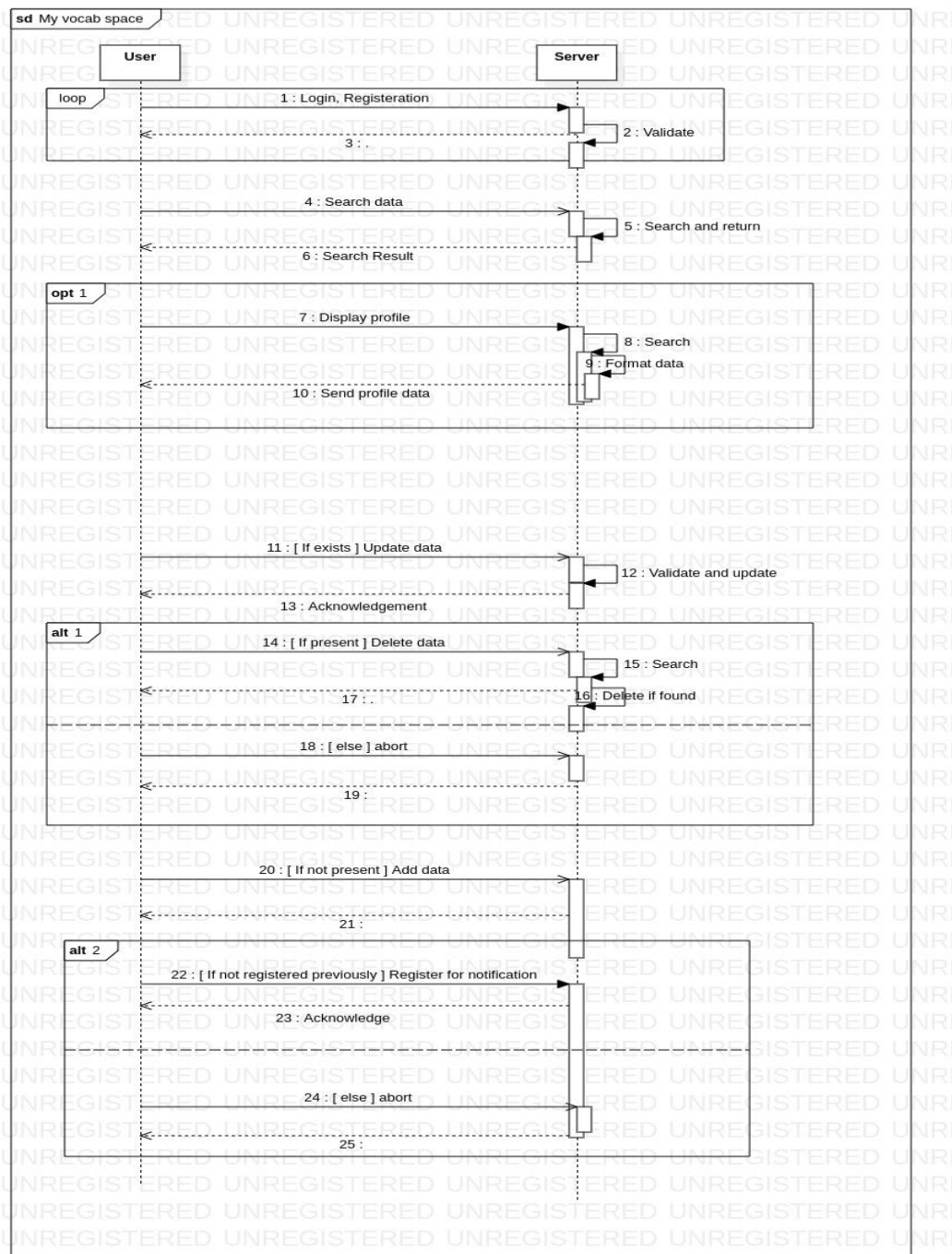
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**Specification for Sequence Diagram**

Sr.No.	Articrafts	Description
1	Objects	User, Server
2	Synchronous messages	Login ,Registration and register for notification.
3	Asynchronous messages	Search data, display profile, update data, Delete data, Add data.
4	Guard	<ol style="list-style-type: none"><li>1. If exists then update data</li><li>2. if exists then delete data</li><li>3. if data does not exist then add new data.</li><li>4. if not registered previously then register for notification.</li></ol>
5	Types of frames	loop, alt, opt
6	Actors	User, Server
7	Self loop	<ol style="list-style-type: none"><li>1. Validate credentials.</li><li>2. Search and return data</li><li>3. Search</li><li>4. format data</li></ol>



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		5. validate and update 6. search and delete 7.
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