**SWEN – 5232 SOFTWARE CONSTRUCTION**

**Attendance using smart card**

**Submitted by**

**Sri Himaja Korrapati**

**1810548**

**Gayatri Devi Jetti**

**1828070**

**Suram Rikith Kumar Reddy**

**1813662**

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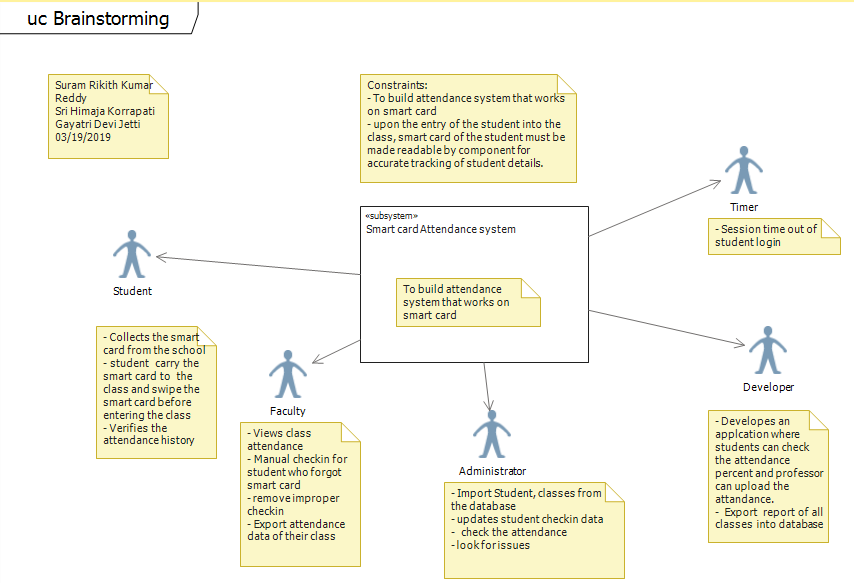
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1. **Brainstorming**

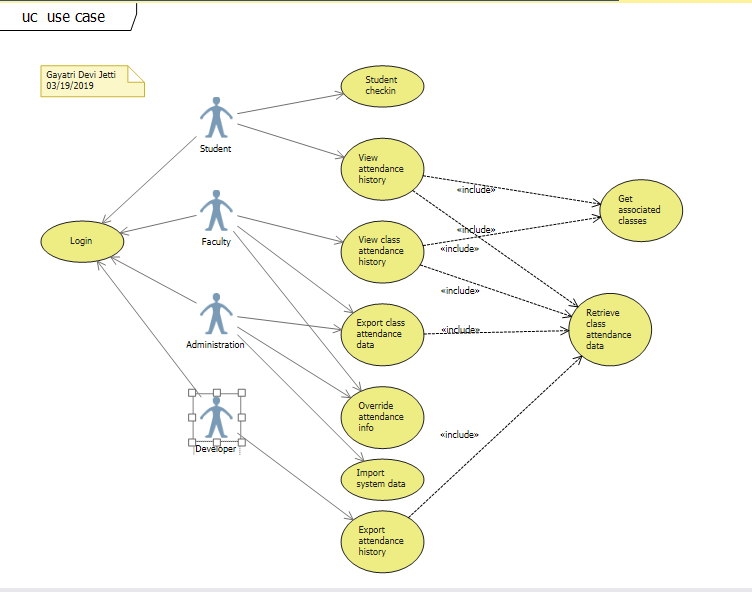


1. **Use case diagrams**

**Revision Box**

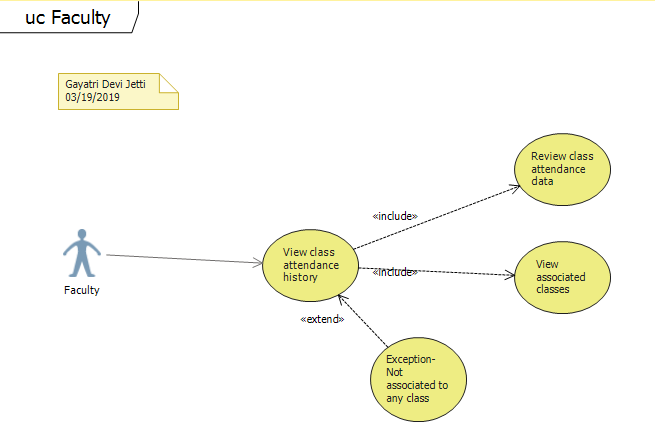
|  |  |  |  |
| --- | --- | --- | --- |
| Name | Date | Reason for Changes | Version |
| Gayatri Devi Jetti | 3/19/2019 | Initialize | 1.0 |
| Sri Himaja Korrapati | 3/20/2019 | Update | 1.1 |
| Suram Rikith Kumar Reddy | 3/22/2019 | Finalize | 1.1 |

Use Case scenario 2.1



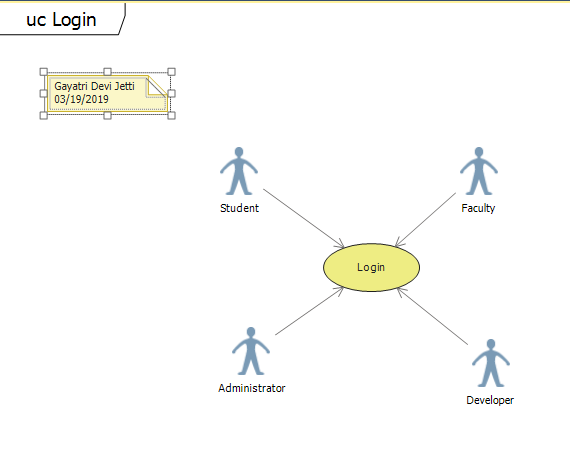
|  |  |
| --- | --- |
| Name: | View of smart card |
| Created By: | Gayatri Devi Jetti  Sri Himaja Korrapati  Suram Rikith Kumar Reddy |
| Date Created: | 03/19/2019 |
| Updated By: | Suram Rikith Kumar Reddy  Sri Himaja Korrapati |
| Date Last Updated: | 03/22/2019 |
| System/Subsystem: | Login |
| Brief Description: | Login and can check the data |
| Basic Flow: | * Login as student * Student need to login to check the attendance percentage. * Student can view attendance history in the associated class. * Student can retrieve the attendance data. * Login as faculty * Faculty can view class attendance history. * Faculty can export the attendance the data. * Login as Admin * Admin exports class attendance data. * Imports system data. * Login as Developer * Exports the attendance history * Retrieve the class attendance data |
| Alternative Flow: | None |
| Special Requirements: | Student, faculty, admin need to login |
| Pre-Conditions: | Developer and admin need to import the data |
| Post Conditions: | All can view the page after login |
| Extension Points: | None |

Use case scenario 2.2



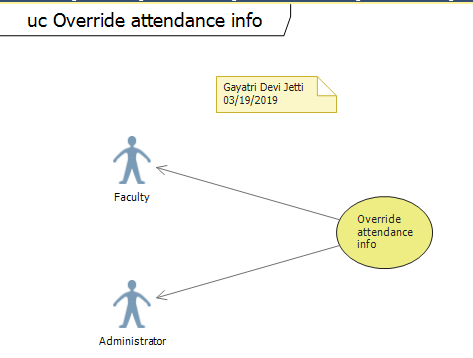
|  |  |
| --- | --- |
| Name: | Faculty view of class |
| Created By: | Gayatri Devi Jetti  Sri Himaja Korrapati  Suram Rikith Kumar Reddy |
| Date Created: | 03/19/2019 |
| Updated By: | Suram Rikith Kumar Reddy  Sri Himaja Korrapati |
| Date Last Updated: | 03/22/2019 |
| System/Subsystem: | Faculty |
| Brief Description: | Faculty can upload and view the attendance |
| Basic Flow: | * Faculty need to upload the attendance * Faculty can view the class attendance history. * After looking on to the class attendance history, faculty can review the class attendance data. |
| Alternative Flow: | None |
| Special Requirements: | Faculty need to login and upload the attendance. |
| Pre-Conditions: | Faculty need to login. |
| Post Conditions: | All can view the data. |
| Extension Points: | None |

Use case scenario 2.3



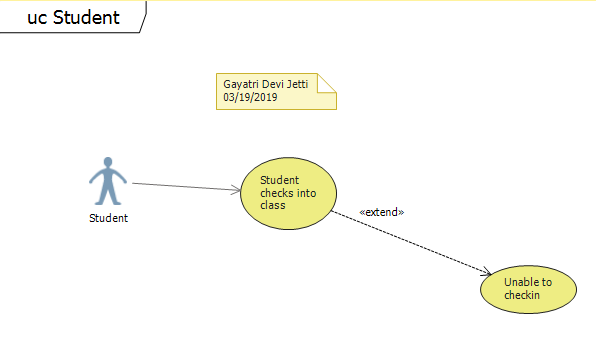
|  |  |
| --- | --- |
| Name: | Different kinds of user login |
| Created By: | Gayatri Devi Jetti  Sri Himaja Korrapati  Suram Rikith Kumar Reddy |
| Date Created: | 03/19/2019 |
| Updated By: | Suram Rikith Kumar Reddy  Sri Himaja Korrapati |
| Date Last Updated: | 03/22/2019 |
| System/Subsystem: | Login |
| Brief Description: | All can login and modify the data |
| Basic Flow: | * Student can login and view the attendance percentage. * Faculty can login, upload the data and view attendance history. * Admin can login and export class attendance data and imports system data. * Developer can login and retrieve the calls attendance data. |
| Alternative Flow: | None |
| Special Requirements: | None |
| Pre-Conditions: | Developer and admin need to import the data |
| Post Conditions: | All can view the page after login |
| Extension Points: | None |

Use case scenario 2.4



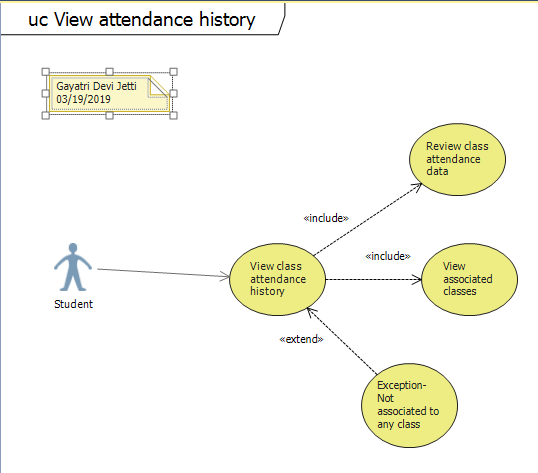
|  |  |
| --- | --- |
| Name: | Override attendance information |
| Created By: | Gayatri Devi Jetti  Sri Himaja Korrapati  Suram Rikith Kumar Reddy |
| Date Created: | 03/19/2019 |
| Updated By: | Suram Rikith Kumar Reddy  Sri Himaja Korrapati |
| Date Last Updated: | 03/22/2019 |
| System/Subsystem: | Attendance |
| Brief Description: | Overriding the attendance data |
| Basic Flow: | * Student attendance data and history might override. |
| Alternative Flow: | None |
| Special Requirements: | Developer need to take care of override. |
| Pre-Conditions: | Data need to be uploaded carefully. |
| Post Conditions: | Override doesn’t take place. |
| Extension Points: | None |

Use case scenario 2.5



|  |  |
| --- | --- |
| Name: | Usage of smart card |
| Created By: | Gayatri Devi Jetti  Sri Himaja Korrapati  Suram Rikith Kumar Reddy |
| Date Created: | 03/19/2019 |
| Updated By: | Suram Rikith Kumar Reddy  Sri Himaja Korrapati |
| Date Last Updated: | 03/22/2019 |
| System/Subsystem: | Check in |
| Brief Description: | Student check in |
| Basic Flow: | * Student checkin to the class using smart card |
| Alternative Flow: | If the student is unable to checkin contact faculty or admin |
| Special Requirements: | None |
| Pre-Conditions: | Student need to swipe the smart card |
| Post Conditions: | Student can enter into the class |
| Extension Points: | None |

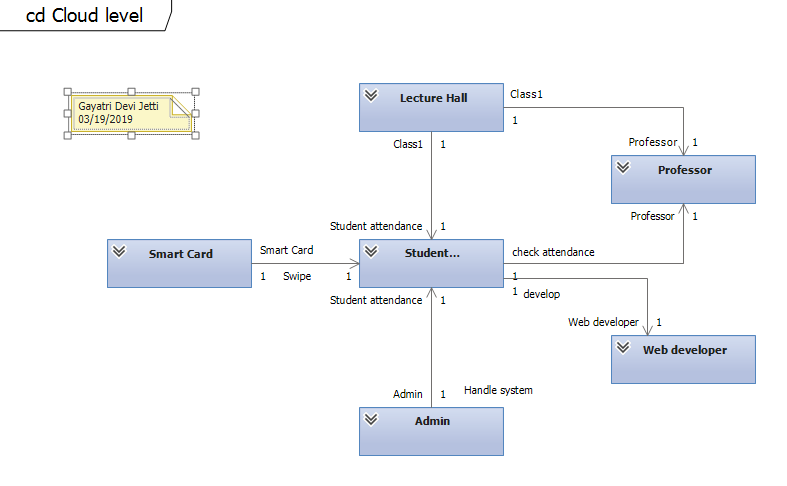
Use case scenario 2.6



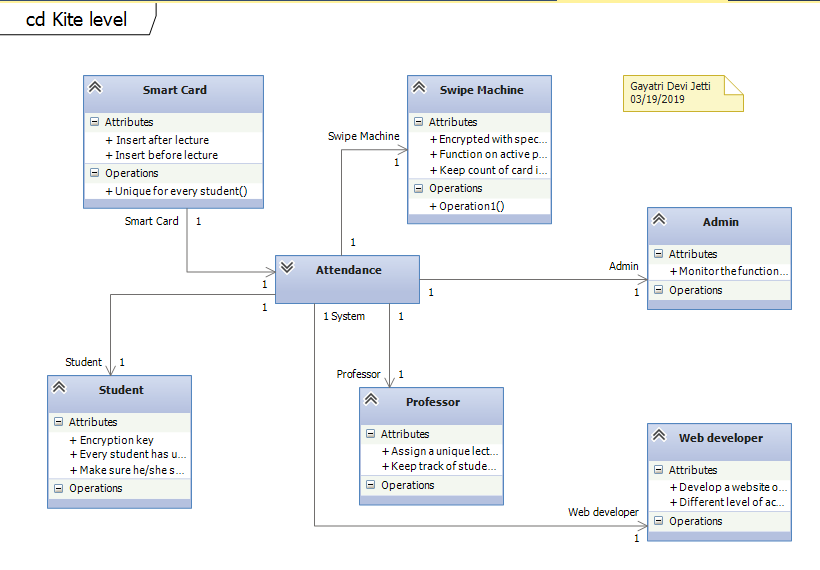
|  |  |
| --- | --- |
| Name: | View class attendance history |
| Created By: | Gayatri Devi Jetti  Sri Himaja Korrapati  Suram Rikith Kumar Reddy |
| Date Created: | 03/19/2019 |
| Updated By: | Suram Rikith Kumar Reddy  Sri Himaja Korrapati |
| Date Last Updated: | 03/22/2019 |
| System/Subsystem: | Login |
| Brief Description: | Students can check attendance data |
| Basic Flow: | * Students can check class attendance history * After checking the data, they can review the attendance data. |
| Alternative Flow: | None |
| Special Requirements: | Student need to check the data. |
| Pre-Conditions: | Student need to login to check the attendance data. |
| Post Conditions: | Student can review the class attendance history. |
| Extension Points: | None |

1. **Domain Modelling:**

3.1) Cloud level:

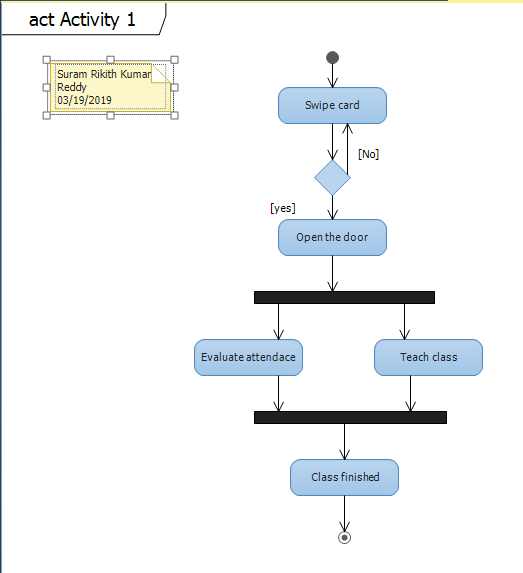


3.2) Kite Level:

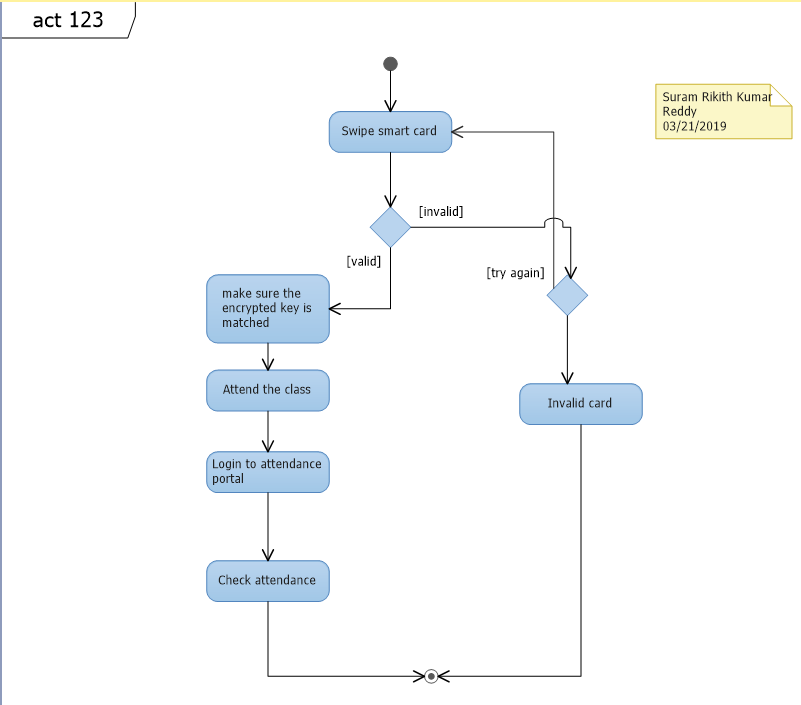


1. **Activity diagram:**

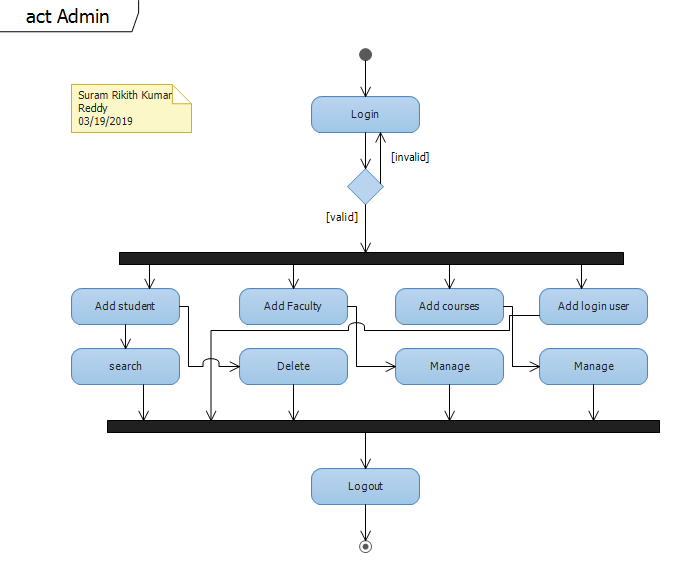
4.1)



4.2)

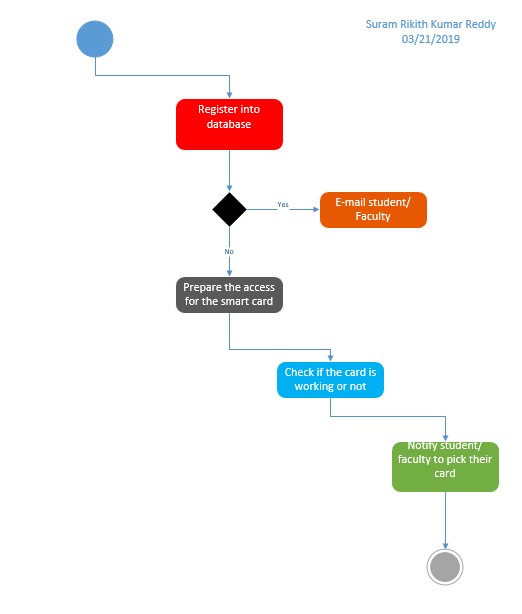


4.3)

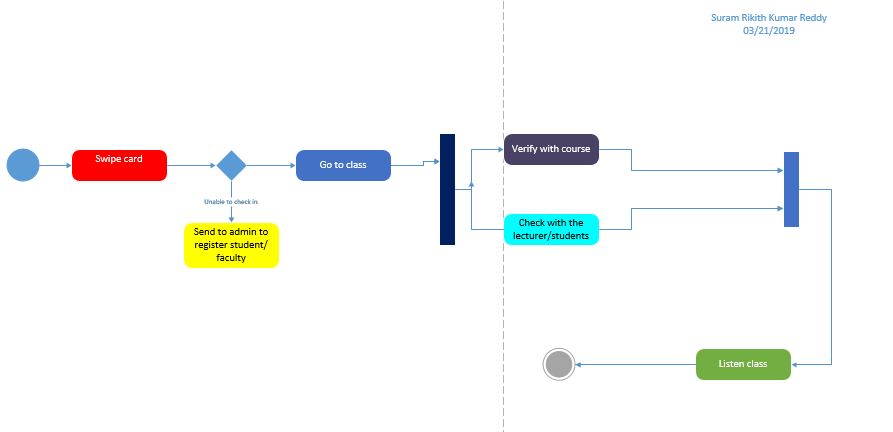


1. **State Machine Diagrams:**

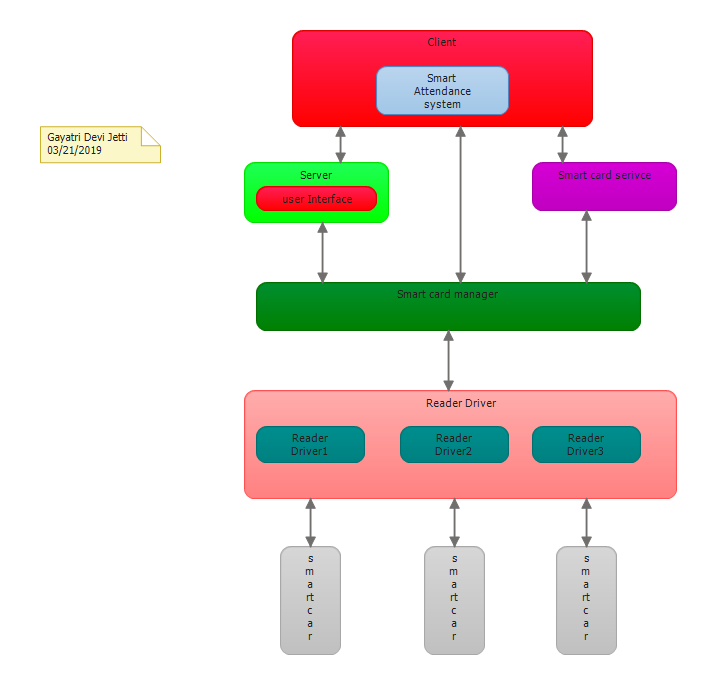
5.1)



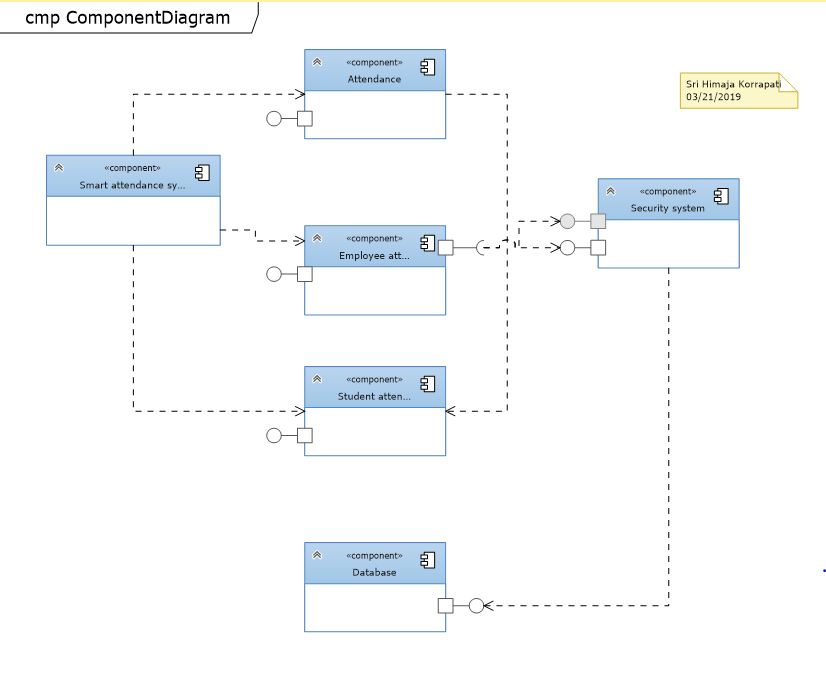
5.2)



**6)** **Layer Diagram:**

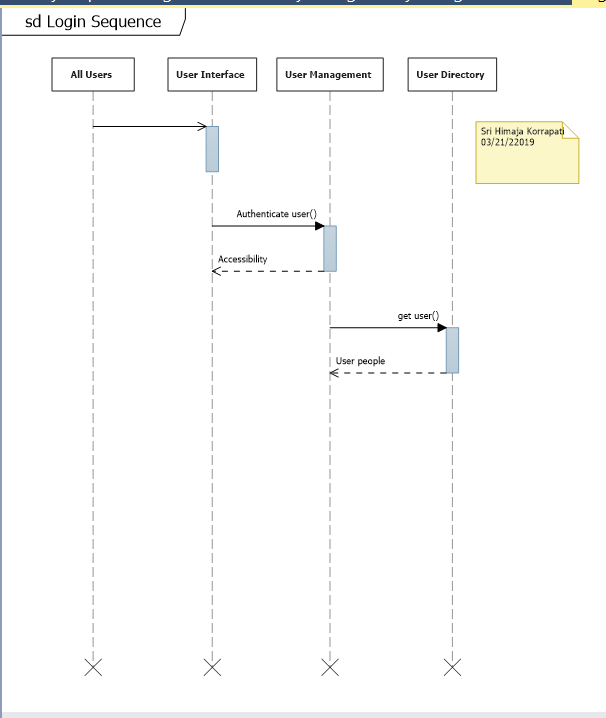


**7) Component Diagram**

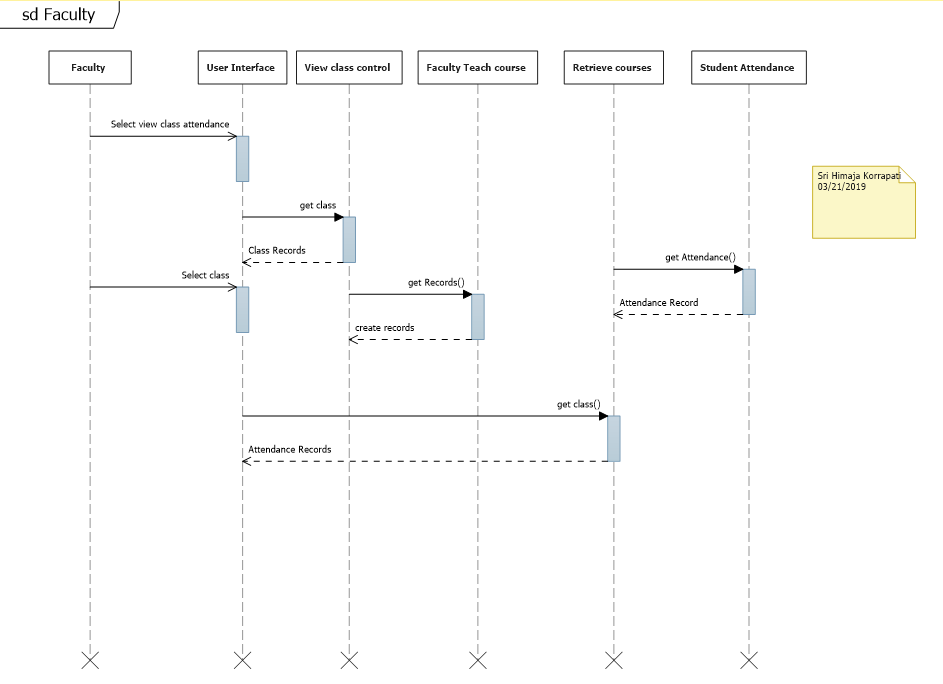


**8) Sequence Diagrams:**

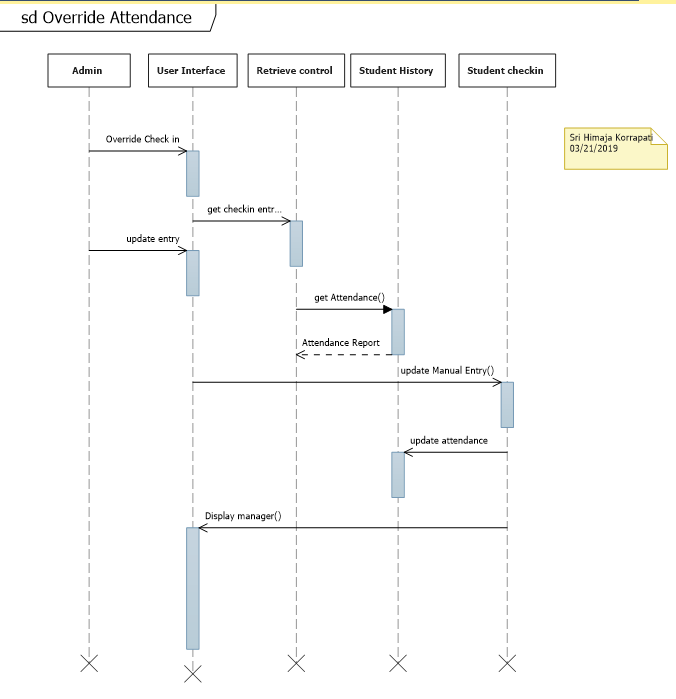
8.1)



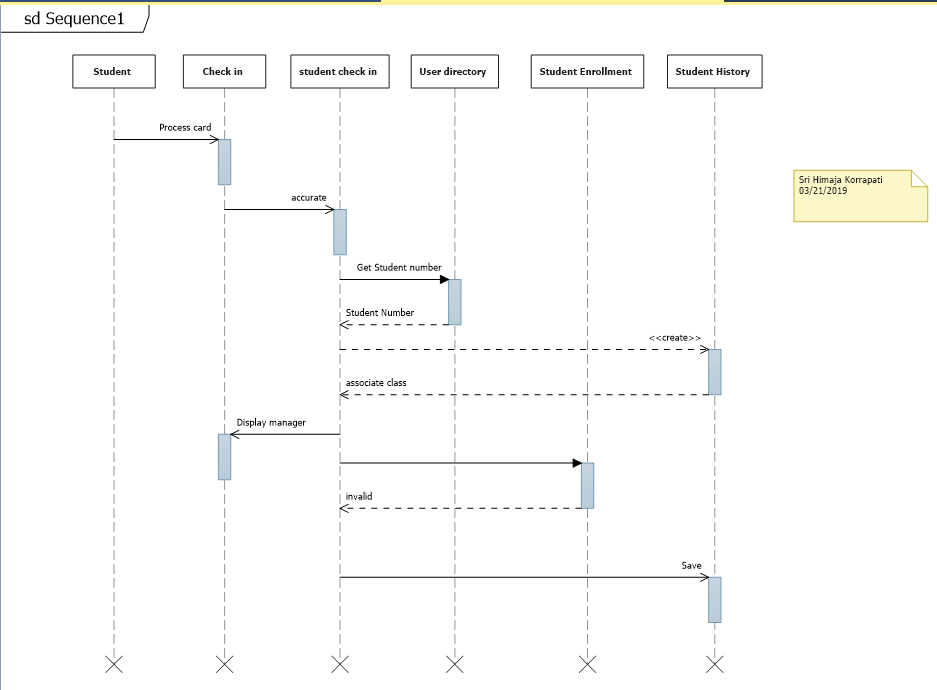
8.2)



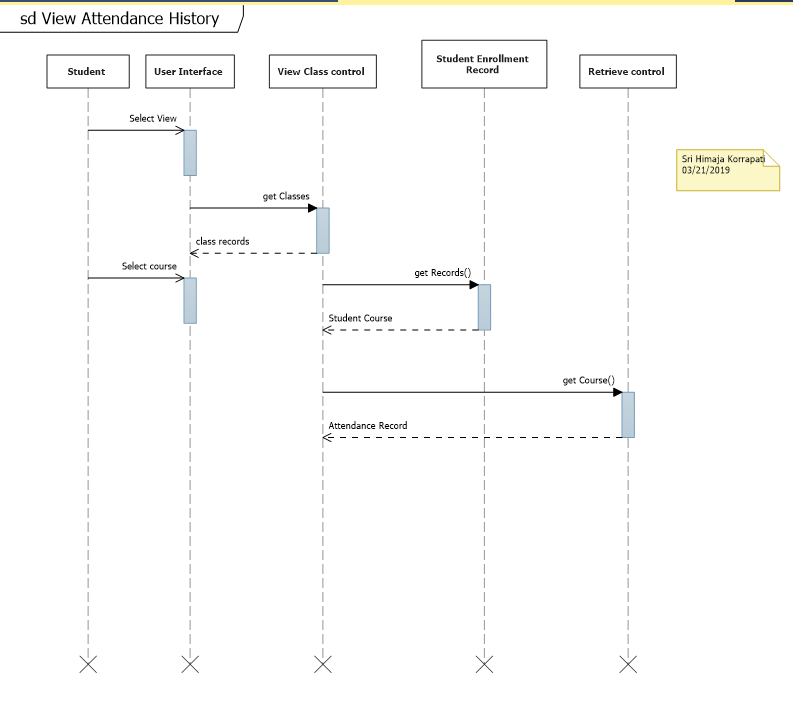
8.3)



8.4)

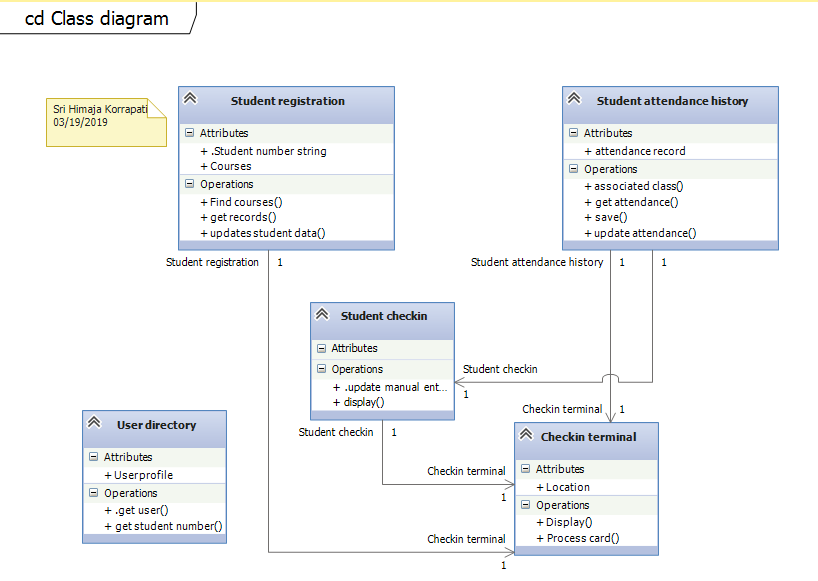


8.5)



**9) Class Diagrams:**

9.1)



9.2)

