



**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**

**Class: F.Y.MCA      Semester: I AY2425      Subject: Software Engineering Lab**

**Subject In charge: Nikhita Mangaonkar**

**Course Code: MC503**

**ROLL NO.: 2024510001**

**BATCH: A**

**NAME: Atharva Vasant Angre**

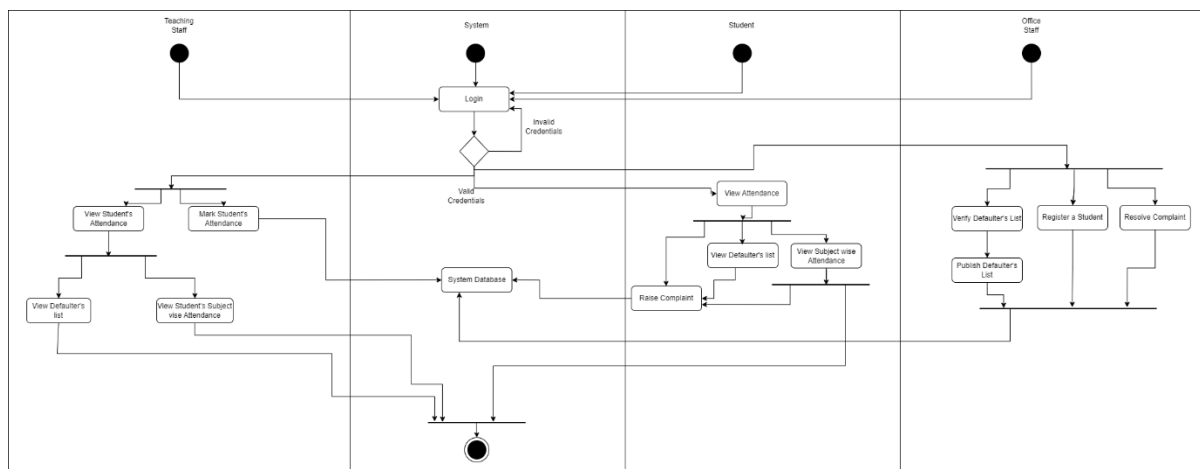
**EXPERIMENT NO: 04**

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

**Objective:**

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

**ACTIVITY DIAGRAM SPECIFICATION**



**For Student**

Step	Student	System	Business Rules
1	Login		BR_1
2		Validate Student Details	BR_2
3	View Attendance		
4	View Subject wise Attendance		
5	View Defaulter's List		
6	Raise a complaint		BR_3
7		Store complaint it in the	BR_4



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		Database	
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ID	Business Rules	Business Rule description
BR_1	Login	Enter Email and Password.
BR_2	Validate Student Details	Check if the entered email and password is valid. If not go to BR_1.
BR_3	Raise a complaint	If take the complaint input.
BR_4	Store it in the Database	Store complaint it in DB.

**For Teaching Staff**

Step	Teaching Staff	System	Business Rules
1	Login		BR_1
2		Validate Teaching Staff Details	BR_2
3	View Student Attendance		
4	Mark Student's Attendance		BR_3
5	View Student subject wise Attendance		
6	View Defaulter's List		

ID	Business Rules	Business Rule description
BR_1	Login	Enter Email and Password.
BR_2	Validate Teaching Staff Details	Check if the entered email and password are valid. If not, go to BR_1.
BR_3	Mark Student's Attendance	Allow input for marking attendance and update the database.

**For Office Staff**

Step	Office Staff	System	Business Rules
1	Login		BR_1
2		Validate Office Staff Details	BR_2
3	Verify Defaulter's List		
4	Publish Defaulter's List		
5		Store it in Database	BR_3
6	Register a student		BR_4
7	Resolve Complaint		BR_5



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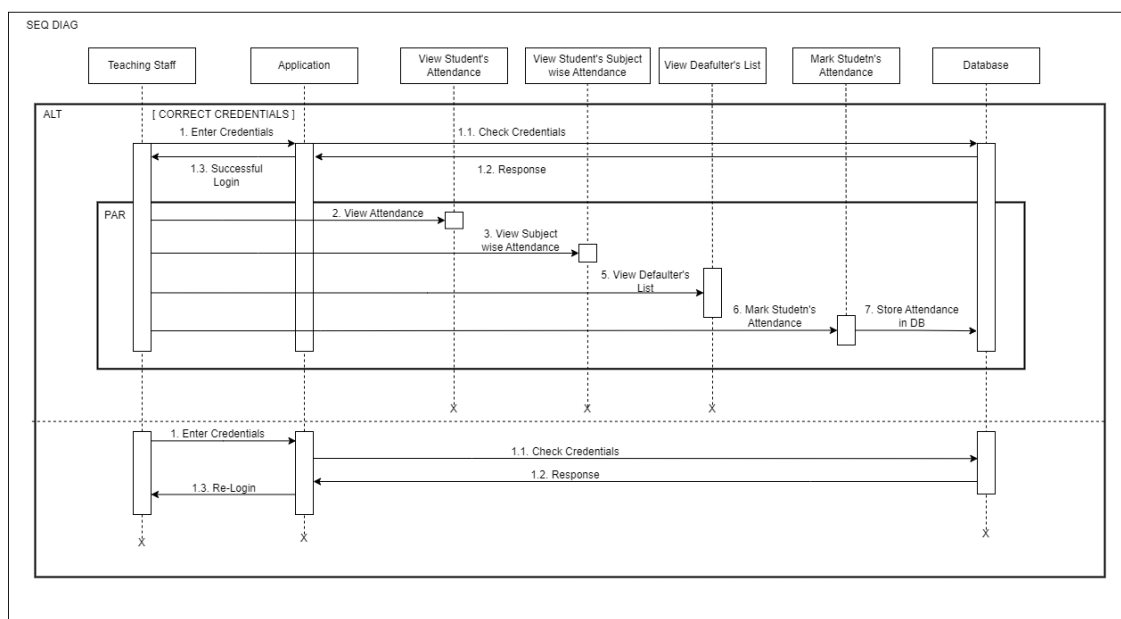
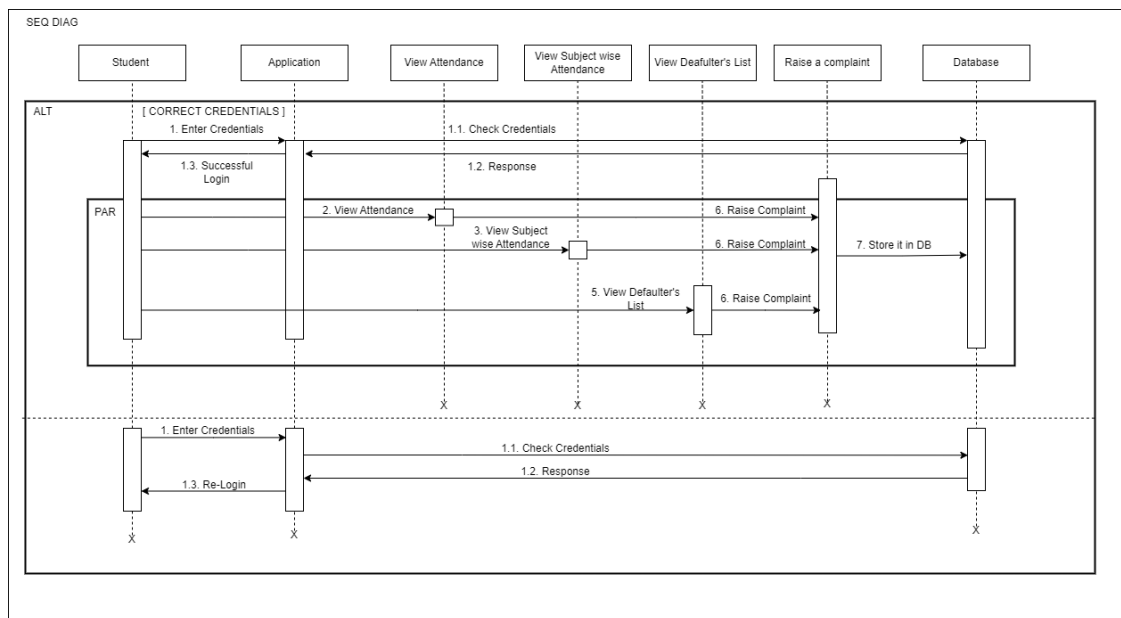
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ID	Business Rules	Business Rule description
BR_1	Login	Enter Email and Password.
BR_2	Validate Teaching Staff Details	Check if the entered email and password are valid. If not, go to BR_1.
BR_3	Store it in the Database	Save the published defaulter's list in the database.
BR_4	Register a student	Allow input for new student registration and update the database.
BR_5	Resolve Complaint	Process the complaint and update its status in the database.

### ADD SEQUENCE DIG & SPECIFICATION





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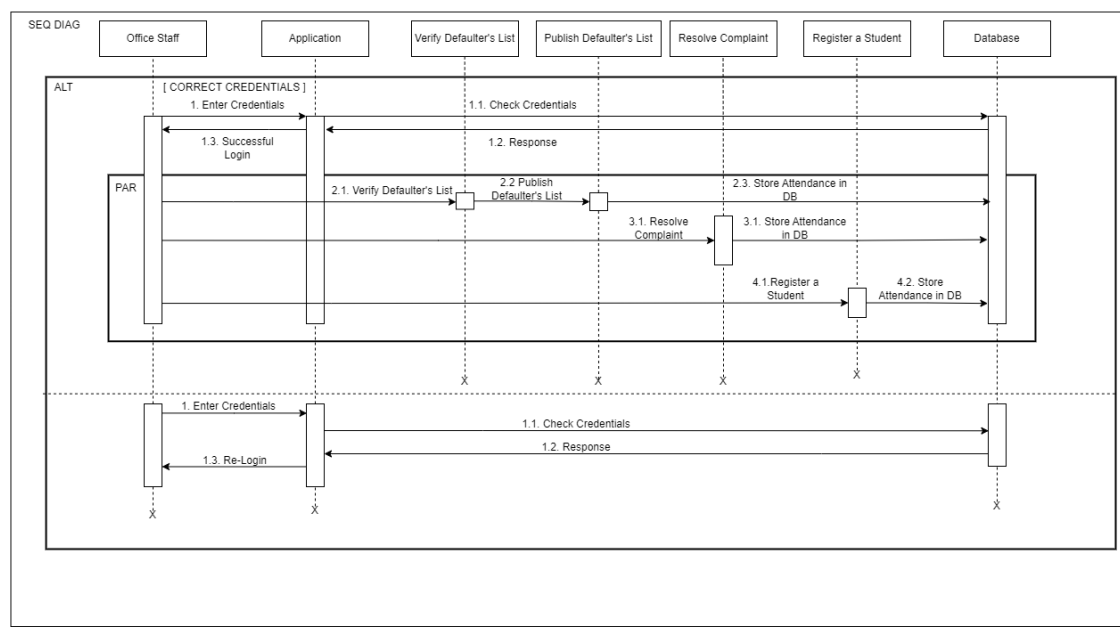
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**Specification for Sequence Diagram**

**For Student**

Sr.No.	Articrafts	Description
1	Objects	Student, Application, View Attendance, View Subject-wise Attendance, View Defaulter's List, Raise a Complaint, Database
2	Synchronous messages	Enter Credentials → Check Credentials, Check Credentials → Response, View Attendance → Response, Raise Complaint → Store in DB
3	Asynchronous messages	
4	Guard	[CORRECT CREDENTIALS], [INCORRECT CREDENTIALS]
5	Types of frames	ALT (Alternative) and PAR (Parallel)
6	Actors	Student, Application
7	Self loop	



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**For Teaching Staff**

Sr.No.	Articrafts	Description
1	Objects	Teaching Staff, Application, View Student's Attendance, View Student's Subject-wise Attendance, View Defaulter's List, Mark Student's Attendance, Database
2	Synchronous messages	Enter Credentials → Check Credentials, Check Credentials → Response, View Attendance → Response, Mark Student's Attendance → Store Attendance in DB
3	Asynchronous messages	
4	Guard	[CORRECT CREDENTIALS], [INCORRECT CREDENTIALS]
5	Types of frames	ALT (Alternative) and PAR (Parallel)
6	Actors	Teaching Staff, Application
7	Self loop	

**For Office Staff**

Sr.No.	Articrafts	Description
1	Objects	Office Staff, Application, Verify Defaulter's List, Publish Defaulter's List, Resolve Complaint, Register a Student, Database
2	Synchronous messages	Enter Credentials → Check Credentials, Check Credentials → Response, Verify Defaulter's List → Publish Defaulter's List, Register a Student → Store Attendance in DB
3	Asynchronous messages	
4	Guard	[CORRECT CREDENTIALS], [INCORRECT CREDENTIALS]
5	Types of frames	ALT (Alternative) and PAR (Parallel)
6	Actors	Office Staff, Application
7	Self loop	