Software Construction & Development

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Submitted to:
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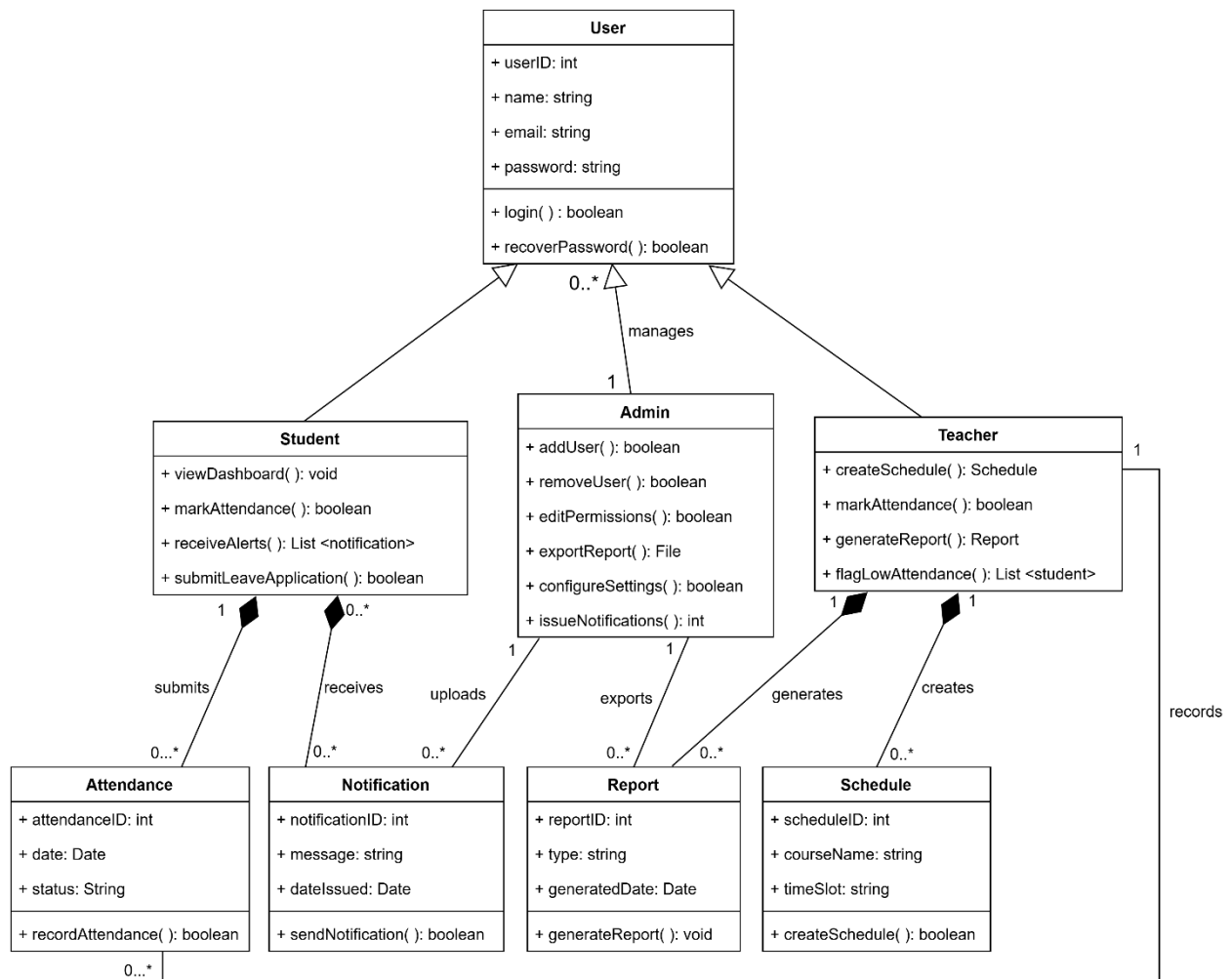
RIPHAH International University
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Faculty of Computing

Note:

This documentation contains both the class diagram for the system along with the activity diagrams for this project.

Class Diagram

User

+ userID: int

+ name: string

+ email: string

+ password: string

+ login( ) : boolean

+ recoverPassword( ): boolean

0..*

manages

1

Admin

+ addUser( ): boolean

+ removeUser( ): boolean

+ editPermissions( ): boolean

+ exportReport( ): File

+ configureSettings( ): boolean

+ issueNotifications( ): int

Student

+ viewDashboard( ): void

+ markAttendance( ): boolean

+ receiveAlerts( ): List <notification>

+ submitLeaveApplication( ): boolean

1   0..*

submits   receives   uploads

0...*   0..*   0..*

Teacher   1

+ createSchedule( ): Schedule

+ markAttendance( ): boolean

+ generateReport( ): Report

+ flagLowAttendance( ): List <student>

1   1

1   1

exports   generates   creates

0..*   0..*   0..*

records

Attendance

+ attendanceID: int

+ date: Date

+ status: String

+ recordAttendance( ): boolean

0...*

Notification

+ notificationID: int

+ message: string

+ dateIssued: Date

+ sendNotification( ): boolean

Report

+ reportID: int

+ type: string

+ generatedDate: Date

+ generateReport( ): void

Schedule

+ scheduleID: int

+ courseName: string

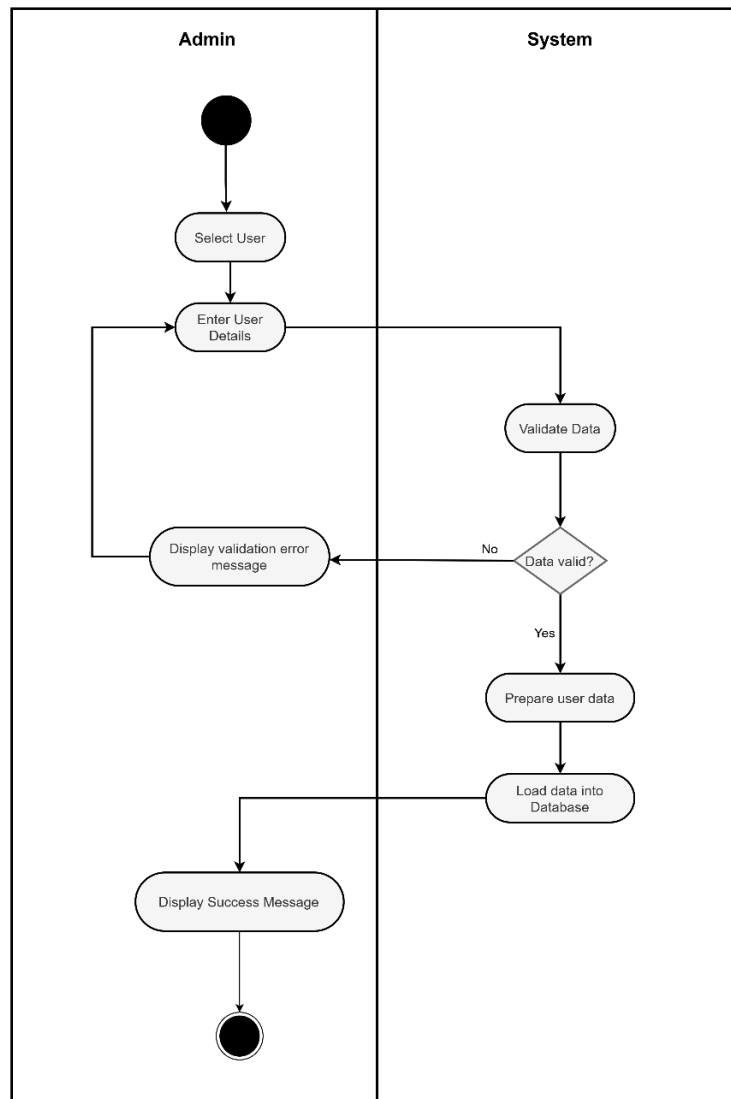+ timeSlot: string

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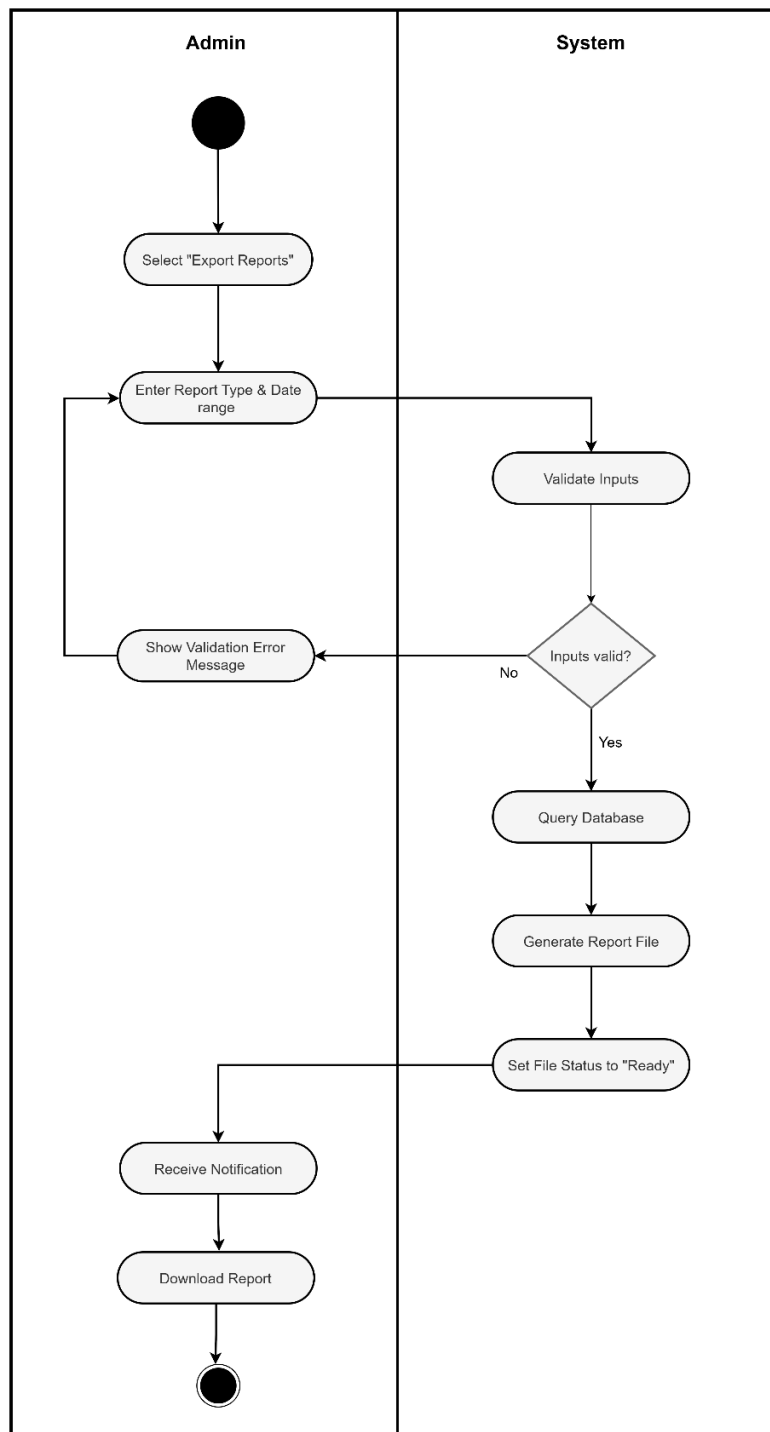+ createSchedule( ): boolean

Activity Diagram

We have made the activity diagrams for the following functions in this documentation:

- Add user
- Export report
- Create Schedule
- Modify Permissions
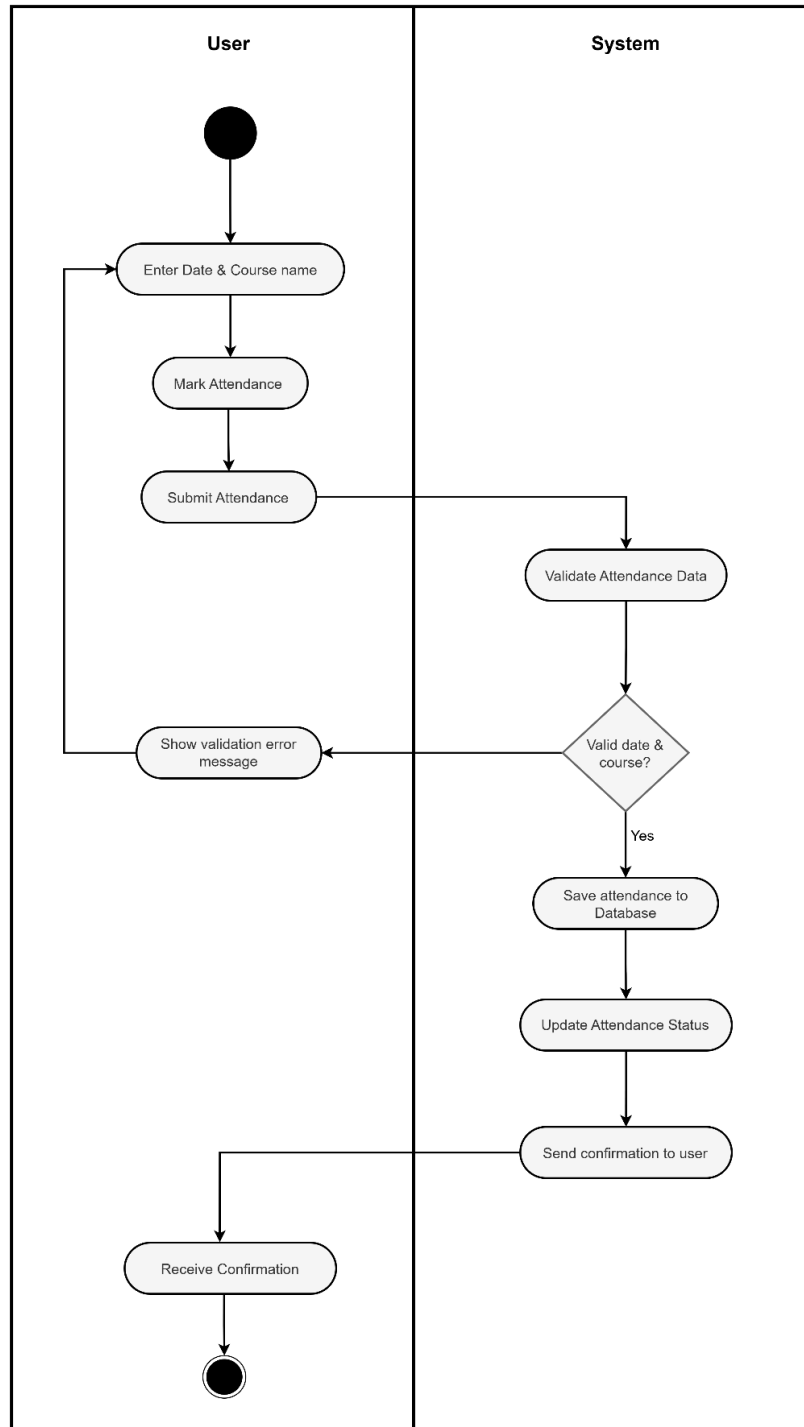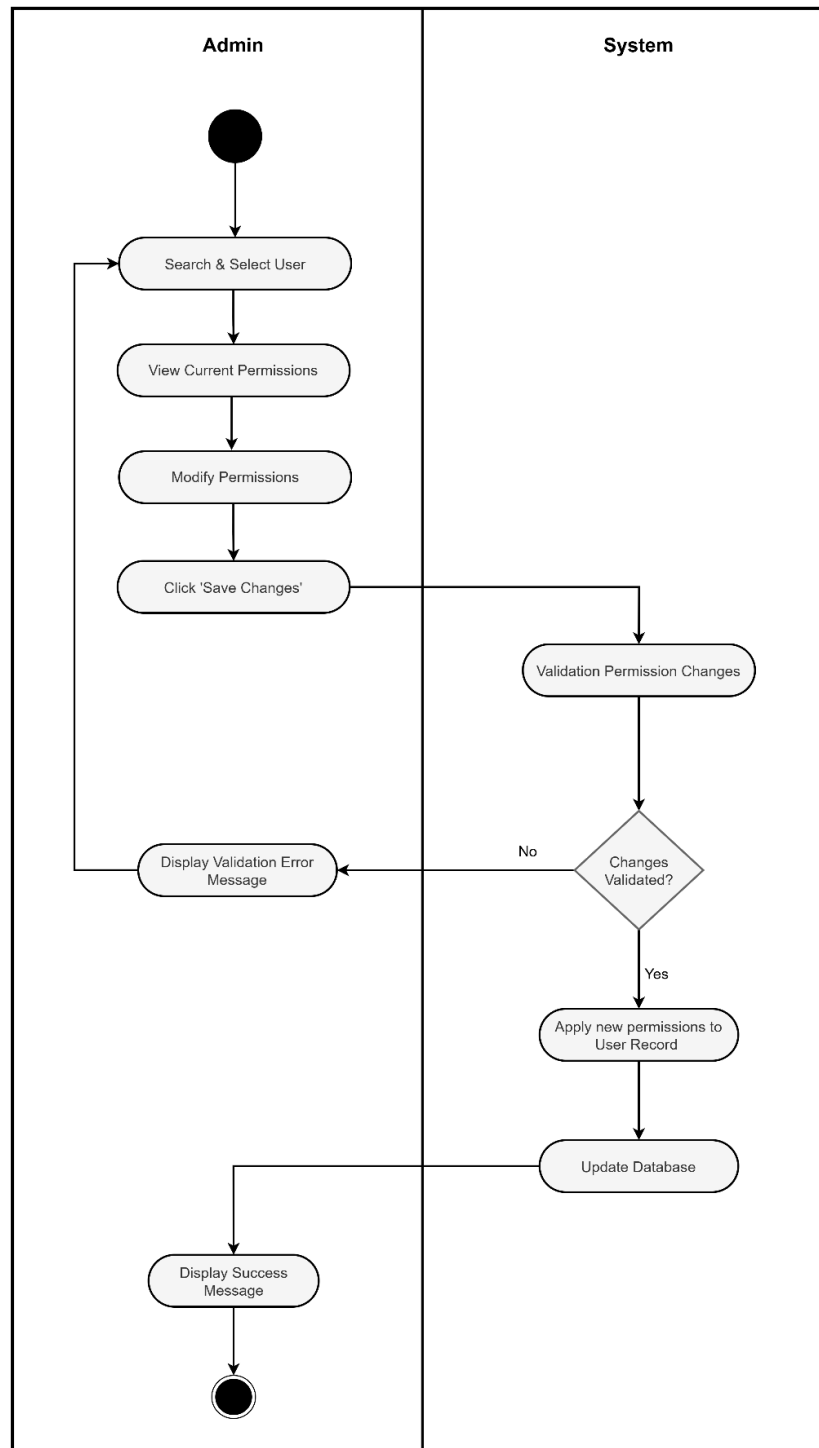- Mark Attendance
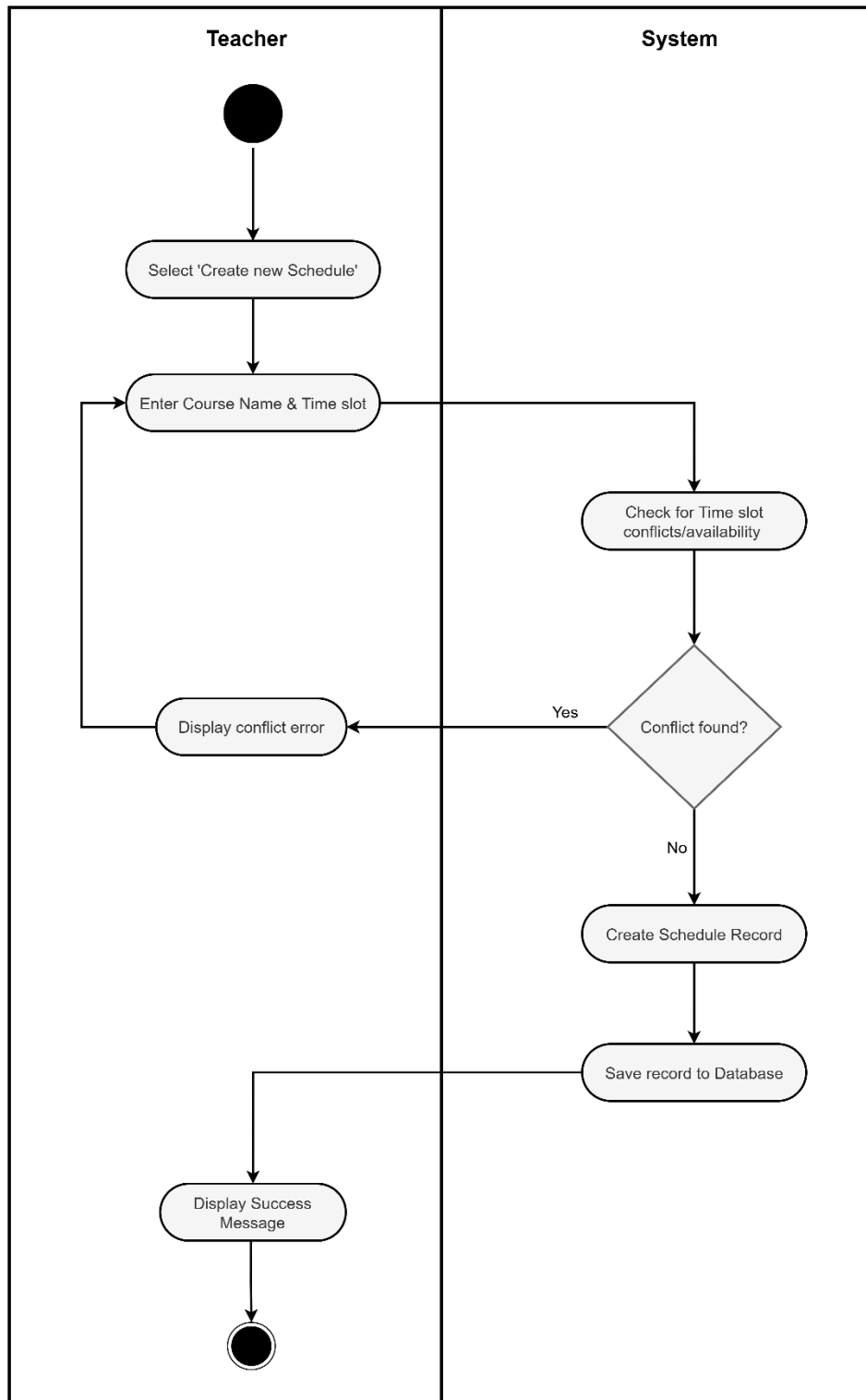- Remove user

Add User

Export report

Mark Attendance

User	System
●	
Enter Date & Course name	
Mark Attendance	
Submit Attendance	Validate Attendance Data
Show validation error message	Valid date & course?
	Yes
	Save attendance to Database
	Update Attendance Status
Receive Confirmation	Send confirmation to user
◉	

Modify Permissions

Create Schedule

Teacher	System

Teacher

- Select 'Create new Schedule'
- Enter Course Name & Time slot
- Display conflict error
- Display Success Message

System

- Check for Time slot conflicts/availability
- Conflict found?
  - Yes
  - No
- Create Schedule Record
- Save record to Database

Remove User