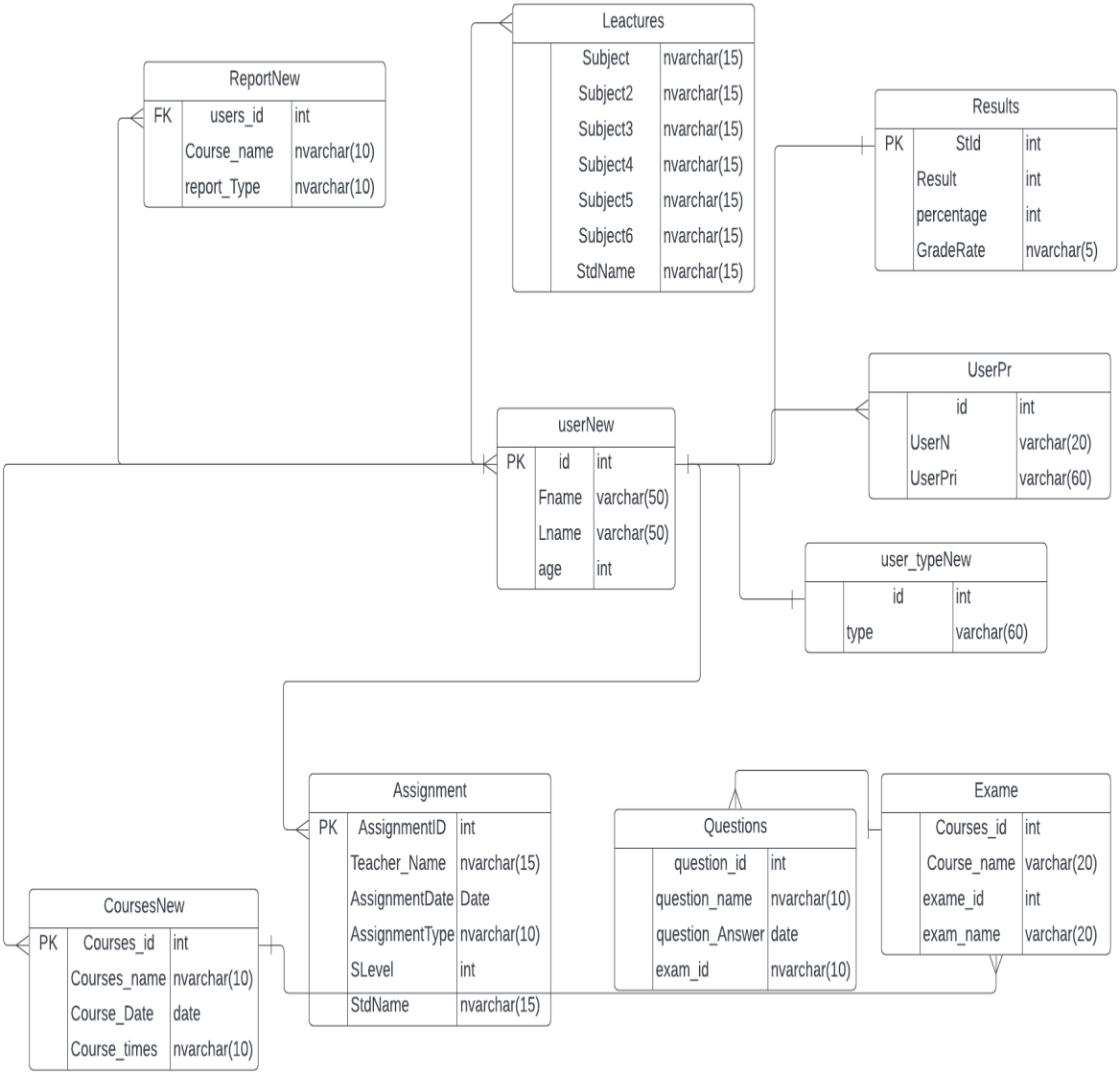
THE DESCRIPTION OF THE SOFTWARE

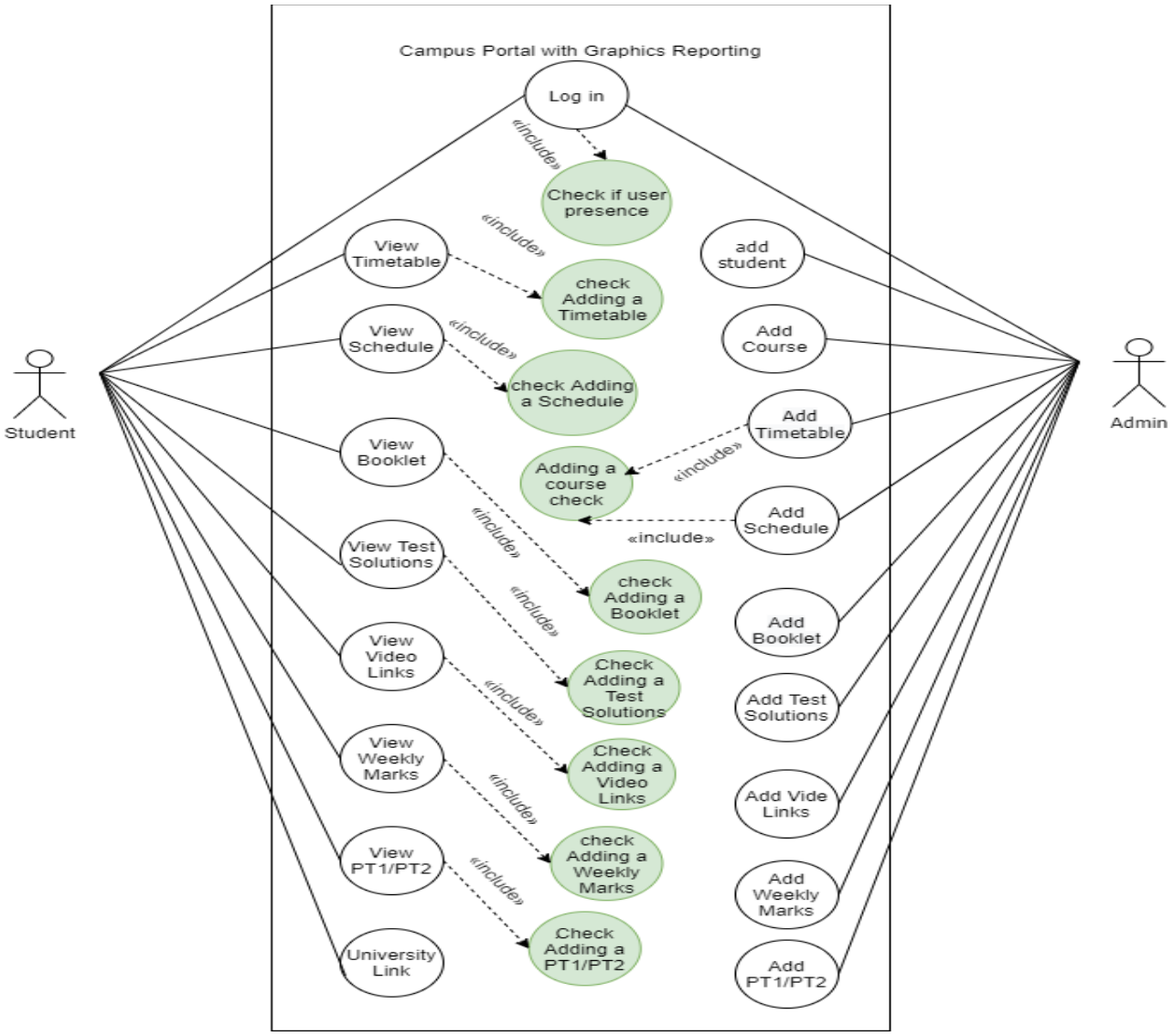
Learning management system

You can for the admin Add, update and delete users &user type , Add, update and delete user privilege (can view/update lectures, can submit assignments) You can Add, update and delete course , and Add update and delete Assignment and we also can Add update and delete lecture and you can Generate reports about how students doing in each course. ,You can Add, update and delete exams and its questions , and Assign students to exams based on registered courses and Correct exams and generate results and Generate exam statistics (pass percentage, percentage of A+ for example) ,And student can register courses and view them and he can register assignments and exams.

SQL Schema diagram



Use Case Diagram



USE case scenarios

Identifier and name	UC1 log in
Initiator	student or admin
Goal	Login to the system
Precondition	The presence of the administrator or the student in the databases
Postcondition	The system will be entered by the admin or student

Main success scenario

1. The admin or the student enters the username
2. If the username was entered incorrectly, the admin or the student was informed
3. The admin or the student enters the password
4. If the password was entered incorrectly, the admin or the student was informed
5. Searching for data in databases
6. Login to the system

Extensions

1. There is no user data in the databases
2. Not entering the system.
3. If the data is found, the system will be entered

_____
_____
_____

Identifier and name	UC2 add student
Initiator	admin
Goal	Add a student to the system
Precondition	Having a date of birth and an e-mail
Postcondition	add a student

Main success scenario

1. Enter the student's name
2. Enter email
3. If the wrong extension is entered, inform the admin
4. Enter date of birth
5. Age must be more than 17 years
6. Determine the course
7. Determine the semester
8. The system create a password
9. A random password containing letters and numbers is generated
10. The system create the student ID
11. A random identifier is generated from numbers
12. The system will send the username, ID and password to the student's e-mail.

Identifier and name	UC3 Add Course
Initiator	admin
Goal	Add a course to the system
Precondition	The presence of a doctor who teaches the course
Postcondition	The course will be added and made available to students on the system

Main success scenario

1. Enter the course name
2. Enter the semester
3. Add study subjects
4. Adding the course to the system and databases

Identifier and name	UC4 Add Timetable
Initiator	admin
Goal	Add the Timetable to the system

Precondition	There is a course to add the Timetable to it
Postcondition	Add the Timetable to the system and make it available to students

Main success scenario

1. Select the course
2. If a non-existent course has been selected, show a message to the admin and inform him
3. Determine the semester
4. Upload the Timetable as an image with the extension .jpg to databases so that students can access it.
5. If the Timetable is Upload ed with an extension other than .jpg Show an error message to the admin
6. Upload the Timetable as an image with the extension . jpg to the system

Extensions

1. There is a course for which a table is added
2. Search the databases for the name of the course
3. If the course is not present, the admin news does not have the ability to add the table

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Identifier and name	UC5 Add Schedule
Initiator	admin
Goal	Add Schedule to the system

Precondition	There is a course to add the Schedule to it
Postcondition	Add the Schedule to the system and make it available to students

Main success scenario

1. Select the course
2. If a non-existent course has been selected, show a message to the admin and inform him
3. Determine the semester
4. Upload the Schedule as an image with the extension .jpg to databases so that students can access it.
5. If the Schedule is Upload ed with an extension other than .jpg Show an error message to the admin
6. Upload the Schedule as an image with the extension . jpg to the system.

Extensions

1. There is a course for which a schedule is added
2. Search the databases for the name of the course
3. If the course is not present, the admin news does not have the ability to add the schedule

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Identifier and name	UC6 Add Bookle
Initiator	admin

Goal	Add Bookle to the system
Precondition	There is a course to add the booklet to it
Postcondition	Add the booklet to the system and make it available to students

Main success scenario

1. Select the course
2. If a non-existent course has been selected, show a message to the admin and inform him
3. Determine the semester
4. Enter the name of the book
5. file selection
6. Upload the book as an file with the extension .pdf to databases so that students can access it.
7. If the booklet is Upload ed with an extension other than .pdf Show an error message to the admin
8. Upload the book as an file with the extension . pdf to the system.

Identifier and name	UC7 add Test Solutions
Initiator	admin
Goal	add Test Solutions to the system

Precondition	There is a test on system that is not uploaded has solutions
Postcondition	Upload test solutions to the system and make them available to students

Main success scenario

1. Select the course
2. If a non-existent course has been selected, show a message to the admin and inform him
3. Determine the semester
4. Enter the name of the test solutions
5. file selection
6. Upload the test solutions as an file with the extension .pdf to databases so that students can access it.
7. If the test solutions is Upload ed with an extension other than .pdf Show an error message to the admin
8. Upload the test solutions as an file with the extension . pdf to the system.

Identifier and name	UC8 Add Vide Links
Initiator	admin
Goal	Add Vide Links to the system

Precondition	There is nothing
Postcondition	uploaded URL video to the system and made available to students for reference subject

Main success scenario

1. Select the course
2. If a non-existent course has been selected, show a message to the admin and inform him
3. Determine the semester
4. Enter the website name
5. Upload the URL video to databases so that students can access it.
6. Upload the URL video to the system.

Identifier and name	UC9 Add Weekly Marks
Initiator	admin
Goal	Add Weekly Marks to the system
Precondition	Having previous exams
Postcondition	Upload Weekly Marks to the system and make them available to students

Main success scenario

1. Select the course
2. If a non-existent course has been selected, show a message to the admin and inform him
3. Determine the semester
4. Add the student's name
5. add name subject
6. The admin adds the student's grades out of 25
7. Determine the week

Identifier and name	UC10 Add PT1/PT2
Initiator	admin
Goal	Add PT1/PT2 to the system
Precondition	Having previous exams
Postcondition	Upload PT1/PT2 Marks to the system and make them available to students

Main success scenario

1. Select the course
2. If a non-existent course has been selected, show a message to the admin and inform him
3. Choose pt1 or pt2
4. The grade will be added to all subjects
5. Add the student's name
6. The admin adds the student's grades out of 25 to all subjects

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Identifier and name	UC11 View Timetable
Initiator	Student
Goal	Student's ability to view timetable
Precondition	Previous Timetable uploaded
Postcondition	Table display student's ability to zoom in and out

Main success scenario

1. The table is displayed as an image.
2. The student zoom in and out the image

Extensions

1. Make sure that there is a Timetable in the database
2. If there is no Timetable show message to the student that no tables have not been uploaded yet

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Identifier and name	UC12 View Schedule
Initiator	Student

Goal	Student's ability to View Schedule
Precondition	Previous Schedule uploaded
Postcondition	Schedule display student's ability to zoom in and out

Main success scenario

1. The Schedule is displayed as an image.
2. The student zoom in and out the image

Extensions

1. Make sure that there is a Schedule in the database
2. If there is no Schedule show message to the student that no tables have not been uploaded yet

---

Identifier and name	UC13 View Booklet
Initiator	Student
Goal	Student's ability to View Booklet
Precondition	Previous Booklet uploaded
Postcondition	The student can view the list of brochures that are limited to his/her course and the semester he/she is in They are

displayed by default by Google Docs.

Main success scenario

1. show list booklet
2. When clicking on a book are viewed by default by Google docs

Extensions

1. Make sure that there is a booklet in the database
2. If there is no booklet show message to the student that no tables have not been uploaded yet

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Identifier and name	UC14 Test Solutions
Initiator	Student
Goal	Student's ability to view Test Solutions
Precondition	Previous Test Solutions uploaded
Postcondition	The student can see the list of test solutions that are limited to his/her course and The class that defaults to Google Docs

Main success scenario

1. A list of test solutions is displayed
2. When clicking on a test solutions are viewed by default by Google docs

Extensions

1. Make sure that there is a test solutions in the database
2. If there is no test solutions show message to the student that no tables have not been uploaded yet

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Identifier and name	UC15 View Video Links
Initiator	Student
Goal	Student's ability to View Video Links
Precondition	Previous Video Links uploaded
Postcondition	directed to the dedicated web link

Main success scenario

1. A list of Video Links is displayed
2. When clicking on a Video Link It is transferred to the dedicated web link

Extensions

1. Make sure that there is a Video Links in the database
2. If there is no Video Links show message to the student that no tables have not been uploaded yet

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Identifier and name	UC16 View Weekly Marks
Initiator	Student
Goal	Student's ability to View Weekly Marks
Precondition	Previous Weekly Marks uploaded
Postcondition	the marks are displayed as a Bar Report.

Main success scenario

The Student can see his weekly marks and the marks are displayed as a Bar Report.

Extensions

1. Make sure that there is a weekly marks in the database
2. If there is no weekly marks show message to the student that no tables have not been uploaded yet

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Identifier and name	UC17 View PT1/PT2
Initiator	Student
Goal	Student's ability to View PT1/PT2
Precondition	Previous PT1/PT2 uploaded

Postcondition	Markers appear in the form of two reports, the line graph and the pie chart. o Line chart divided into 3 parts (highest, average and student marks) to help the student With his progress and rank o The pie chart shows only student scores.

Main success scenario

1. When selecting pt1 see the marks in the form of 2 reports namely Line Chart and Pie Chart.
2. Displays the line chart that contains the color of each subject and the student's grade point average in all subjects
3. Displays the Pie chart that contains the color of each subject and the student's grade point average in all subjects

Extensions

1. Make sure that there is a PT1/PT2 marks in the database
2. If there is no PT1/PT2 marks show message to the student that no tables have not been uploaded yet

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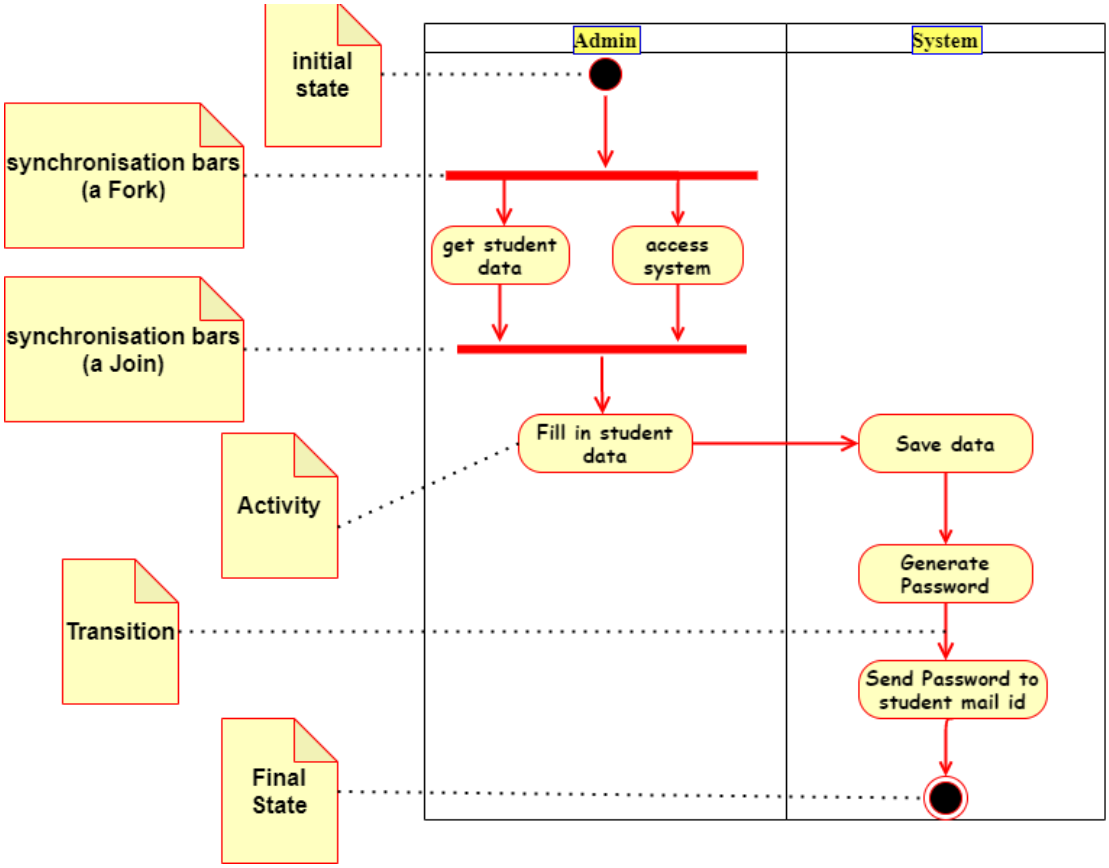
Identifier and name	UC15 University Link
Initiator	Student
Goal	Student's ability to View Video Links

Precondition	There is nothing
Postcondition	The link is redirected to the Web

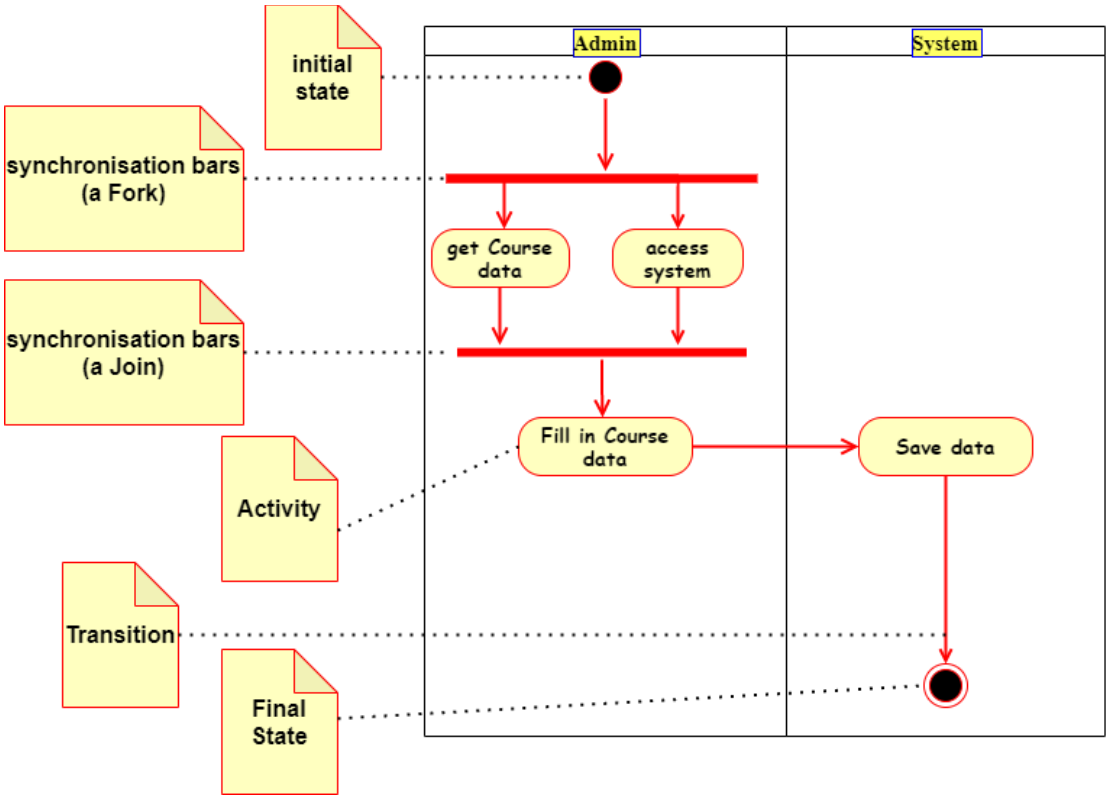
Main success scenario

when pressed The link is redirected to the Web

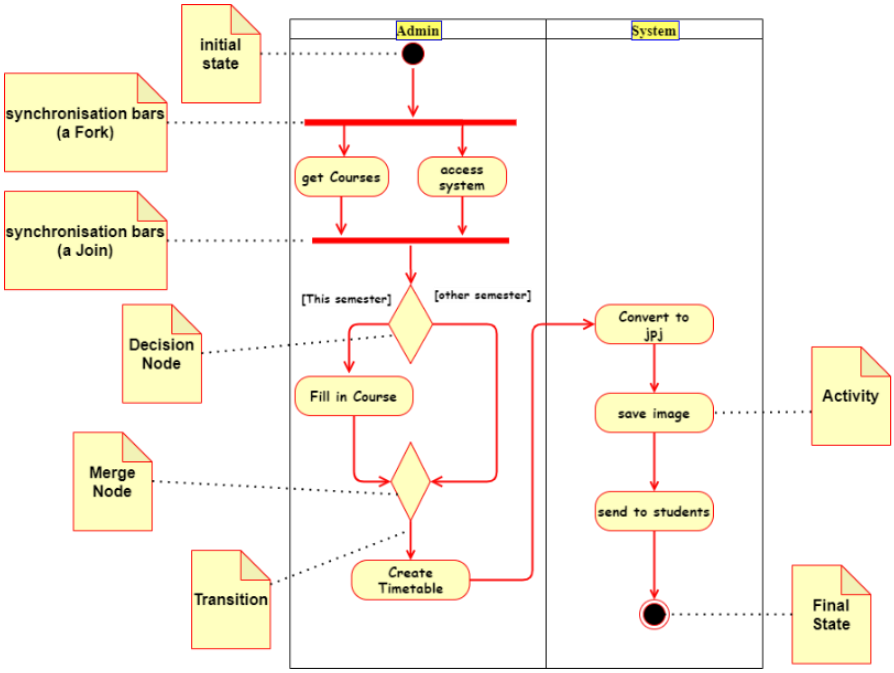
Add Student



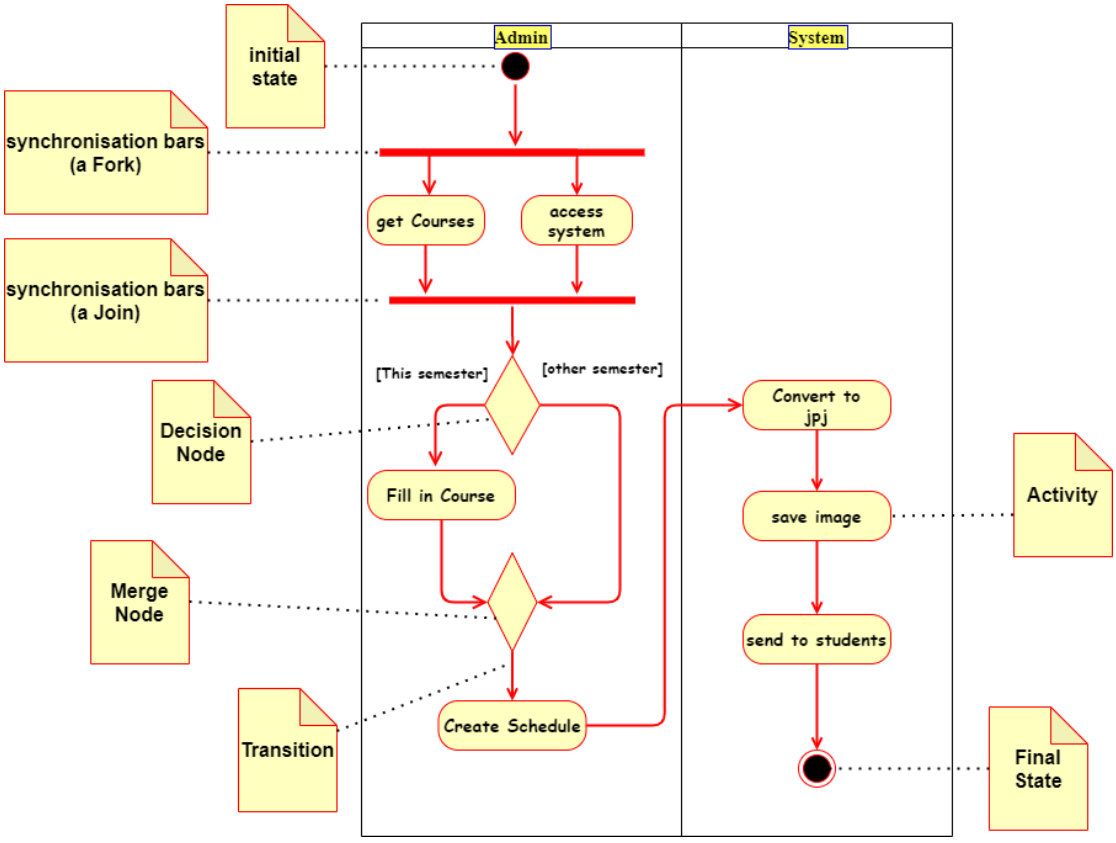
Add Course



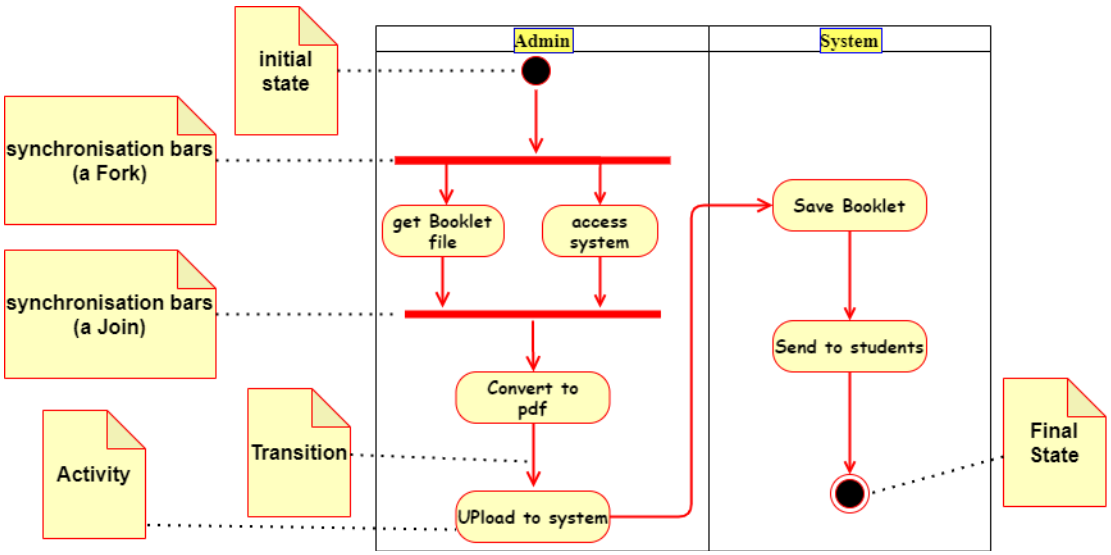
Add Timetable



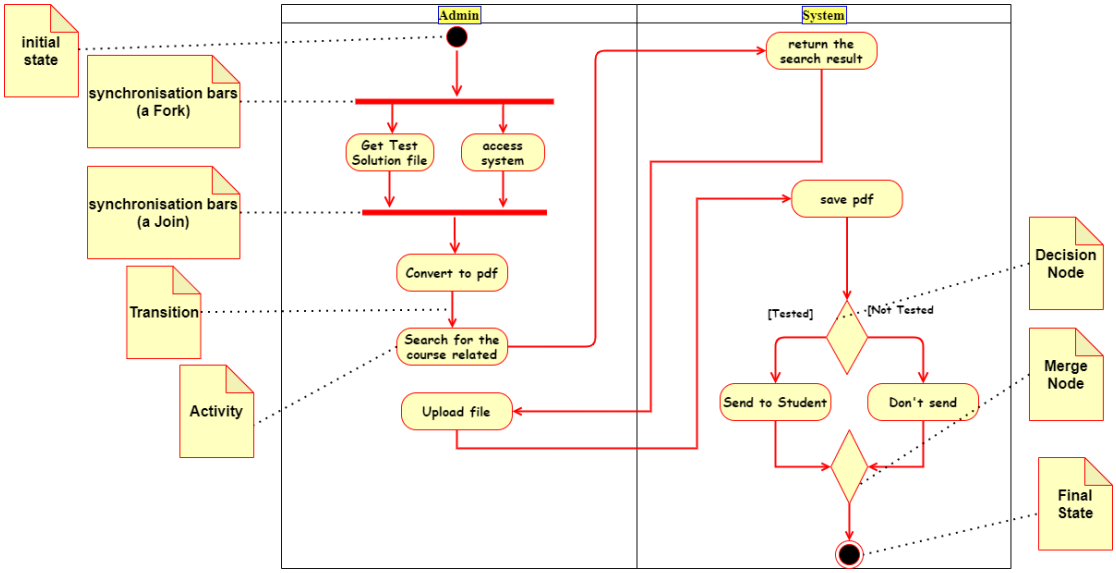
Add Schedule



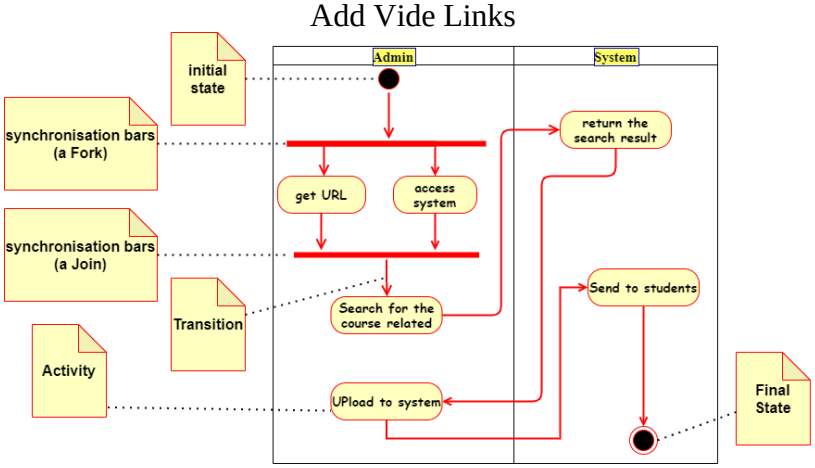
Add Booklet



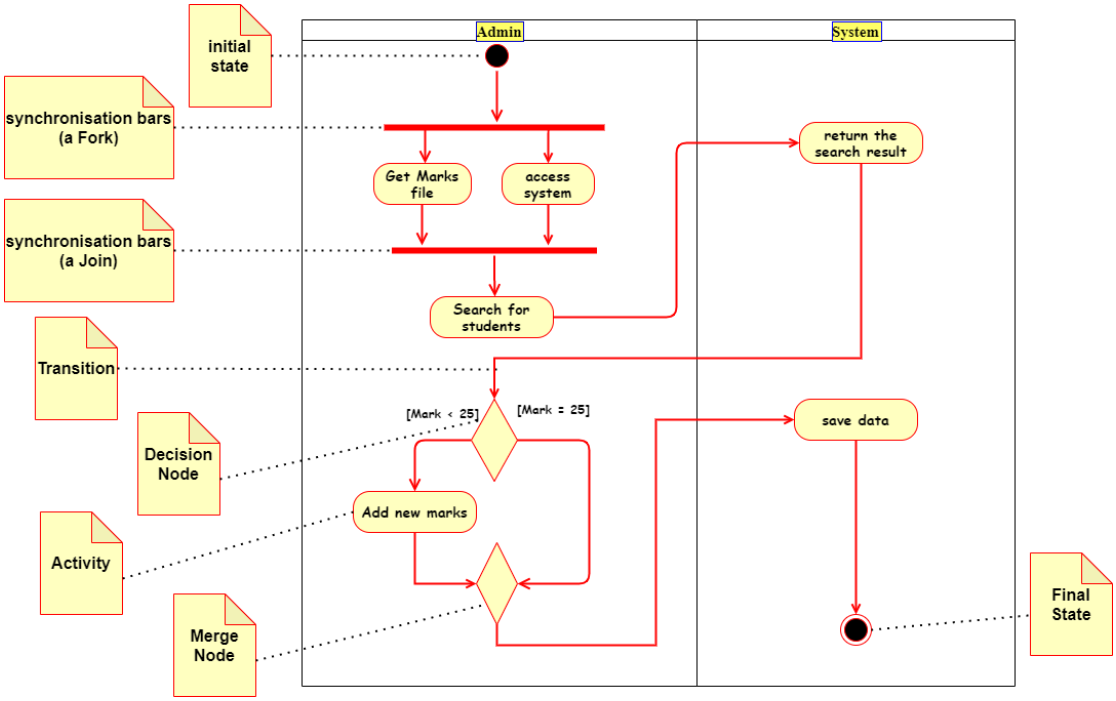
Add Test Solutions



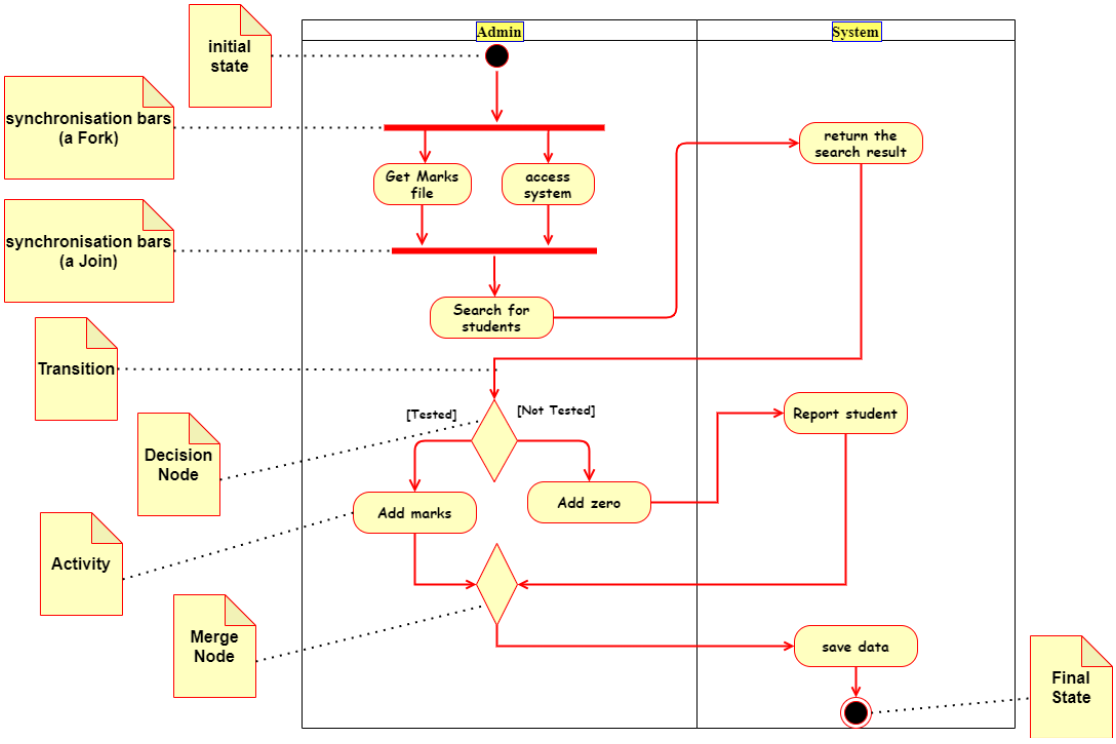
Add Vide Links



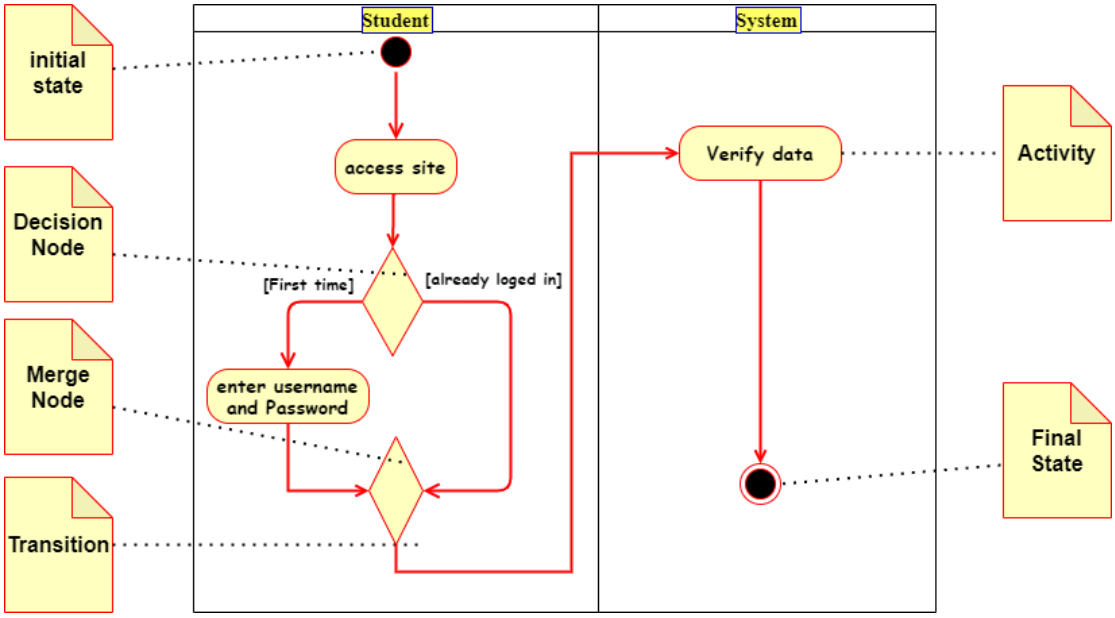
Add Weekly Marks



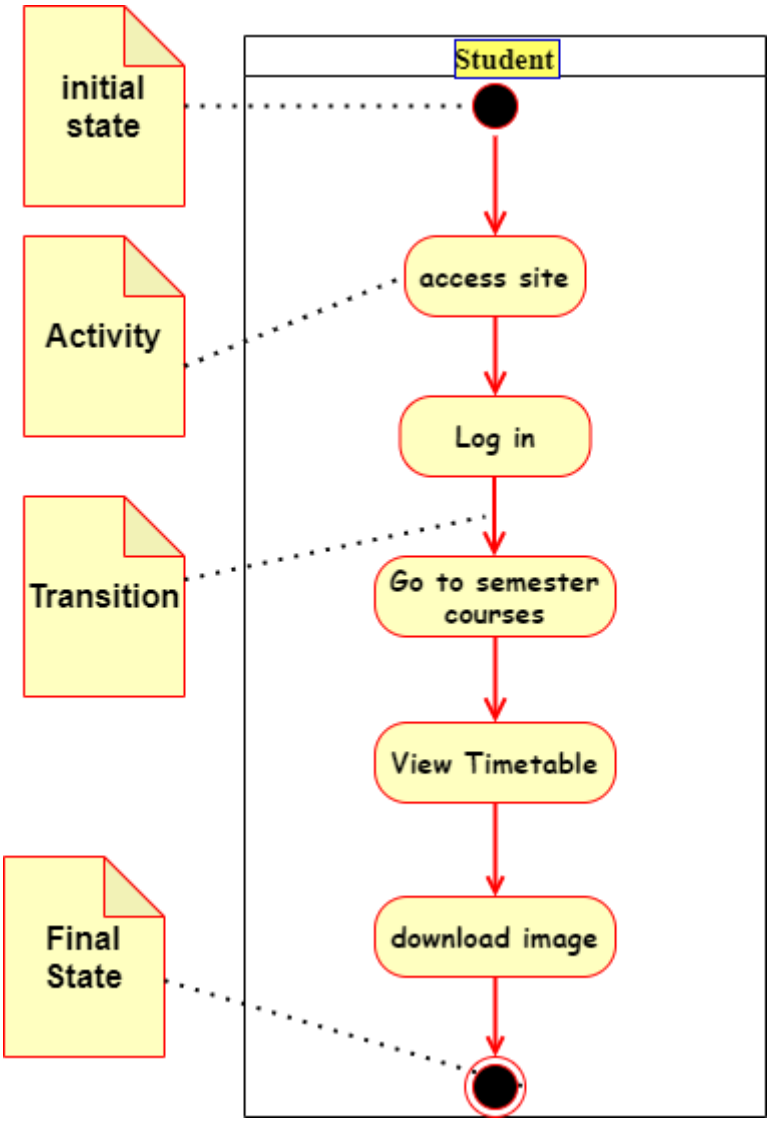
Add PT1/PT2



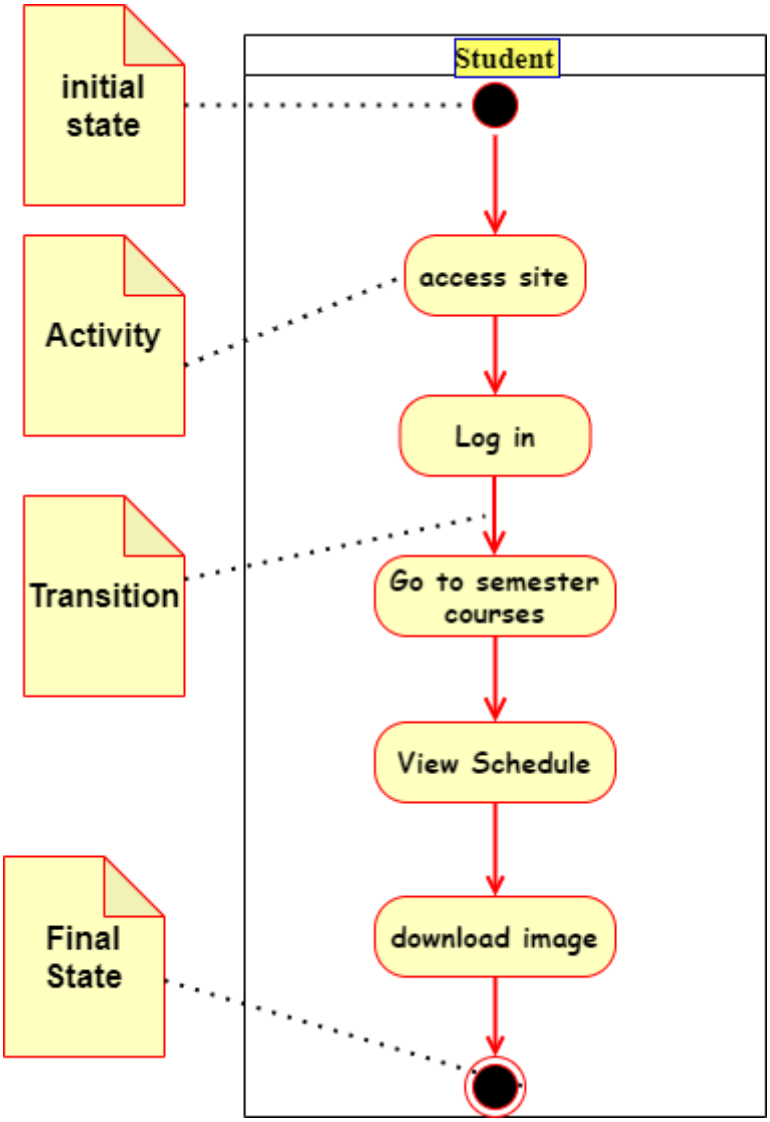
Student Login



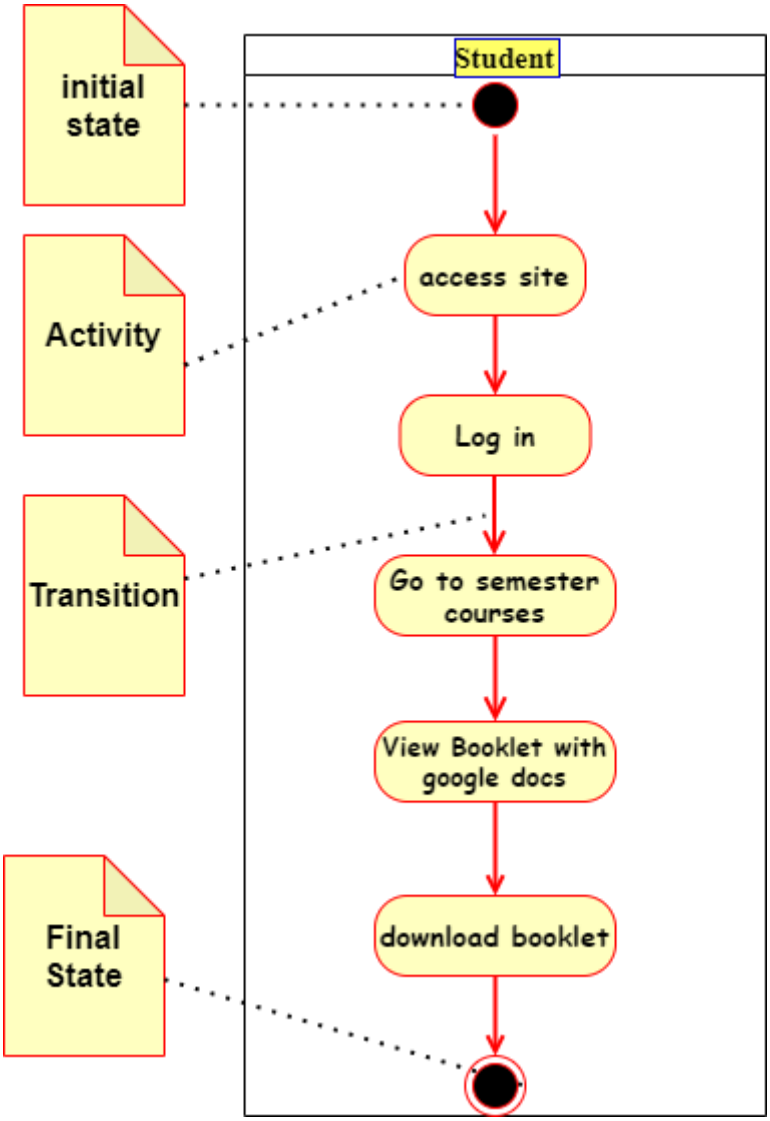
View Timetable



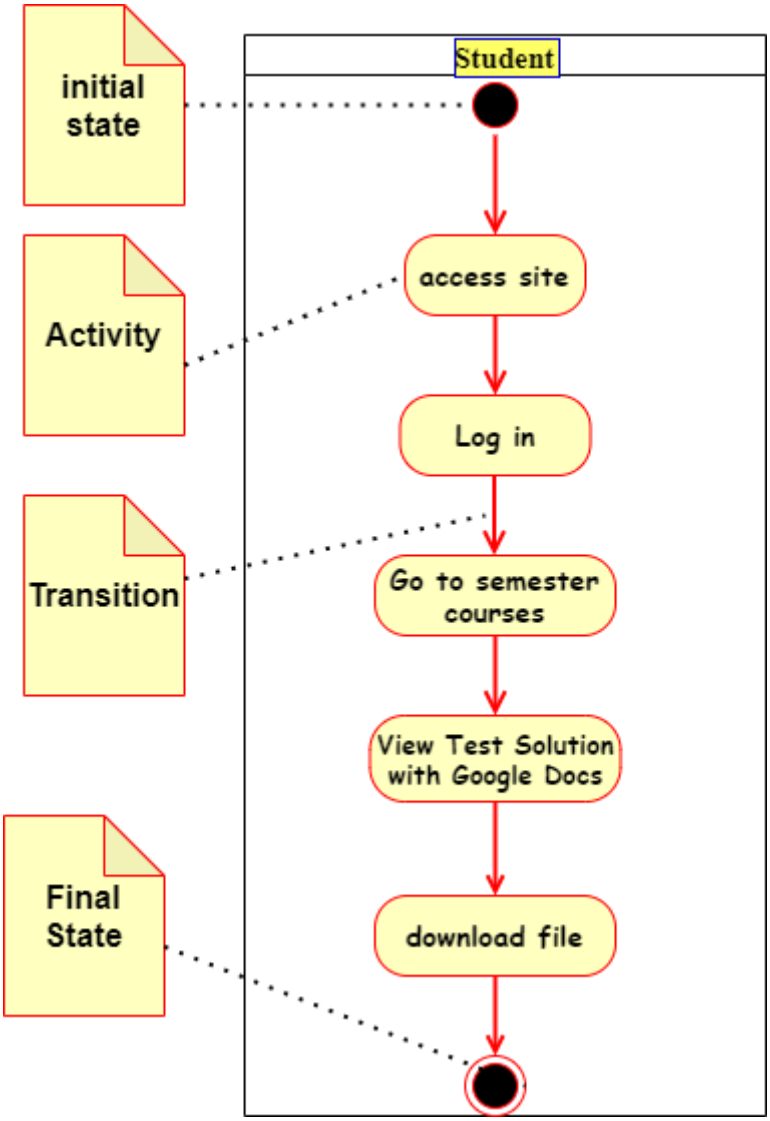
View Schedule



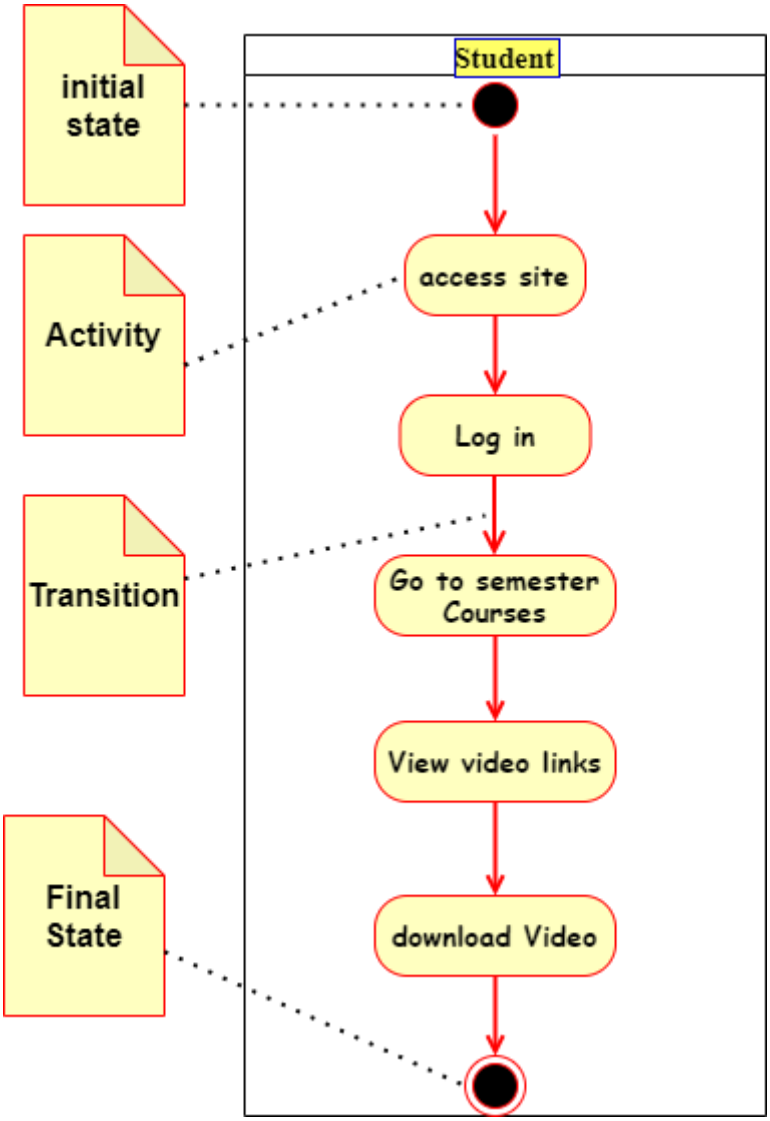
View Booklet



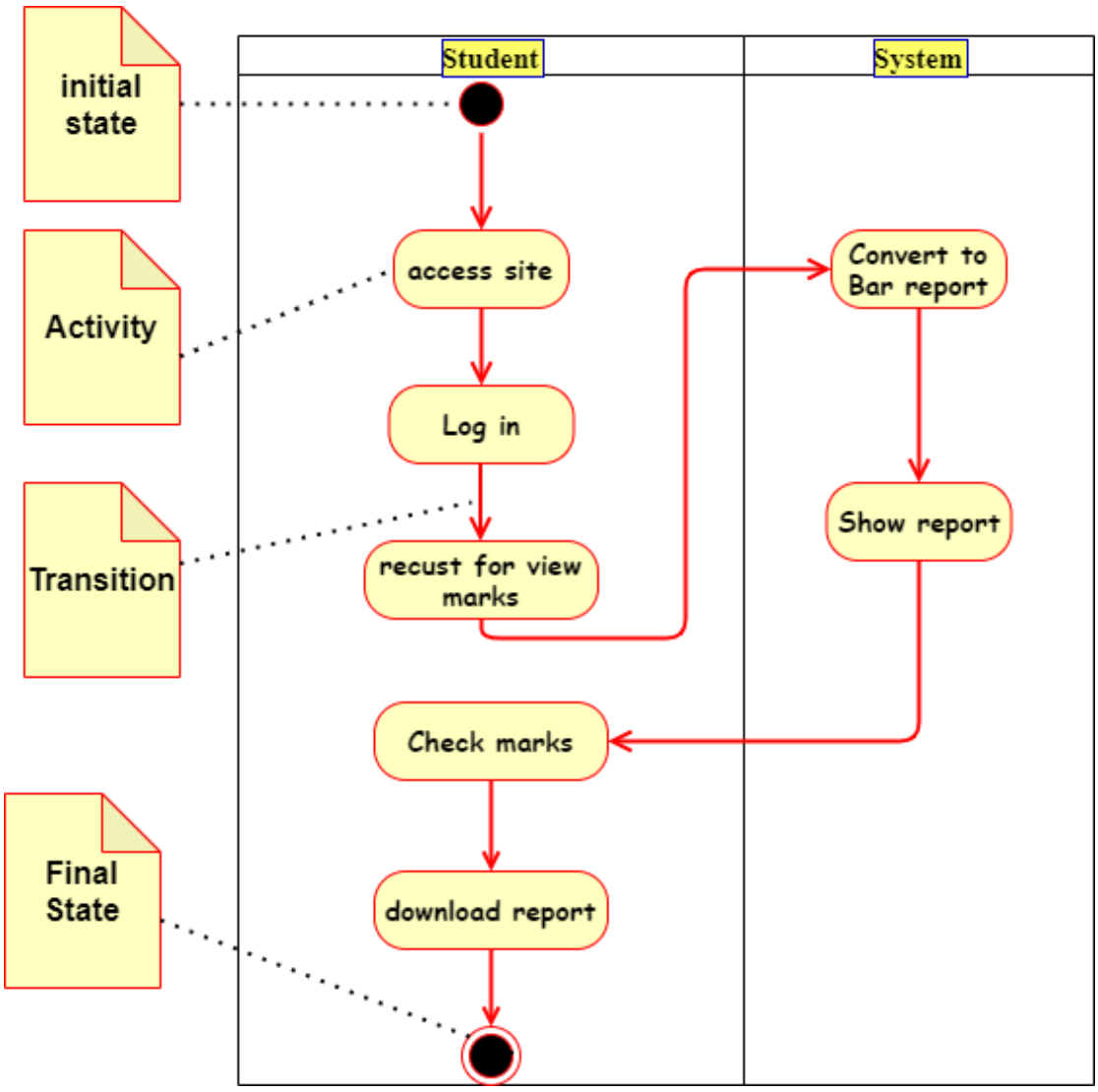
View Test Solutions



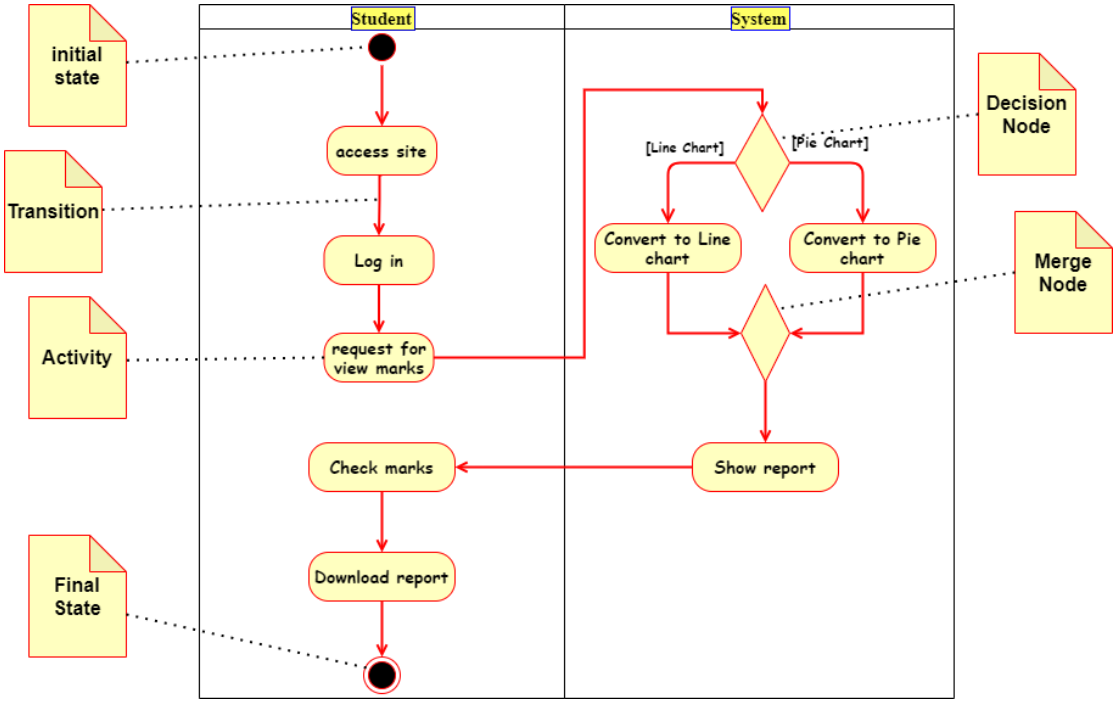
View Video Links



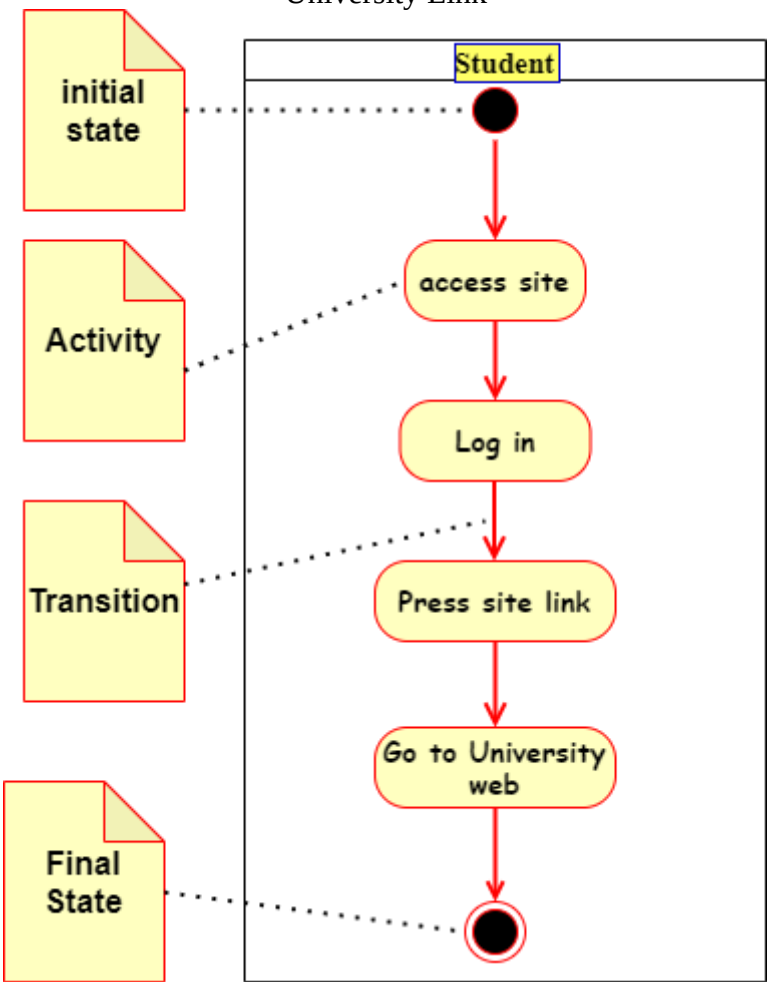
View Weekly Marks


initial state
Activity
Transition
Final State
Student
System
access site
Log in
recust for view marks
Convert to Bar report
Show report
Check marks
download report

View PT1/PT2

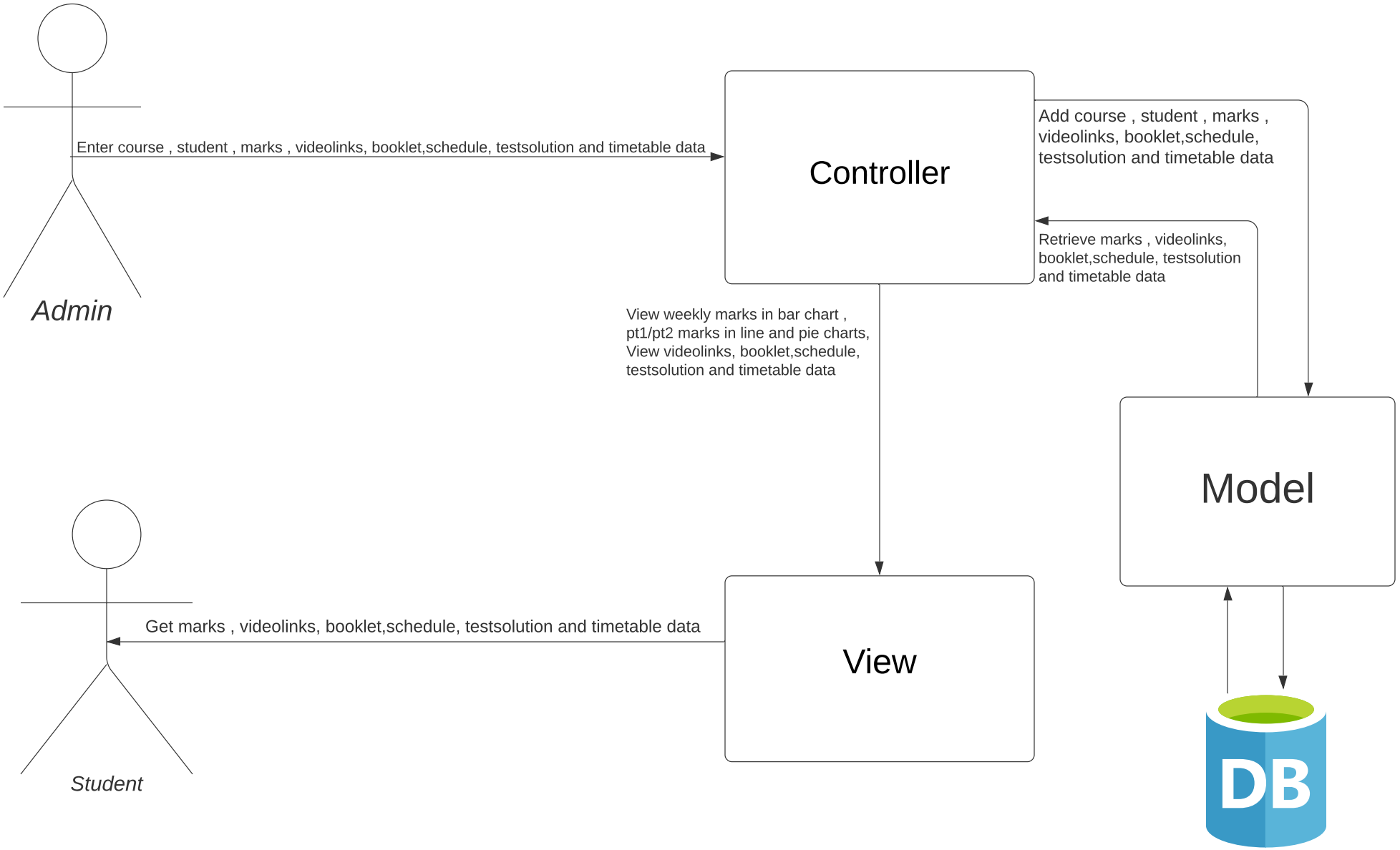


University Link

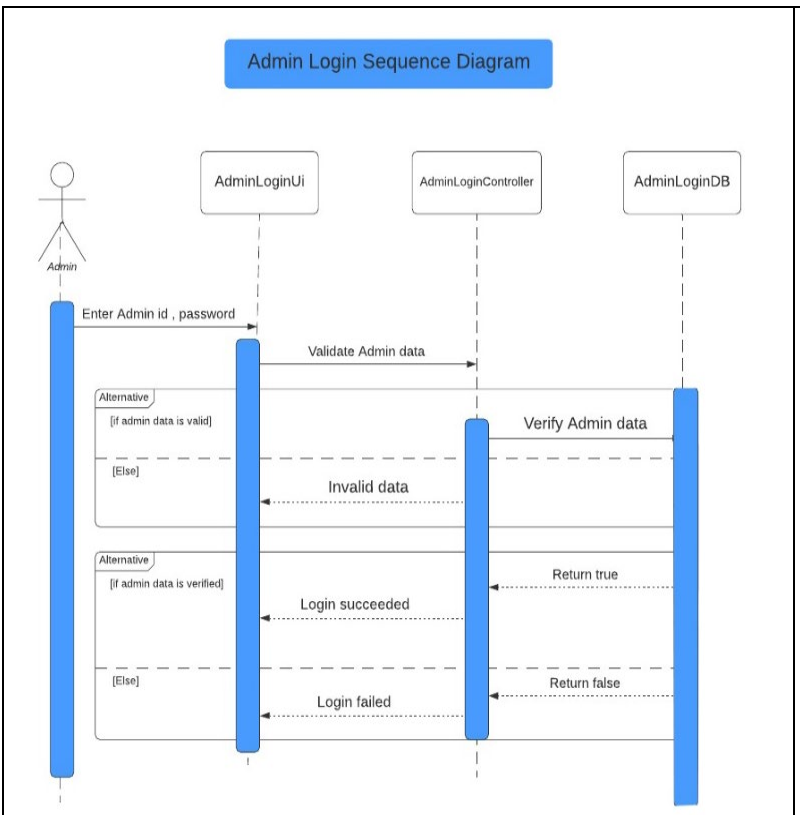


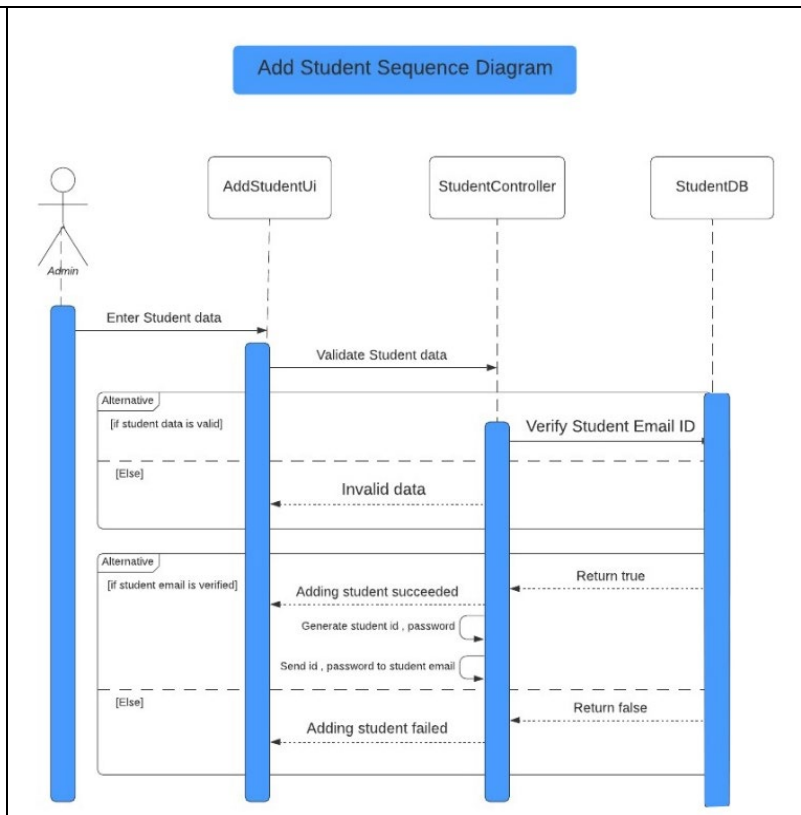
System Architecture

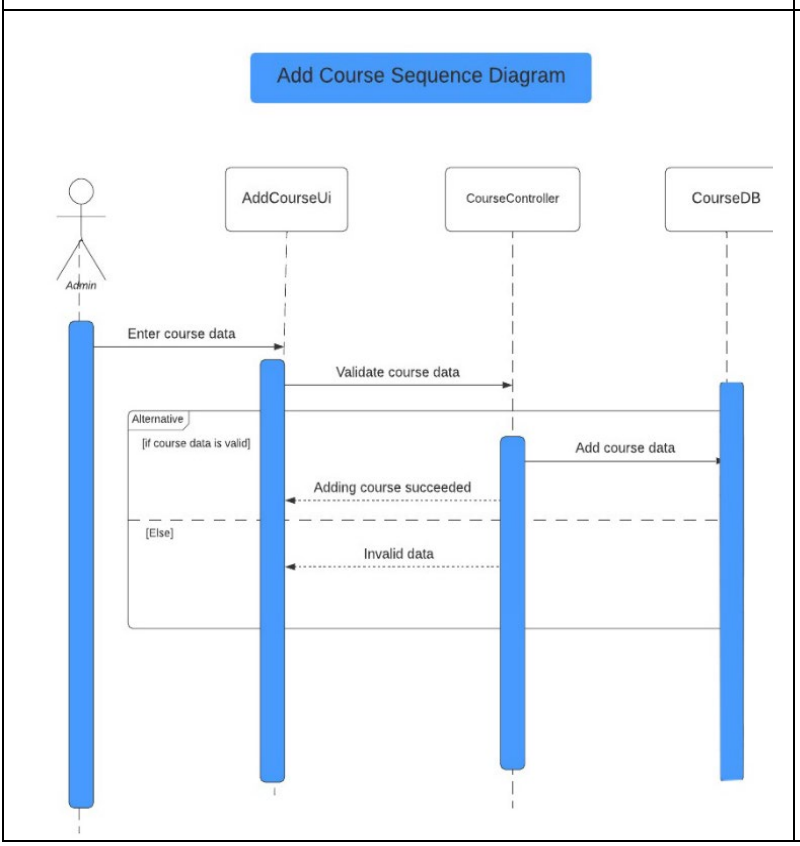
Model View Controller Architecture

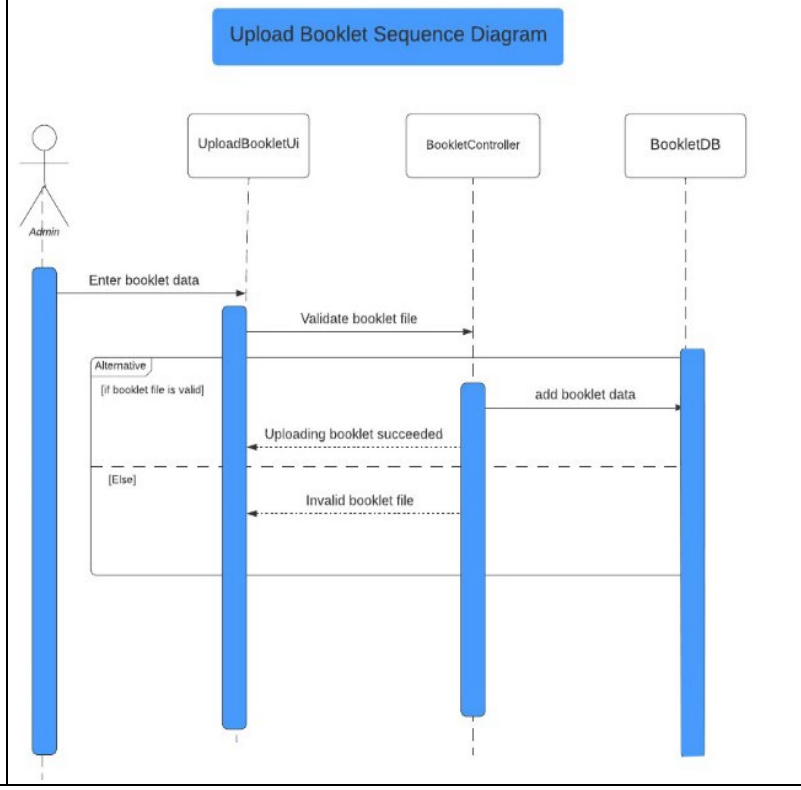


Sequence Diagrams

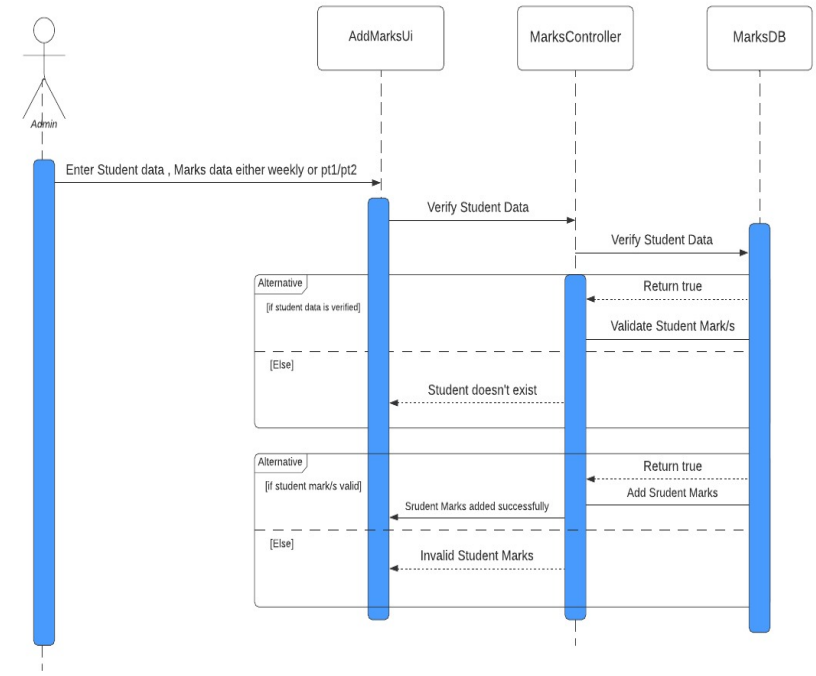




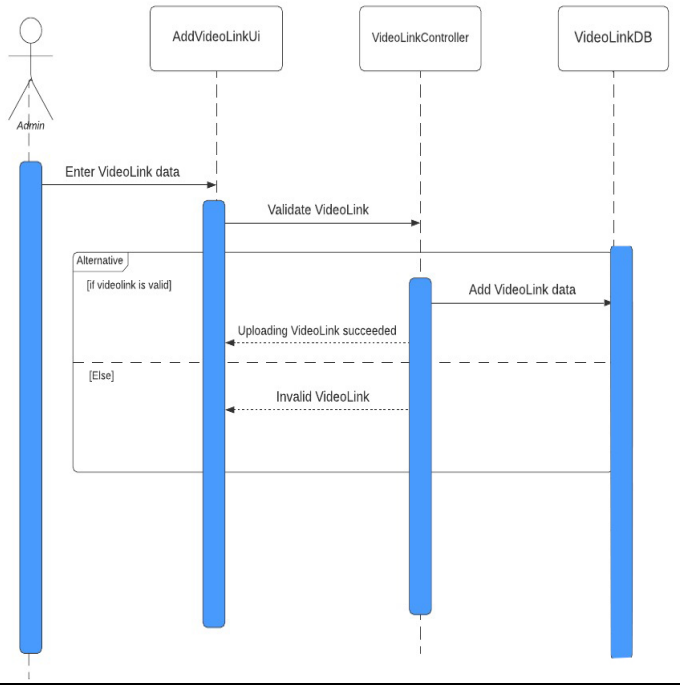




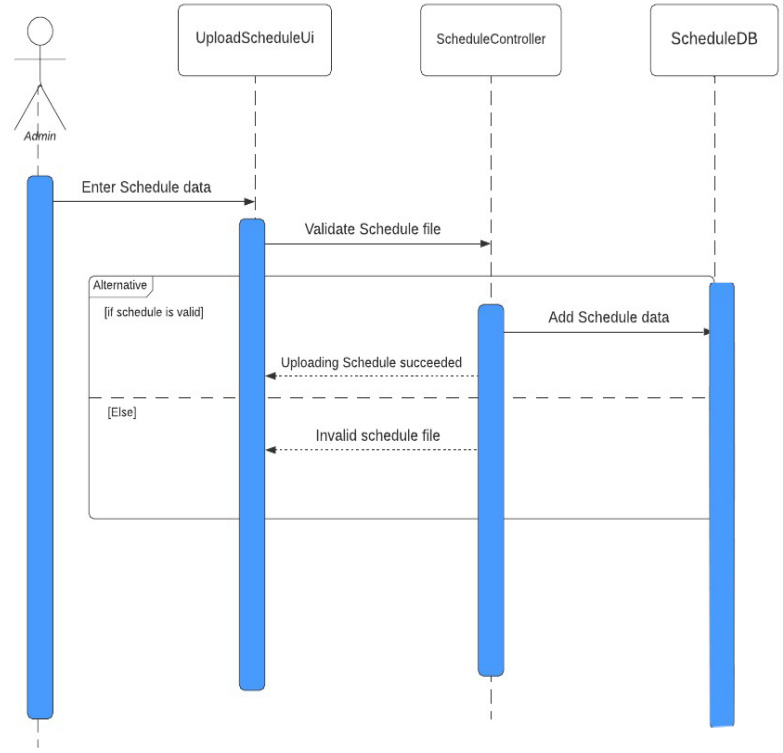
Add Marks Sequence Diagram



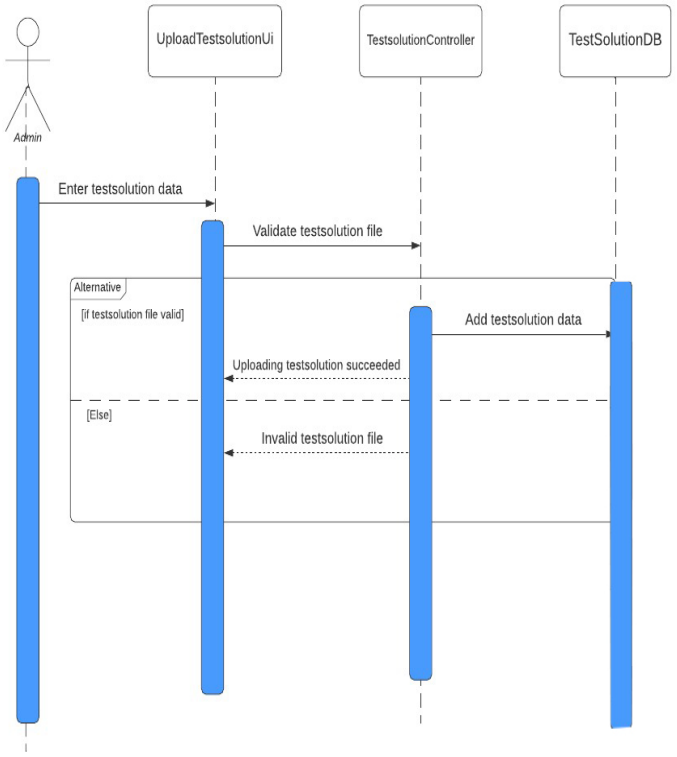
Add VideoLink Sequence Diagram

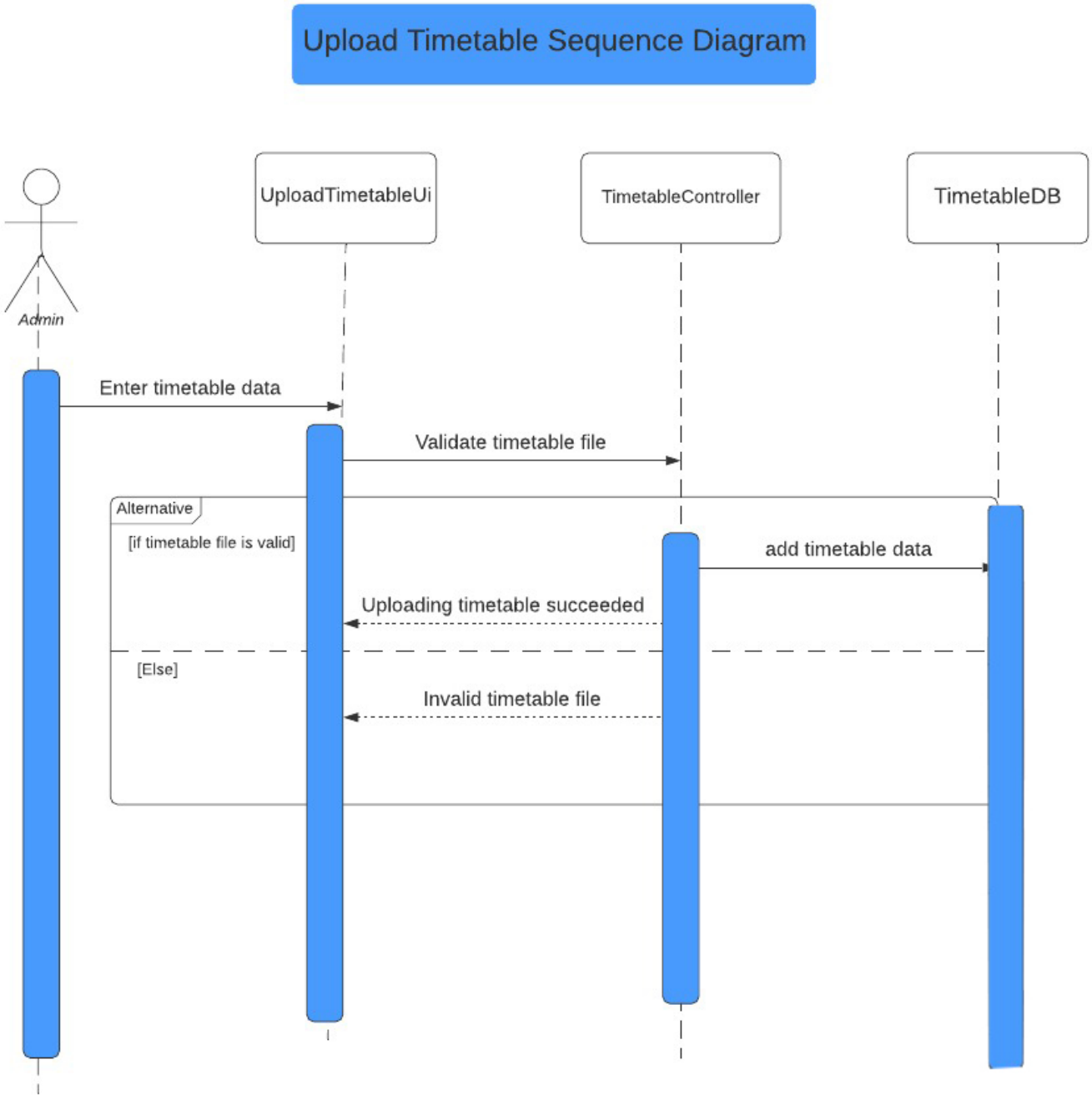


Upload Schedule Sequence Diagram

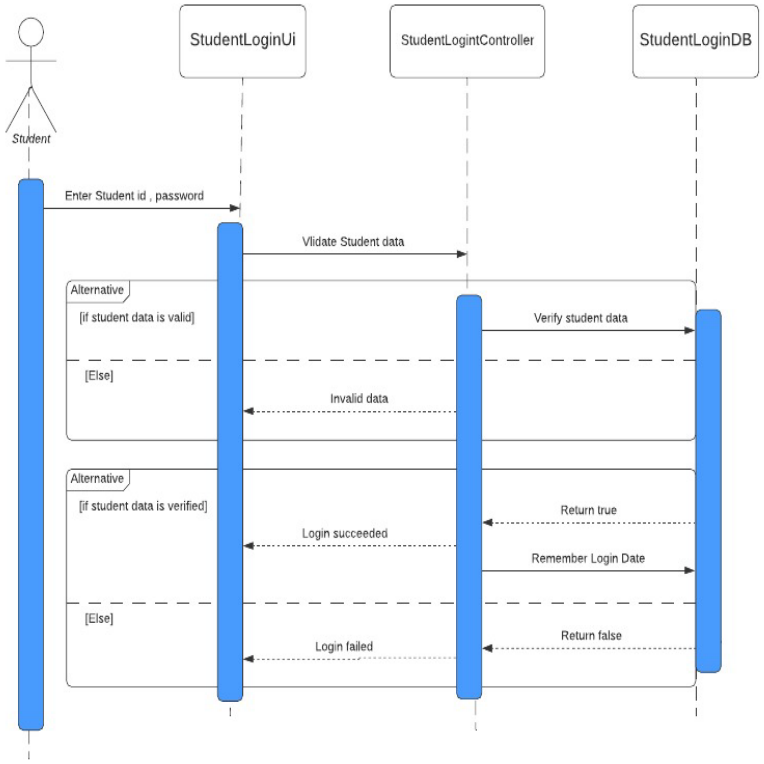


Upload Testsolution Sequence Diagram

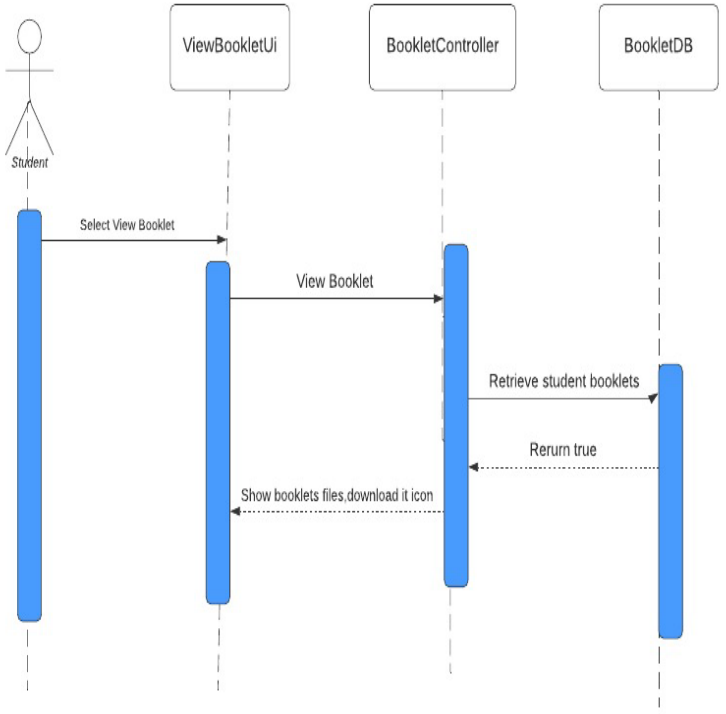



Upload Timetable Sequence Diagram
Admin
UploadTimetableUi
TimetableController
TimetableDB
Enter timetable data
Validate timetable file
Alternative
[if timetable file is valid]
add timetable data
Uploading timetable succeeded
[Else]
Invalid timetable file

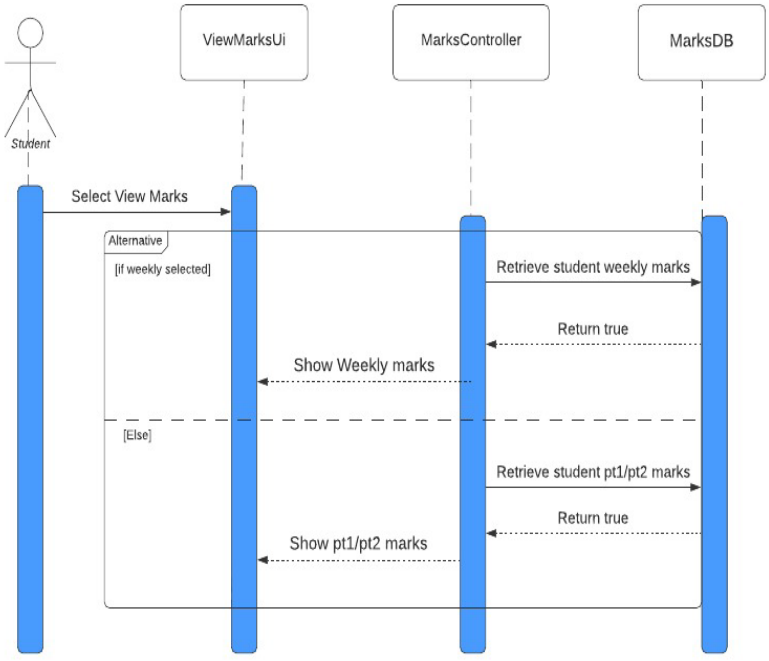
Student Login Sequence Diagram



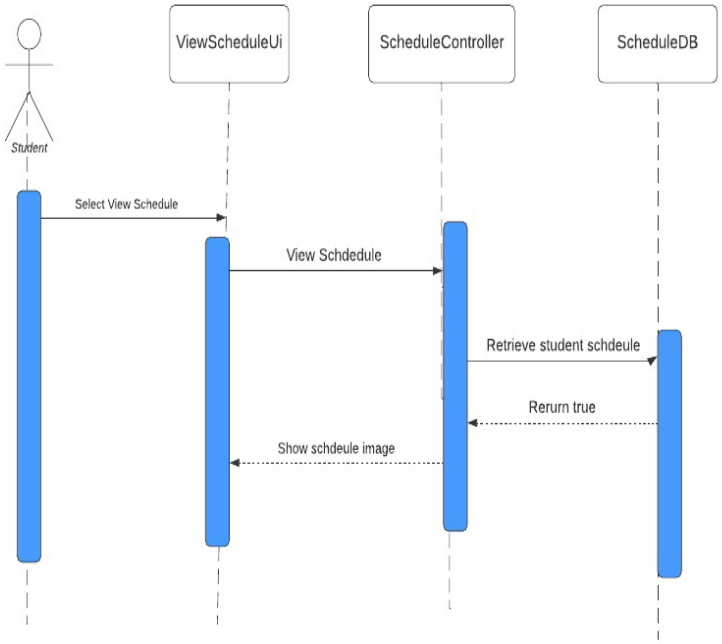
View Booklet Sequence Diagram



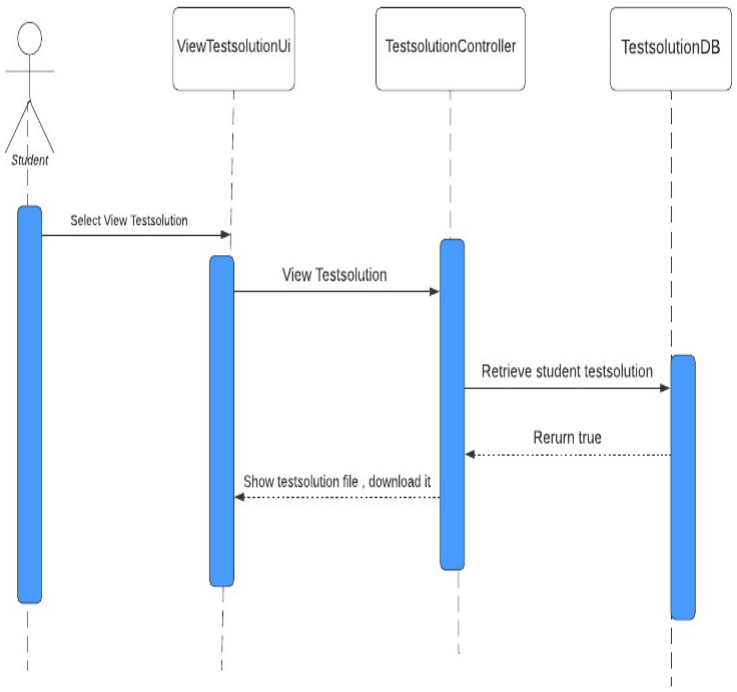
View Marks Sequence Diagram



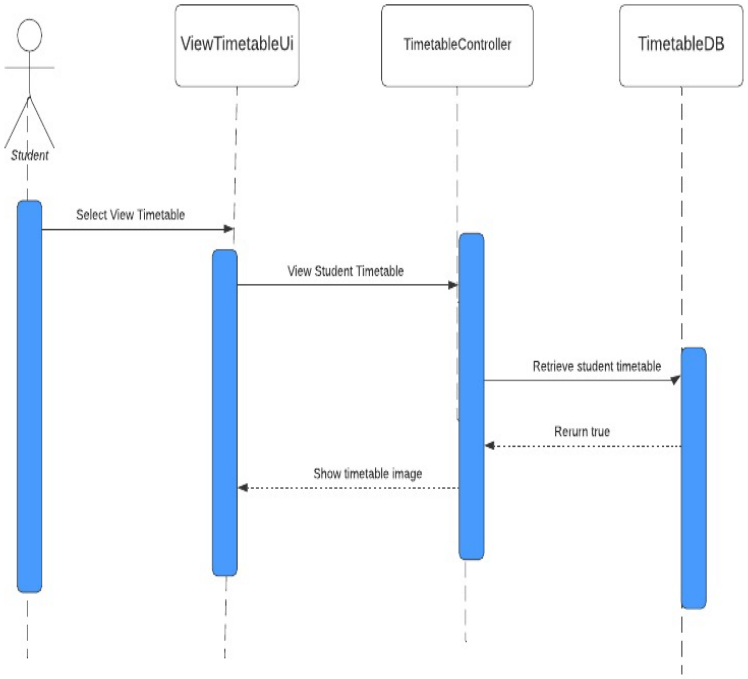
View Schdeule Sequence Diagram



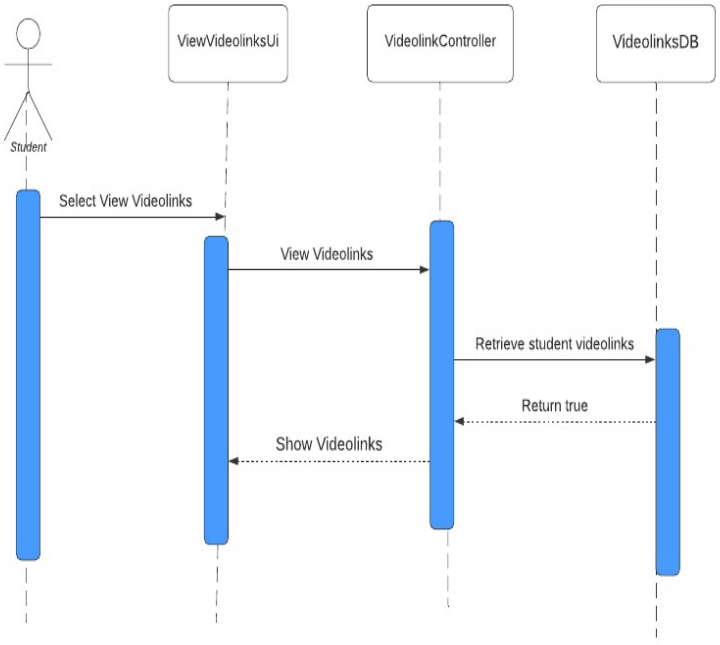
View Testsolution Sequence Diagram



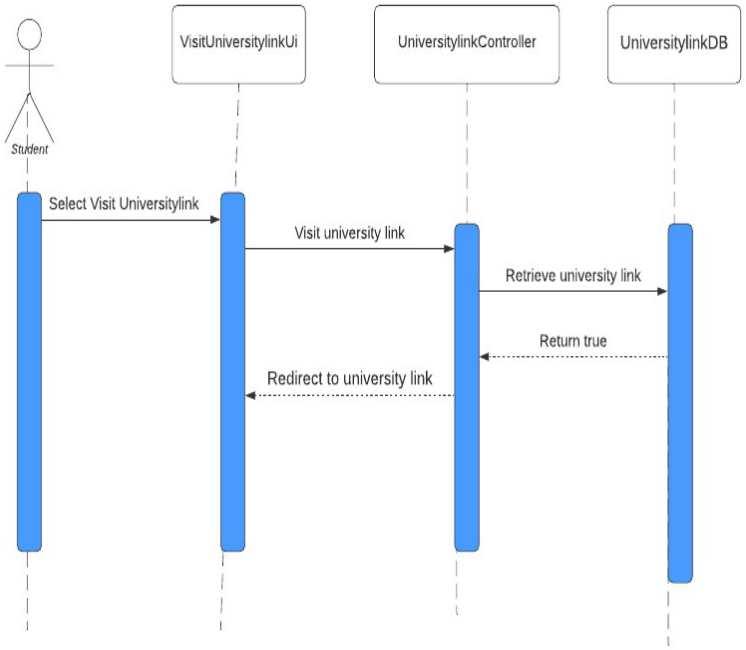
View Timetable Sequence Diagram

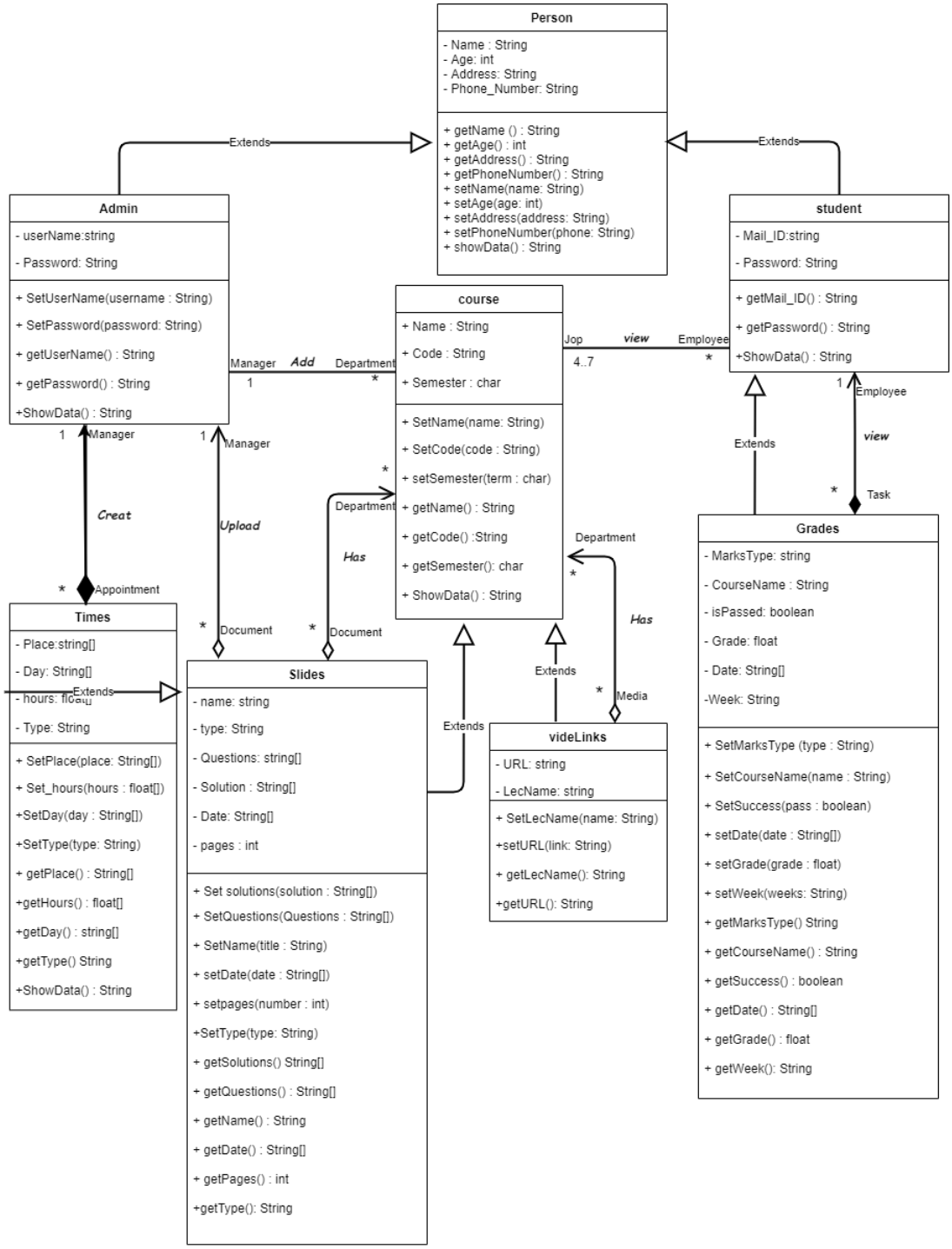


View Videolinks Sequence Diagram



Visit University link Sequence Diagram




Person
- Name : String
- Age: int
- Address: String
- Phone_Number: String
+ getName () : String
+ getAge() : int
+ getAddress() : String
+ getPhoneNumber() : String
+ setName(name: String)
+ setAge(age: int)
+ setAddress(address: String)
+ setPhoneNumber(phone: String)
+ showData() : String
Extends
Extends
Admin
- userName:string
- Password: String
+ SetUserName(username : String)
+ SetPassword(password: String)
+ getUserName() : String
+ getPassword() : String
+ ShowData() : String
student
- Mail_ID:string
- Password: String
+ getMail_ID() : String
+ getPassword() : String
+ ShowData() : String
course
+ Name : String
+ Code : String
+ Semester : char
+ SetName(name: String)
+ SetCode(code : String)
+ setSemester(term : char)
+ getName() : String
+ getCode() :String
+ getSemester(): char
+ ShowData() : String
Manager
1
Add
Department
*
Jop
4..7
view
Employee
*
1
Employee
view
Extends
*
Task
1
Manager
Creat
*
Appointment
1
Manager
Upload
*
Department
Has
Department
*
Has
Times
- Place:string[]
- Day: String[]
- hours: float[]
- Type: String
+ SetPlace(place: String[])
+ Set_hours(hours : float[])
+SetDay(day : String[])
+SetType(type: String)
+ getPlace() : String[]
+getHours() : float[]
+getDay() : string[]
+getType() String
+ShowData() : String
Extends
*
Document
*
Document
Slides
- name: string
- type: String
- Questions: string[]
- Solution : String[]
- Date: String[]
- pages : int
+ Set solutions(solution : String[])
+ SetQuestions(Questions : String[])
+ SetName(title : String)
+ setDate(date : String[])
+ setpages(number : int)
+SetType(type: String)
+ getSolutions() String[]
+ getQuestions() : String[]
+ getName() : String
+ getDate() : String[]
+ getPages() : int
+getType(): String
Extends
Extends
*
Media
videLinks
- URL: string
- LecName: string
+ SetLecName(name: String)
+setURL(link: String)
+ getLecName(): String
+getURL(): String
Grades
- MarksType: string
- CourseName : String
- isPassed: boolean
- Grade: float
- Date: String[]
-Week: String
+ SetMarksType (type : String)
+ SetCourseName(name : String)
+ SetSuccess(pass : boolean)
+ setDate(date : String[])
+ setGrade(grade : float)
+ setWeek(weeks: String)
+ getMarksType() String
+ getCourseName() : String
+ getSuccess() : boolean
+ getDate() : String[]
+ getGrade() : float
+ getWeek(): String