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Tele Education

Software Design Specification

Version 1.1
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Revision History

| Date	Description	Author	Comments
8 June	Version 1.0	Tele Education Group	
14 June	Version 1.1	Tele Education Group	

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1. Introduction

Tele – Education is aimed to address various obstacles that students in present Government rural educational institutions face due to distance and/or socio-economical constraints and lack of quality education. Tele - Education overcomes these shortcomings by providing satellite based LIVE quality training with multimedia content for rural students from V to X Standard, which can reach multitudes, cost effectively. Tele Education project is currently running on 1000 schools of Karnataka state. The main objective of Tele – Education project is to bridge the gap in quality of education being provided in urban and rural areas; particularly in government schools, and elevates the learning levels of the students in Mathematics, Science and English (Grammar).
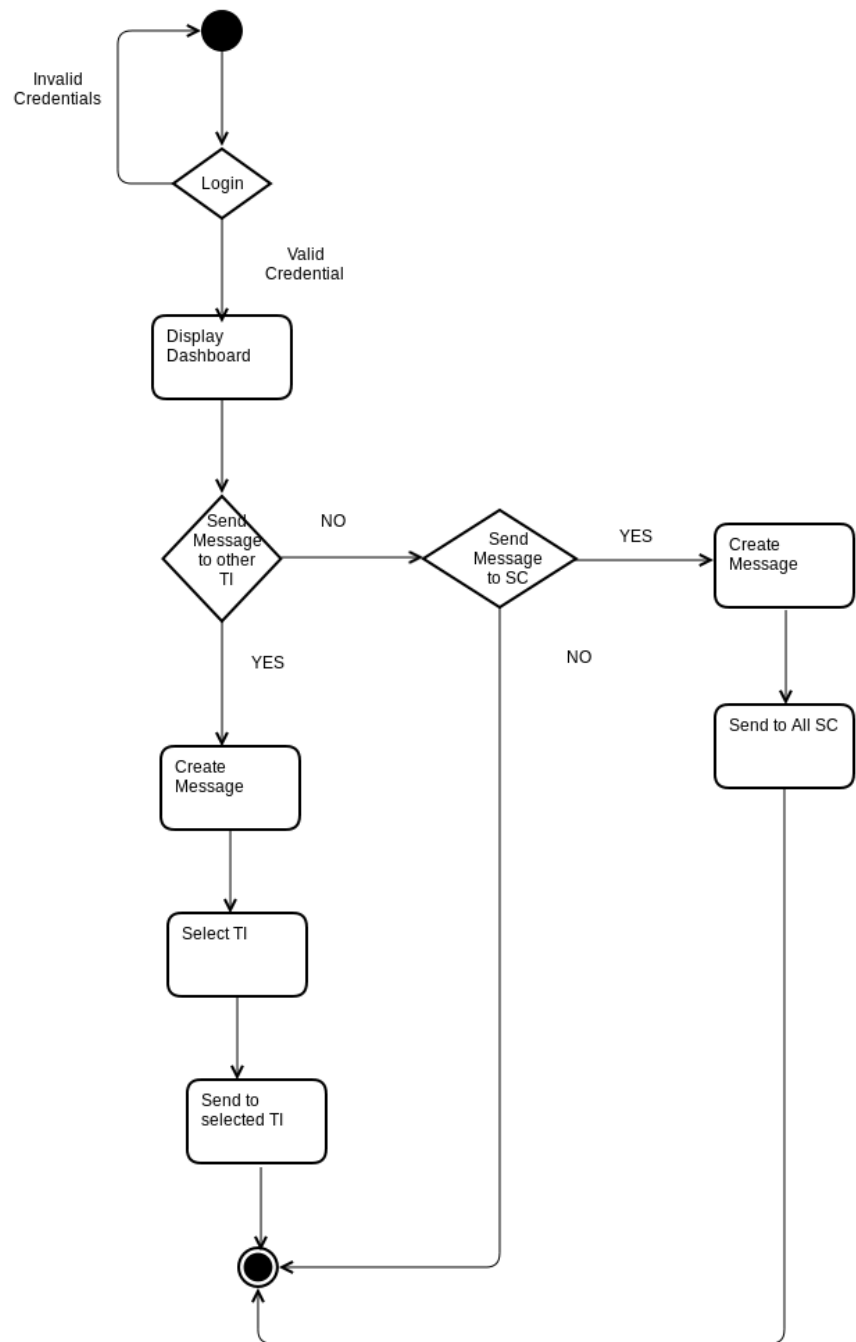
2.) Class Diagram
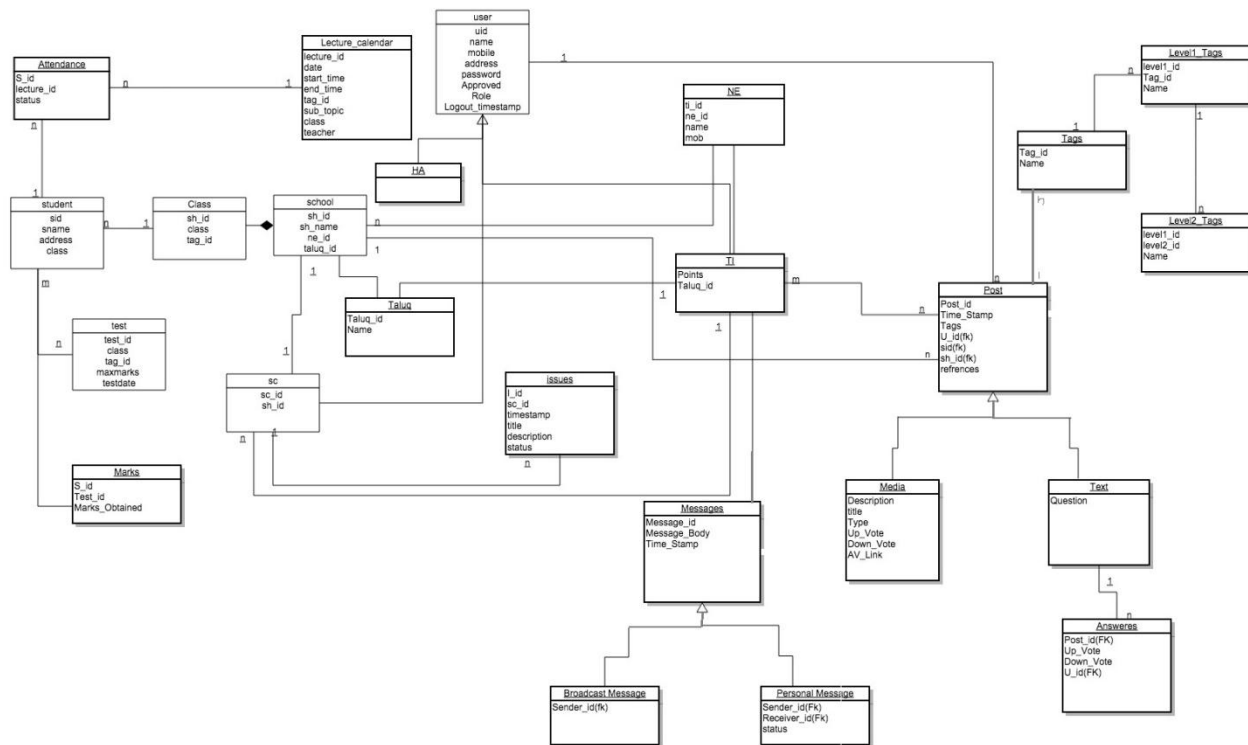
3.) Activity Diagram
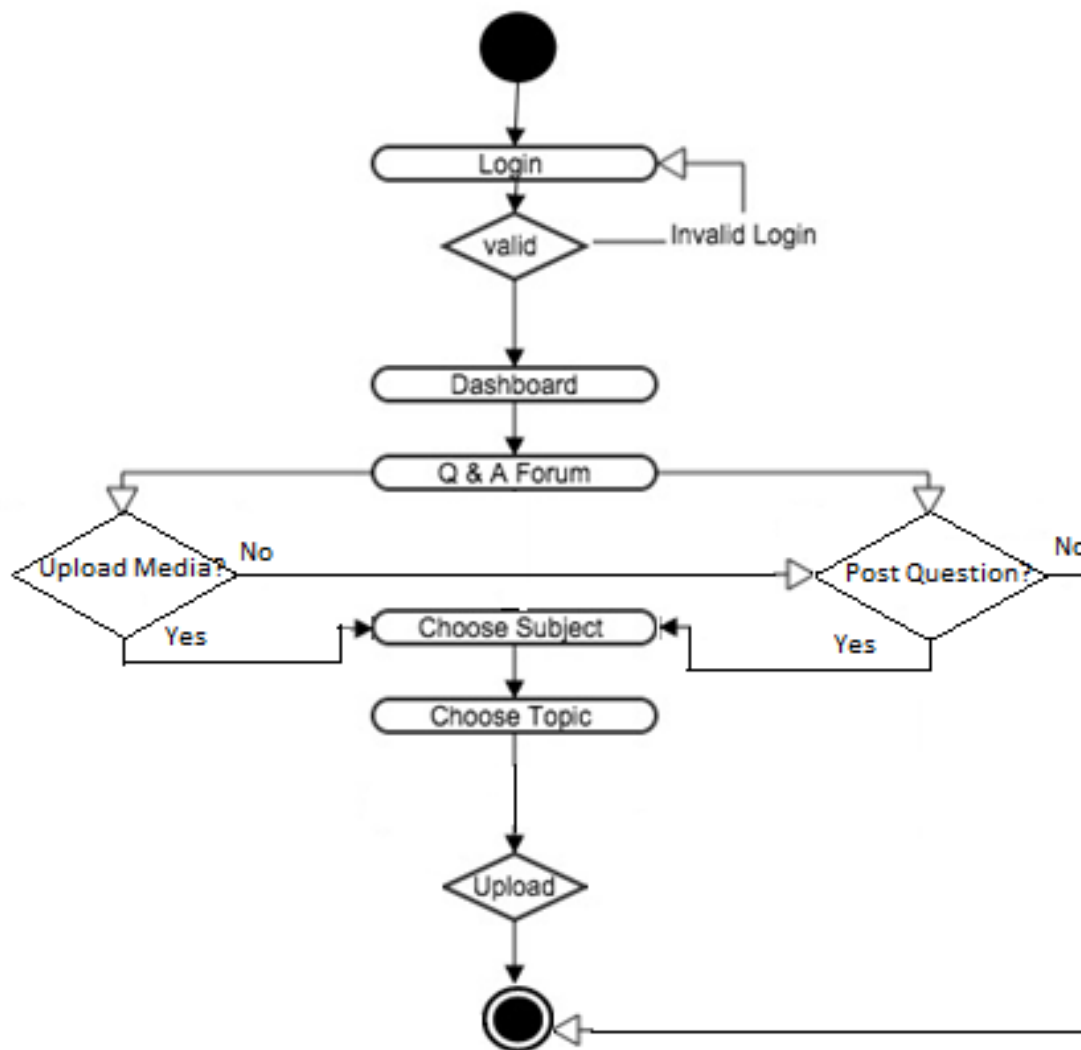
AD1. Database Issue
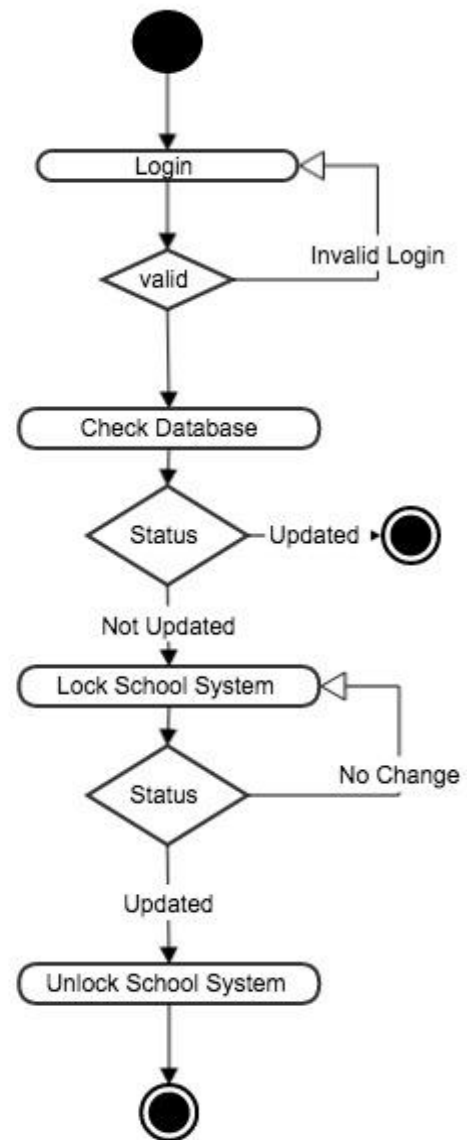
The following activity diagram shows how the TI will take action against the SC if the information is not submitted by SC.
Ref: R3.0

AD2. System Issue

The following activity diagram shows how the TI will take action if the system is not working in the school.
Ref:

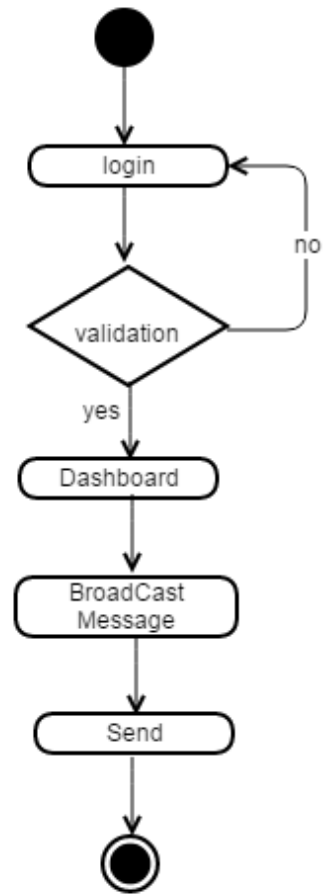### AD3. Question and Answer Upload

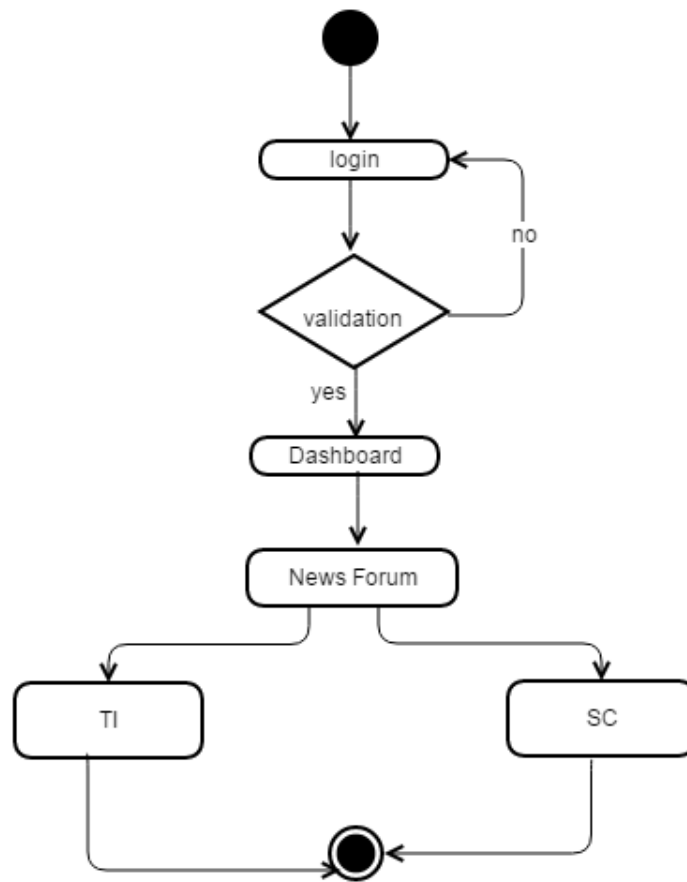The following activity diagram shows how the TI will upload the question and answer that can be seen by other TI's.
Ref:R1.0,R1.1,R1.1.1,R1.1.2,R1.2

AD4. Broadcast Message
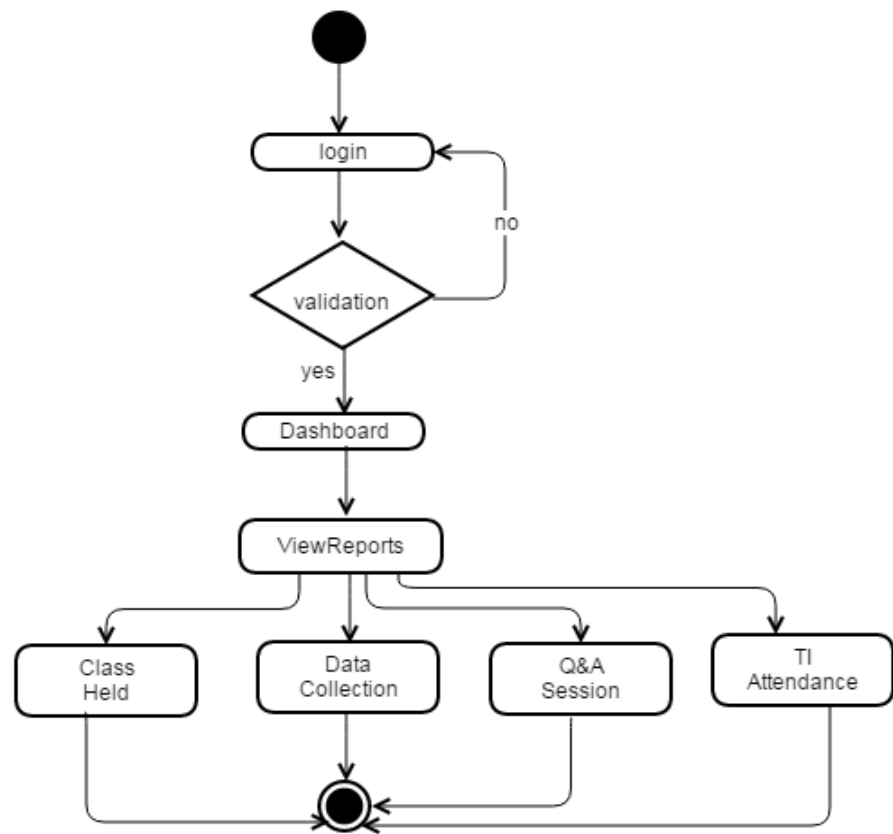

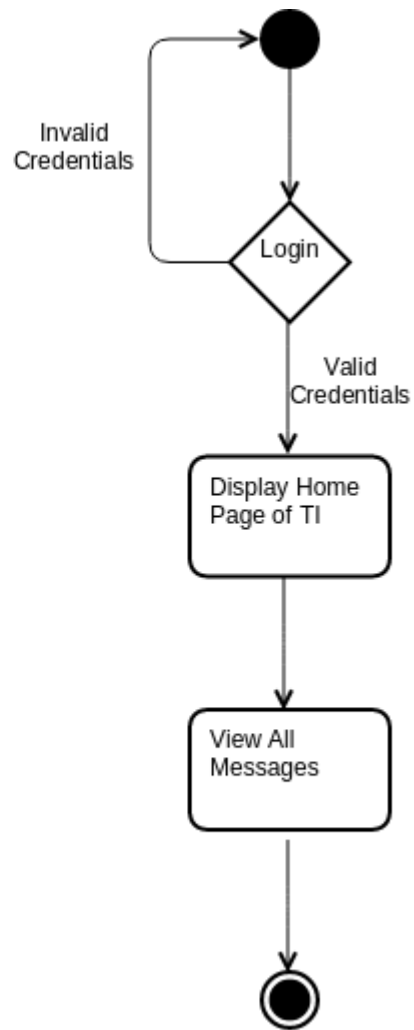The following activity diagram shows how the message will be broadcasted by TI to SC and by HA to TI.

Ref:R4.1

AD5. View News Forum

The following activity diagram shows how the TI and SC will see the message in the news forum.

AD6. View Report

The following activity diagram shows how the monthly reports will be generated which contains the report of whole month.
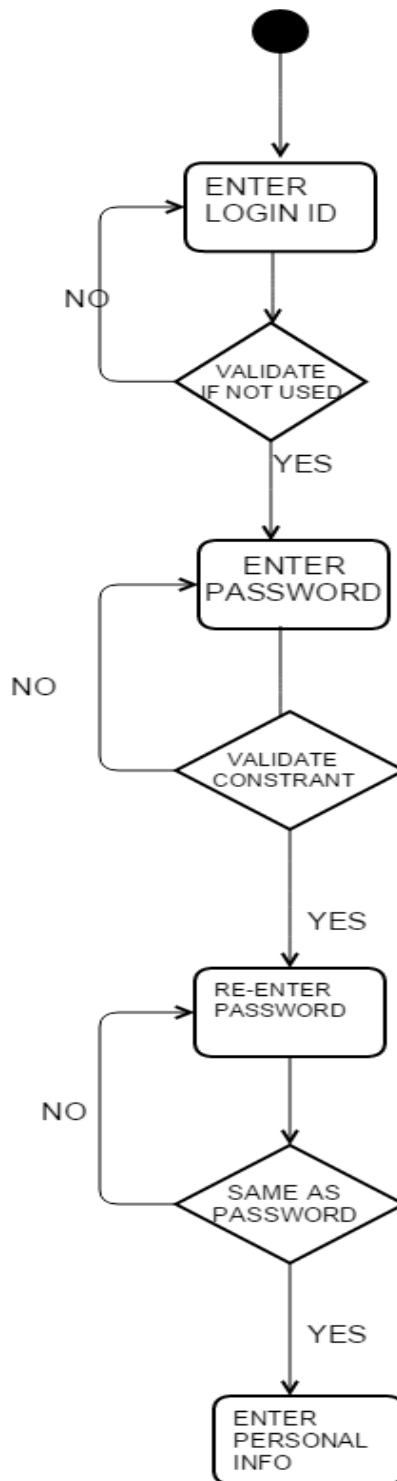Ref:R5.0

AD7. View Messages

The following activity diagram shows how the TI will view the messages after logging into the system.
Ref:R1.4

AD8. Send Message
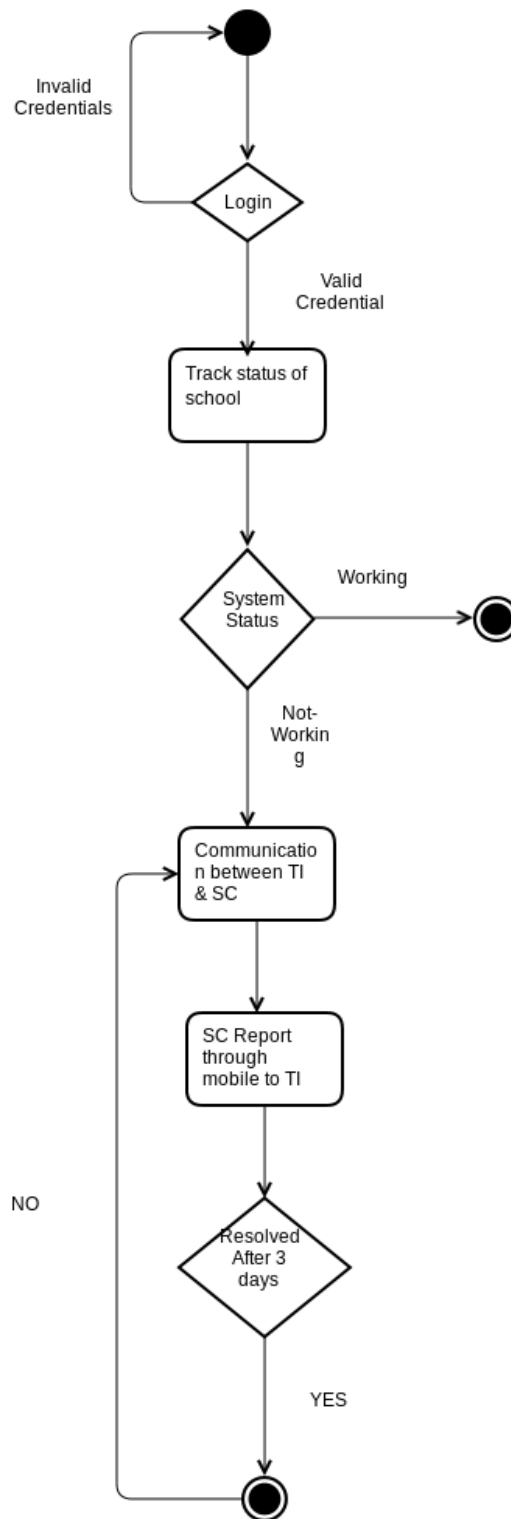
The following activity diagram shows how the TI will send the message to other TI's and to the SC. Ref:R1.4.1,R1.5,R1.5.1,R4.0

AD9. Login

The following activity diagram shows how the user will login.
Ref: R4.2

AD10. Issue Reporting
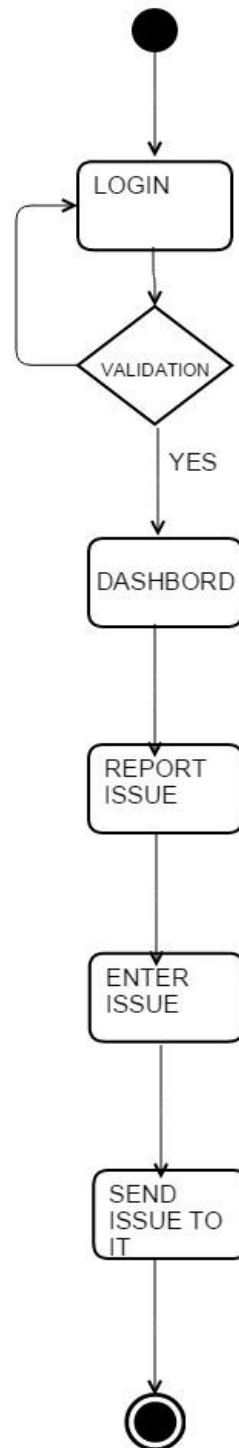
The following activity diagram shows how the SC will enter the issue
Ref:R1.5

AD11. Add Attendance
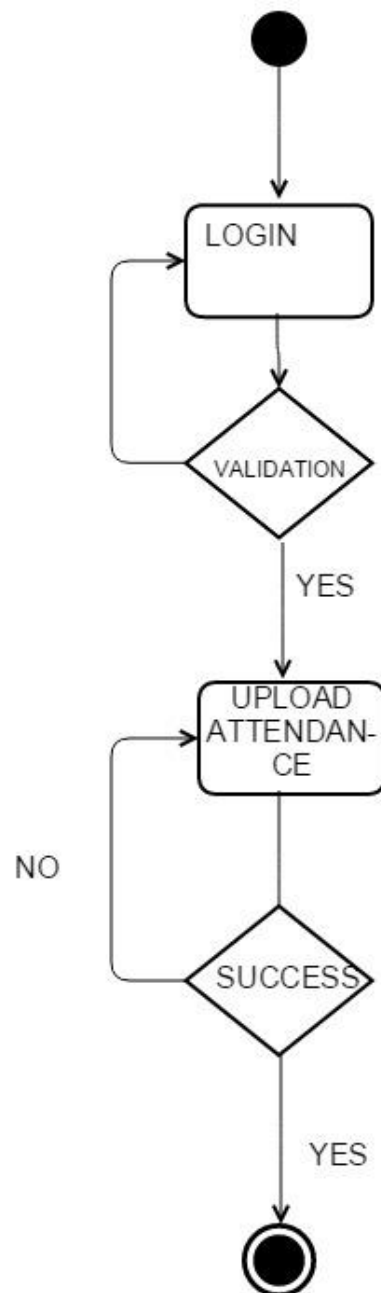
The following activity diagram shows how the SC will upload the attendance of the students.

4.) Sequence Diagrams

1. Login: Ref: AD9
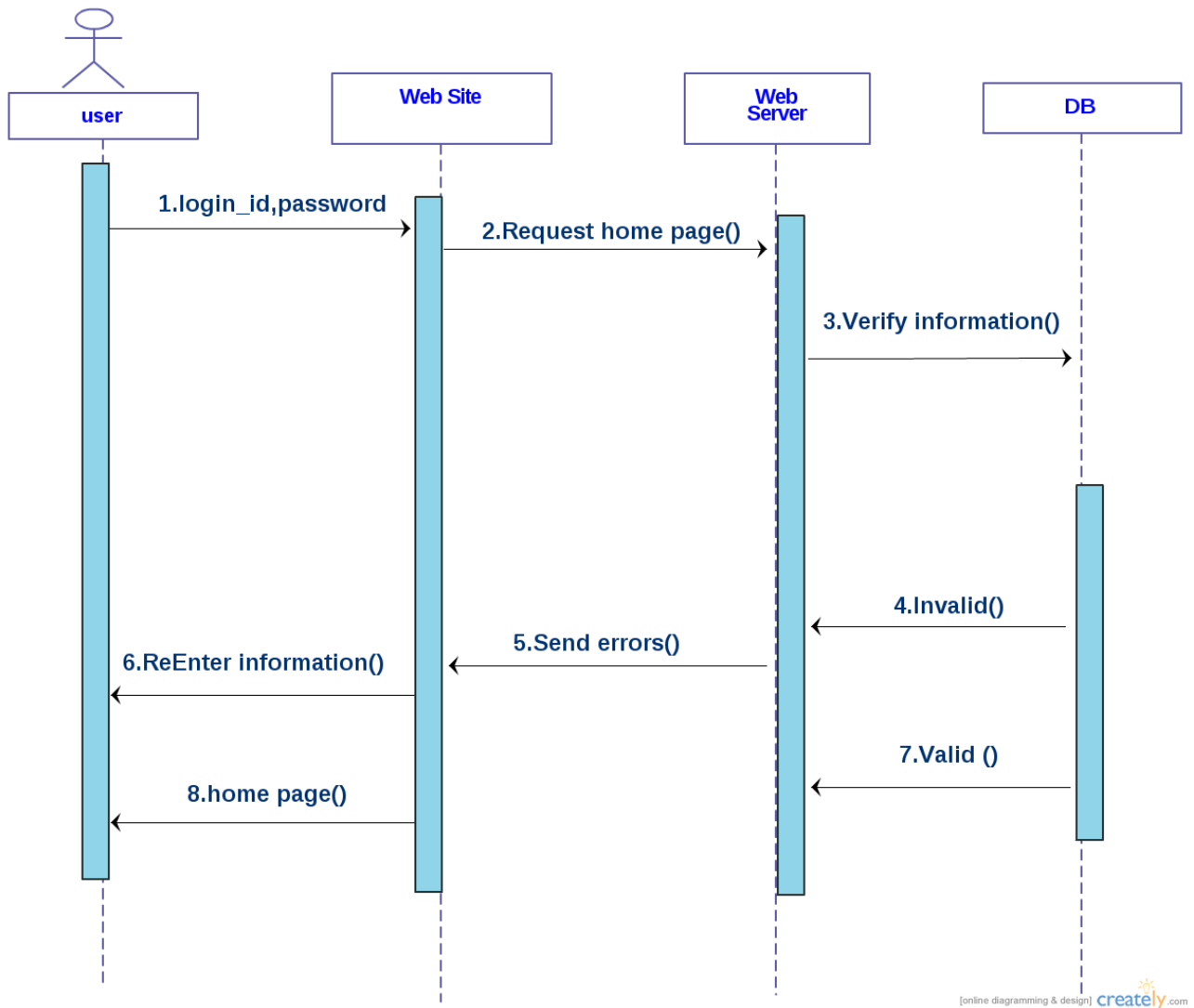
2. News Forum: Ref: AD5

3. View Report: Ref: AD6

TI — Web — Web — DB

1.Login()

2.Vaildate User()

3.Display Dahboard()

4.View Report

5.Report of Classes/Data/Attendance
text

6.Return Report
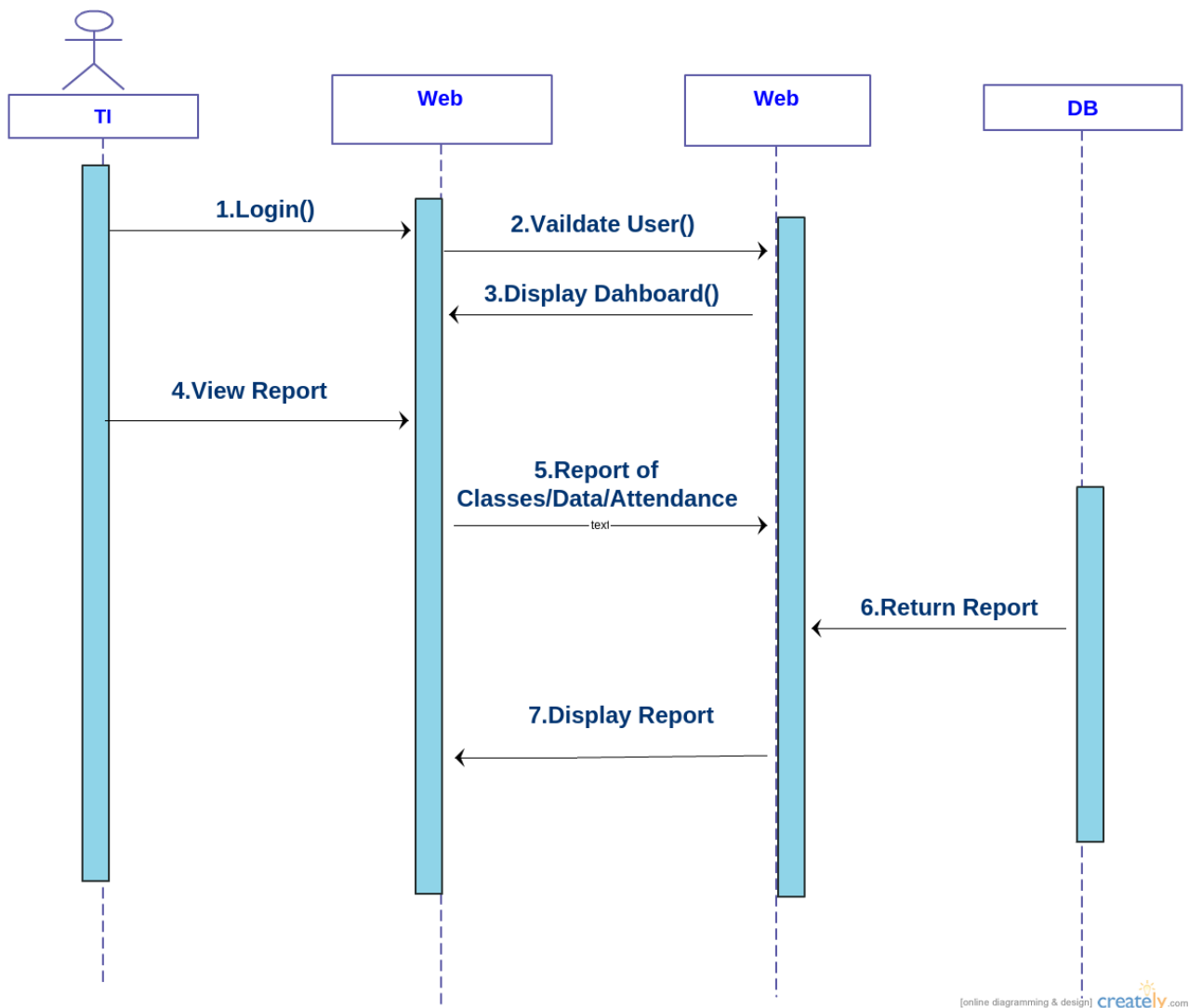
7.Display Report

4. Report Issue: Ref: AD2

5. Upload: ref: AD11


```
                    1.Login()              2.Vaildate User()
SC  ───────────────────────────▶ Web ───────────────────────────▶ Web

                                        3.Display Dahboard()
                                 Web ◀───────────────────────────

    4.Select Upload
       Attendance
SC  ───────────────────────────▶ Web

                                        5.Insert Attendance
                                                text
                                 Web ───────────────────────────▶ DB

                                                            6.Insert in DB
                                 Web ───────────────────────────▶ DB

                                        7.Send Confirmation
                                 Web ◀───────────────────────────
```
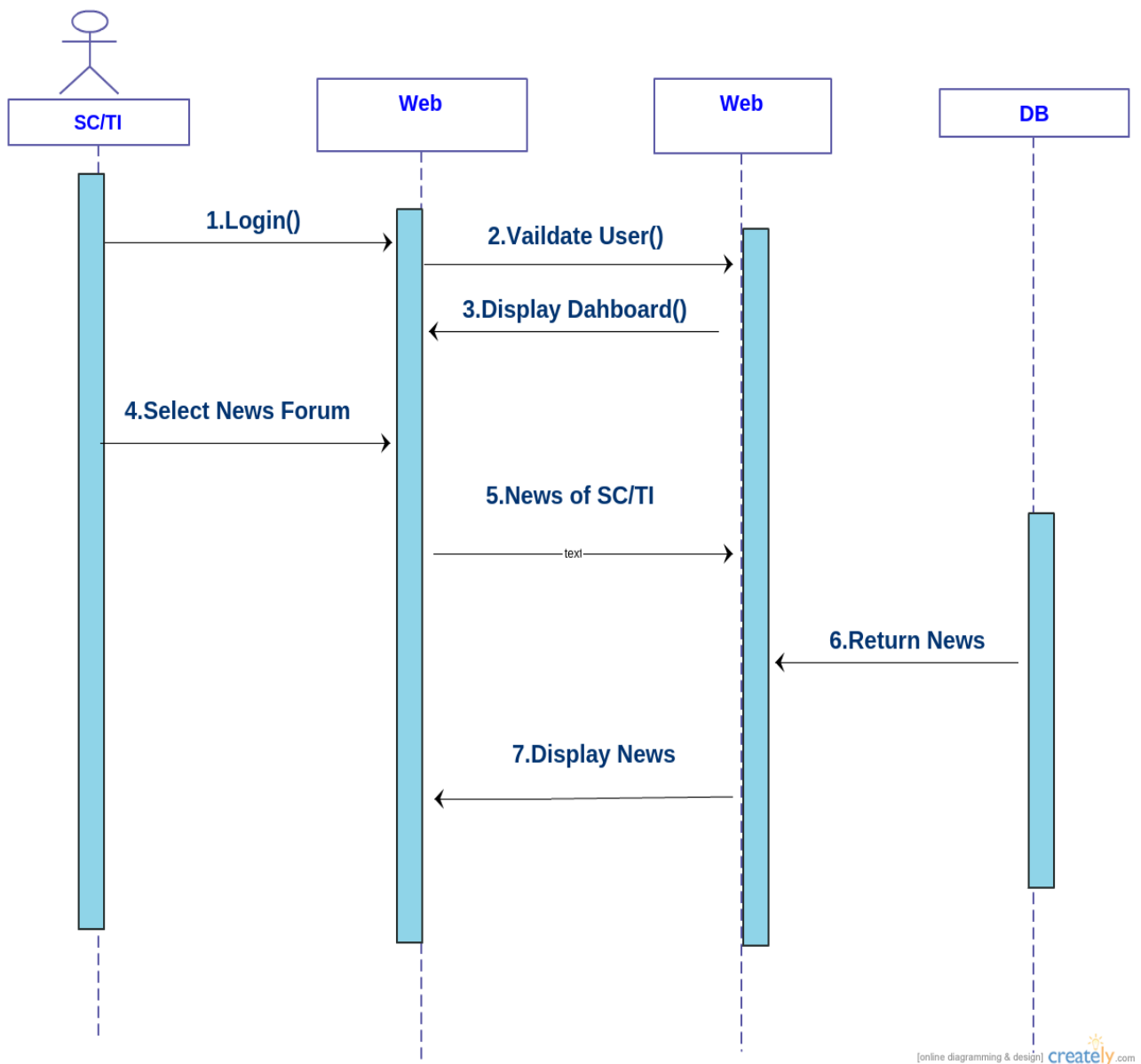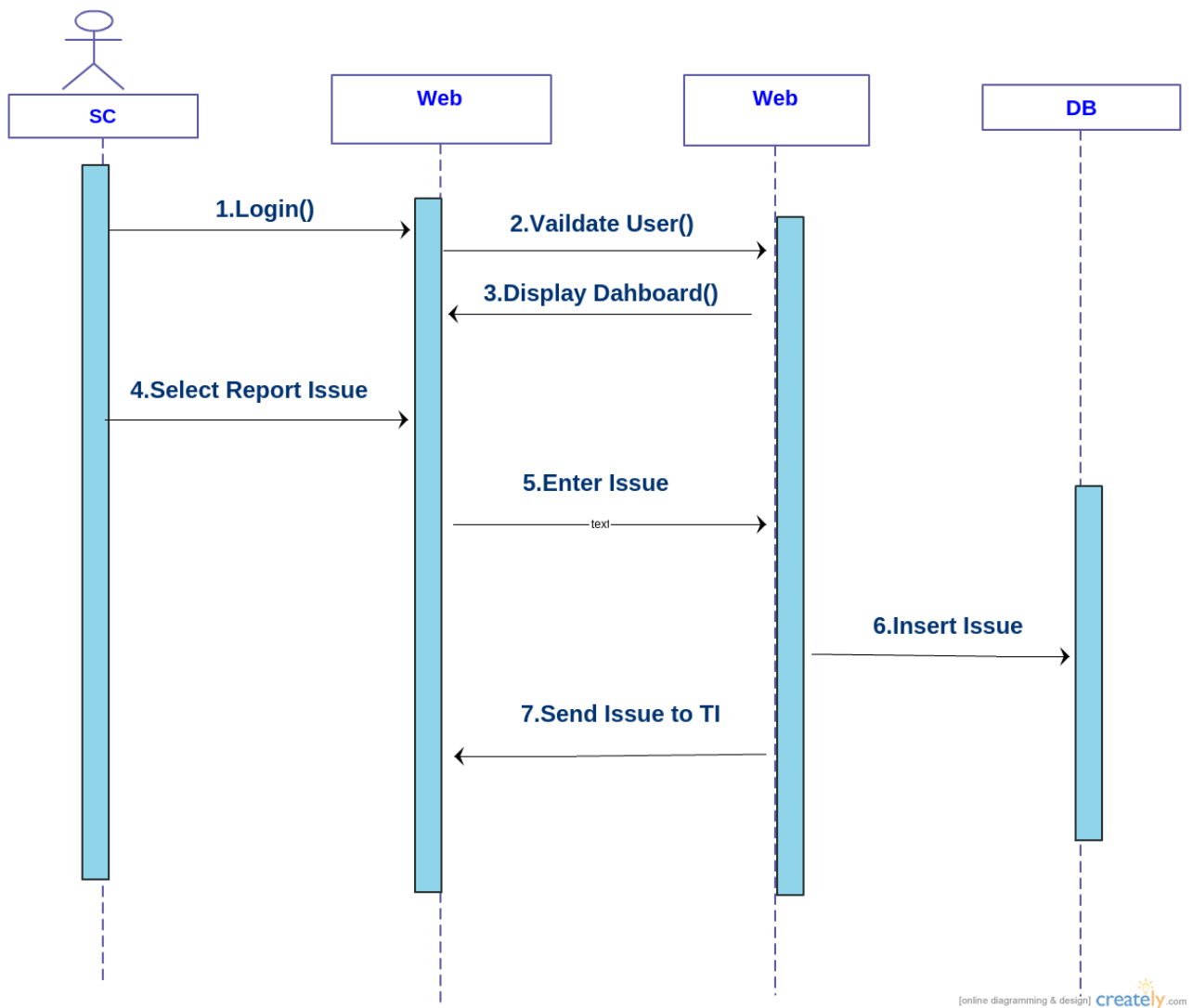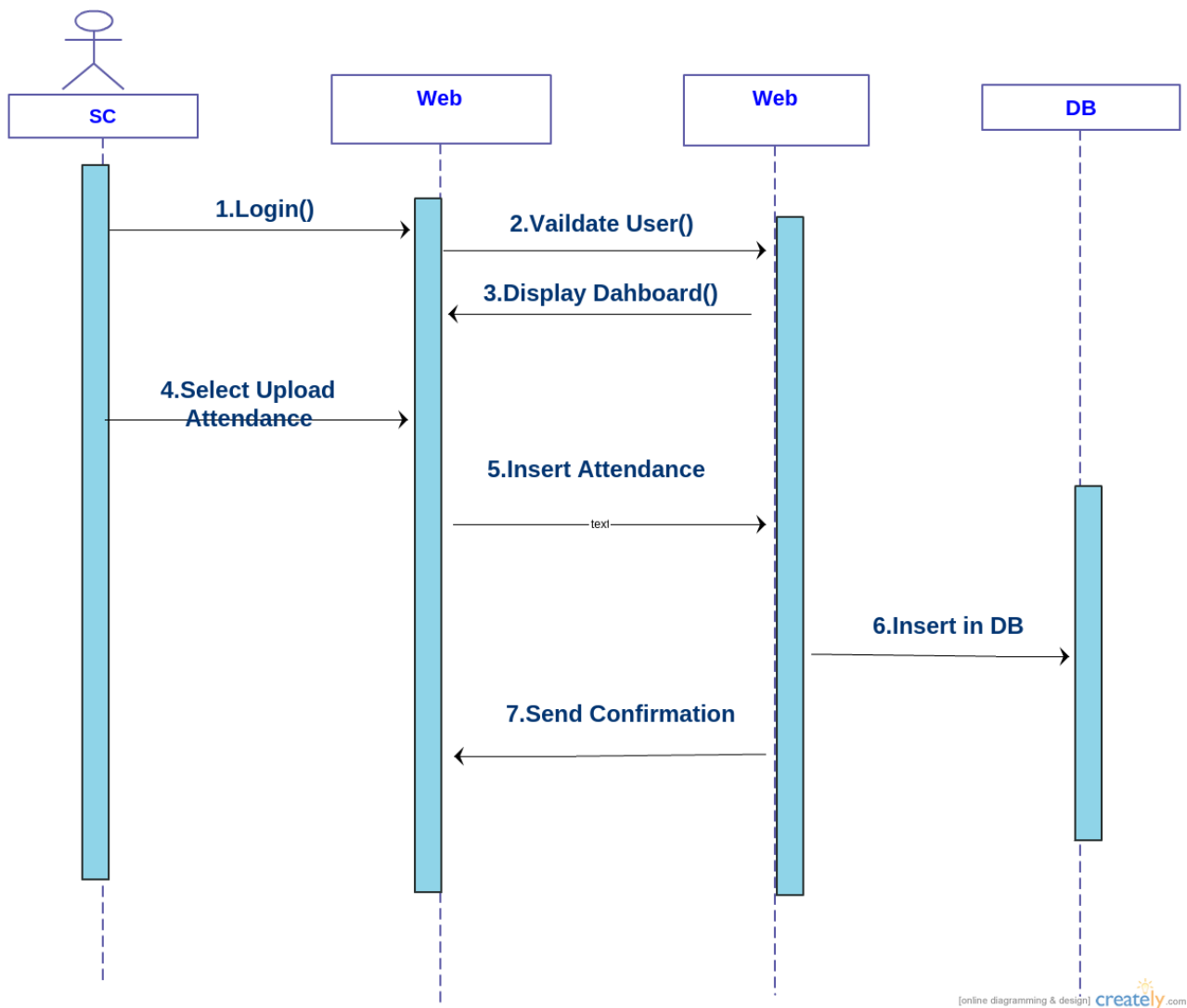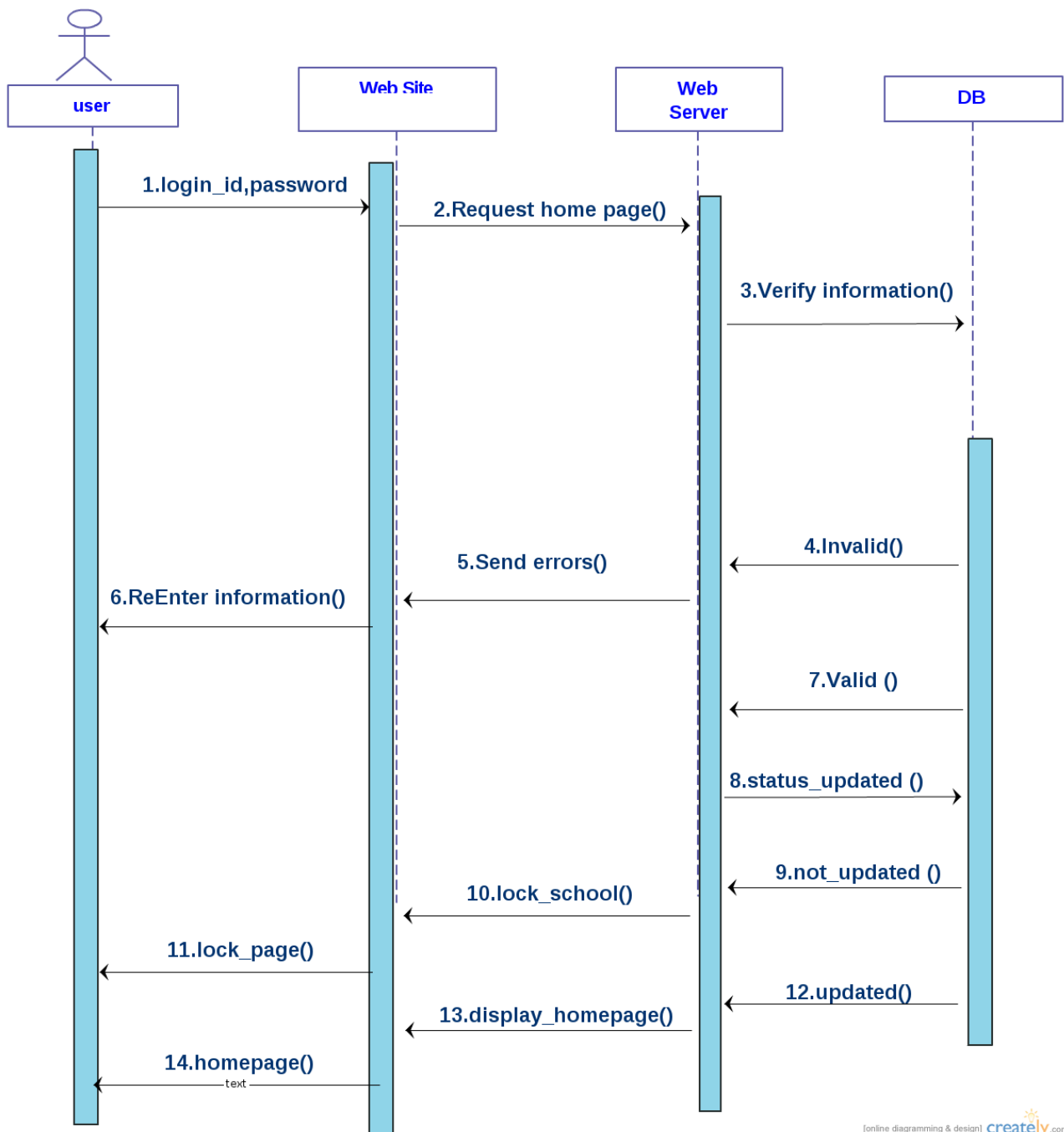
6. Lock School Computer: Ref: AD1

7. Question Answer: Ref: AD3

Sequence diagram with lifelines: TI, Web Site, Web Server, DB

1.login()
2.validateUser()
3. displayDashboard()
4.clicksOnForum()
5.processRequest()
6.displayQuestionMedia()
7.clickUpload()
8.processRequest()
10.displayUploadFor
11.fillDetails()
12.submit()
13.save()
14.forumPage()
15.displayForumPage()

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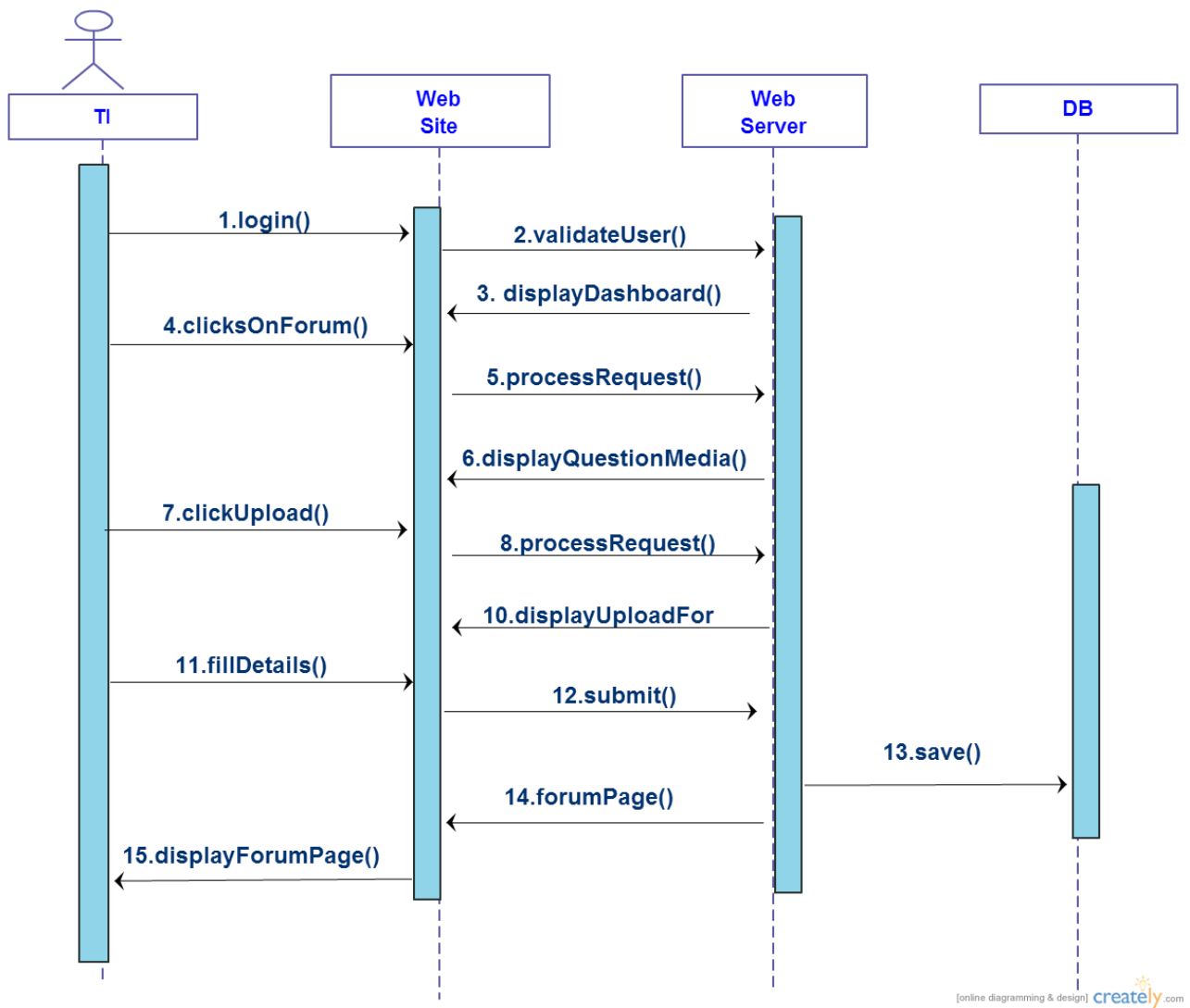
8. Broadcast message to SC: Ref: AD4

TI — Web Site — Web Server — DataBase

1.Login()

2.Validate User()

3. Display Dashboard()

4.Clicks on BroadCast

5.Display Message

6.Clicks on send button()

7.Send Message to All SC

8.Store Message in DB()

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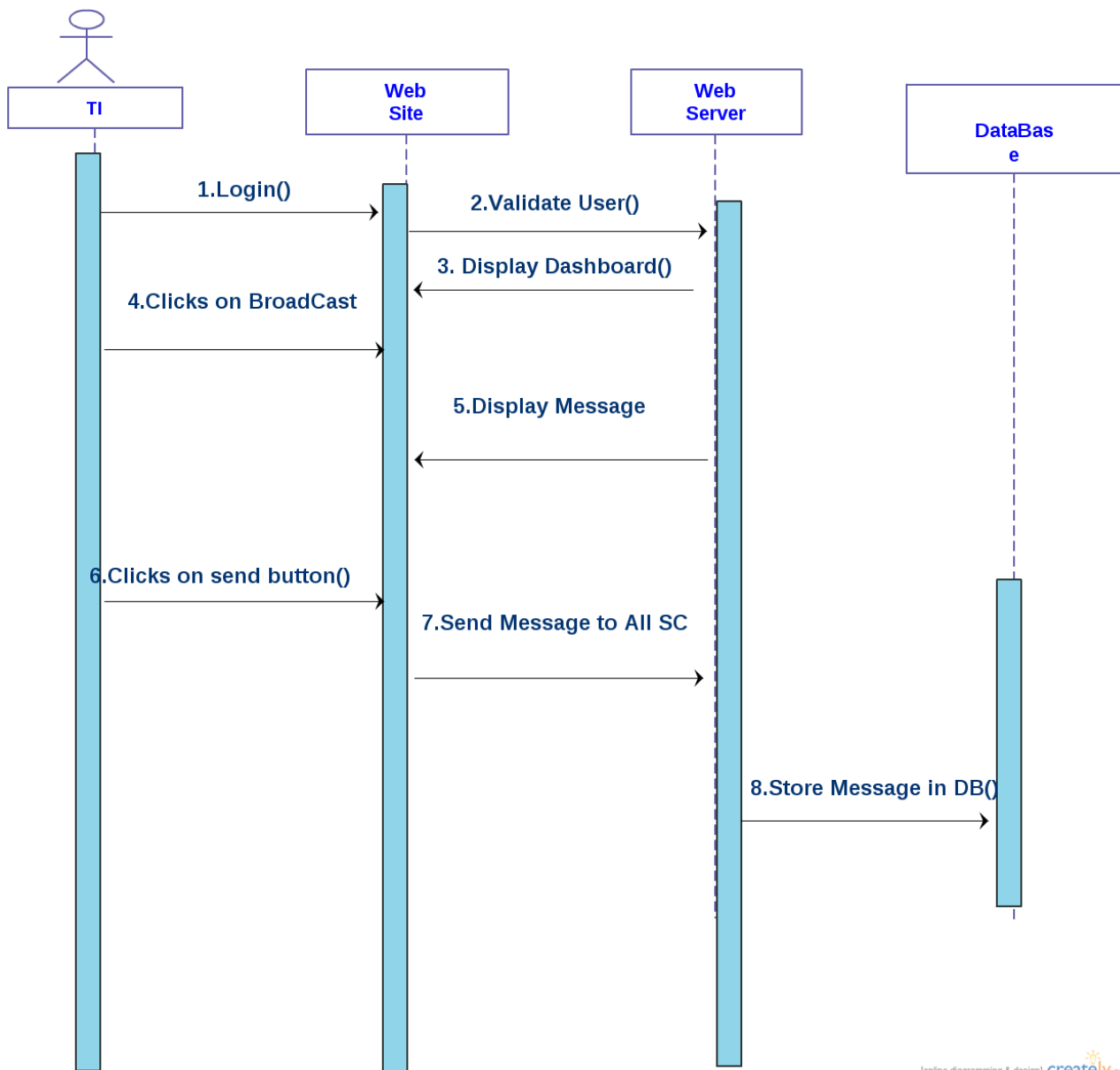
9. Display Message: Ref: AD7
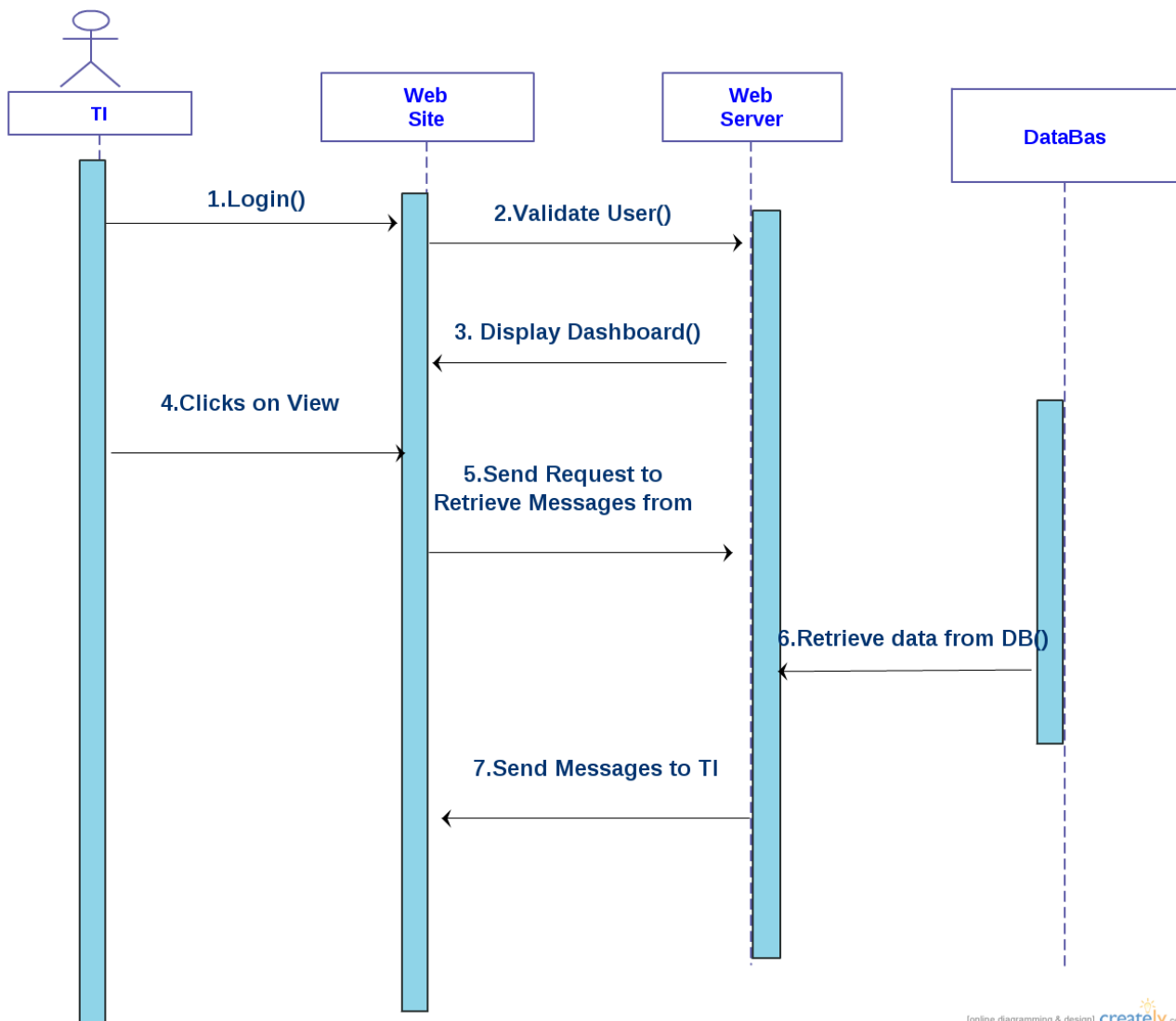
10. Send Message to other TI: Ref: AD8
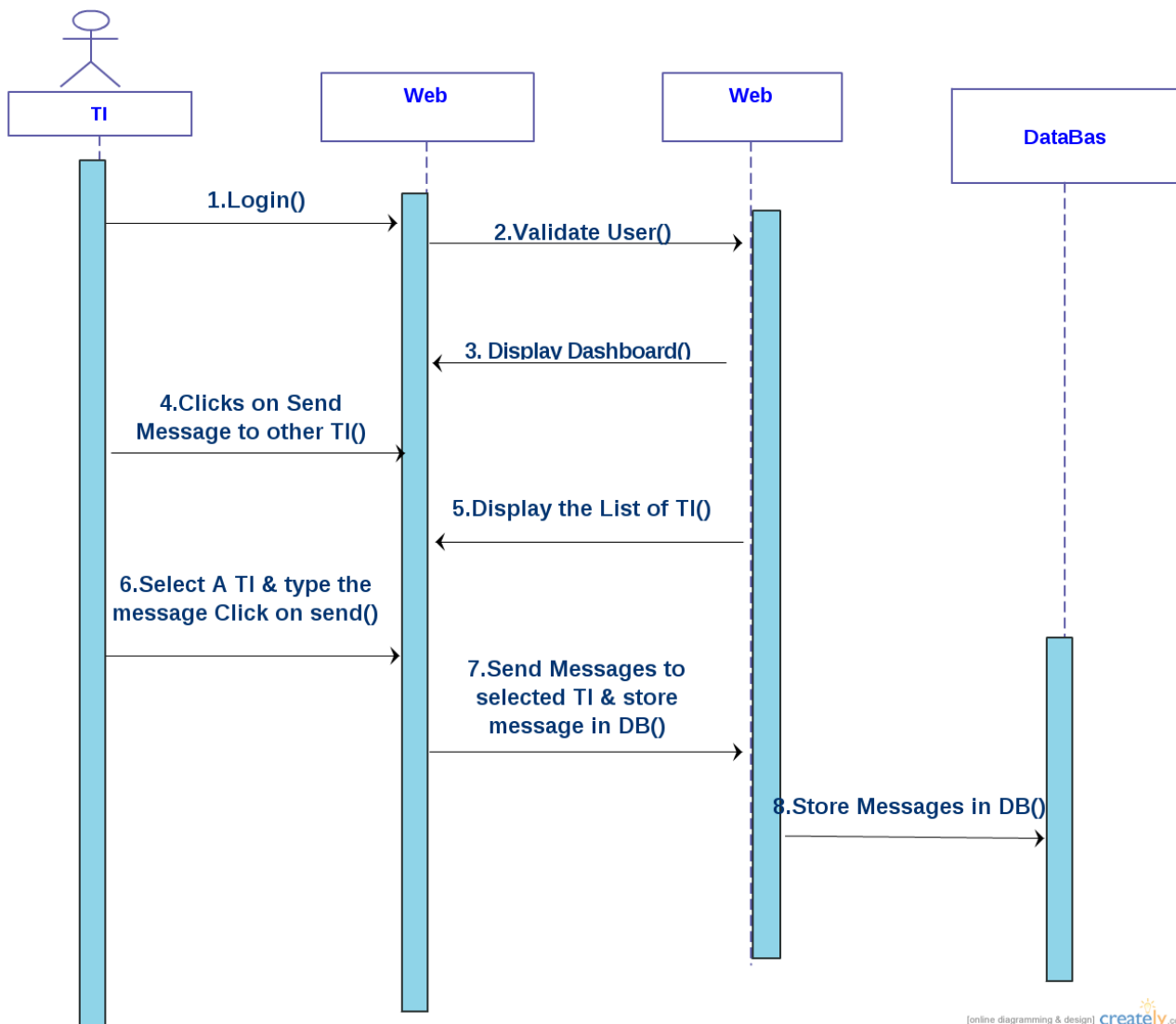
11. School Status: Ref: AD2
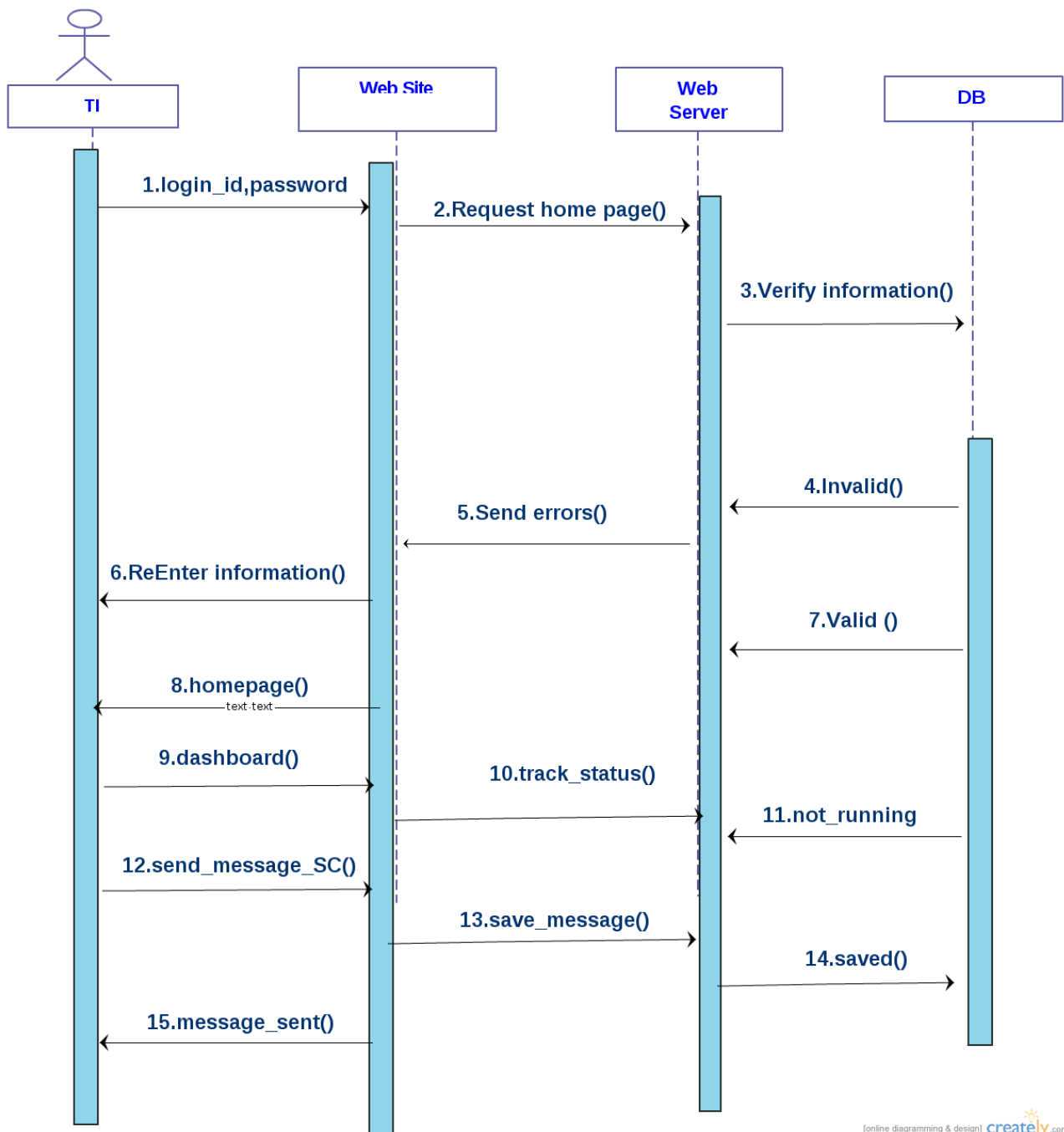
5.) Architecture Diagram

Application Server
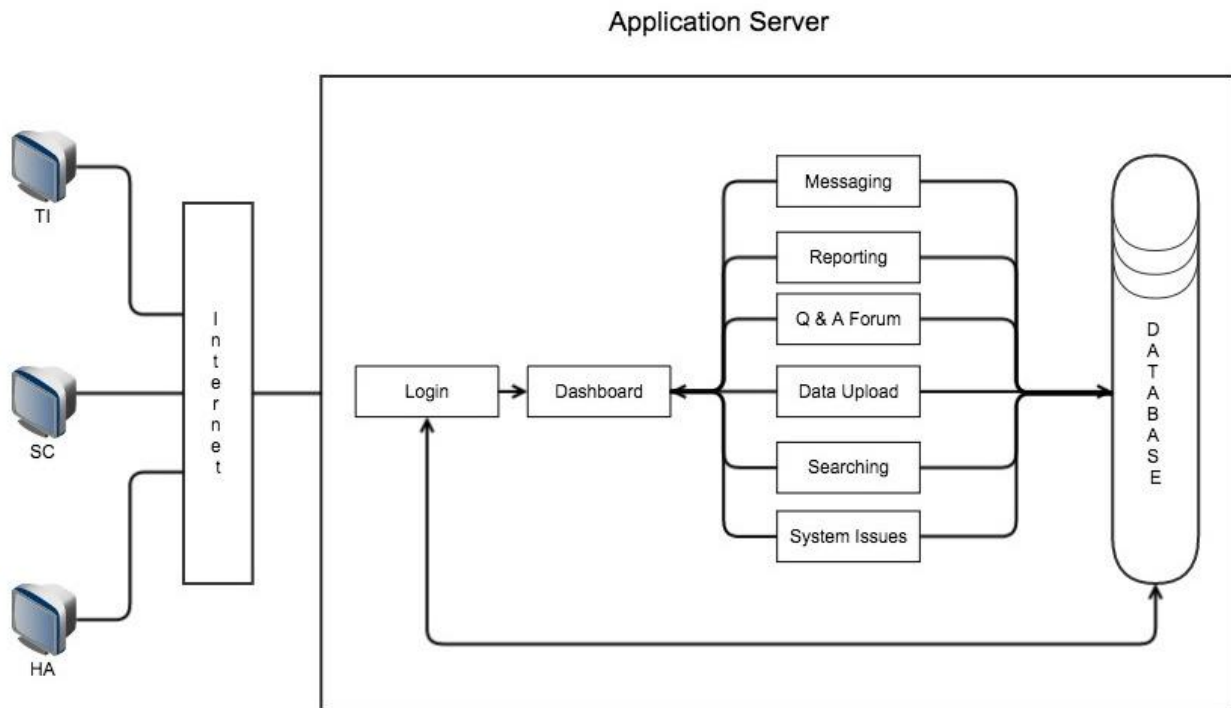
6.) Module Decomposition:

MODULE DECOMPOSITION:
 6.1MESSAGING AND NOTIFICATION ref: R1.4, R4.0, R4.1

This module will implement the functionality of messaging, such as personal message between TI and broadcast messages from HA and TI.
This module will also take care of notifications for various events like profile approval notification, issue status data upload notification.

6.2LOGIN AND APPROVAL SYSTEM ref: R3.0

This module implements the functionality of credentials based login system where a user requires a login id and password for using our system.
Any new profile registrations are also handled here along with an approval system which requires the user above the hierarchy to approve the validity of the user willing to register. HA will be created by   System admin manually.

6.3. REPORTING ref: R5.0

This module implements the functionality of report generation for attendance and marks. These reports can be bi weekly or monthly.

6.4. DATA UPLOAD ACTIVITY ref: R3.0

This module handles the data upload activity related to attendance data and marks data. SC will be using this module to upload data. This module captures dynamic test creation also.

6.5. UI MODULE AND SEARCHING ref R1.0

This module covers the user interface part of the system, like the home screen for various actors in the system and links all the functionality available to them on a single dashboard.
This module also incorporates the searching functionality required by many other modules for different tasks like searching recipient for message etc.

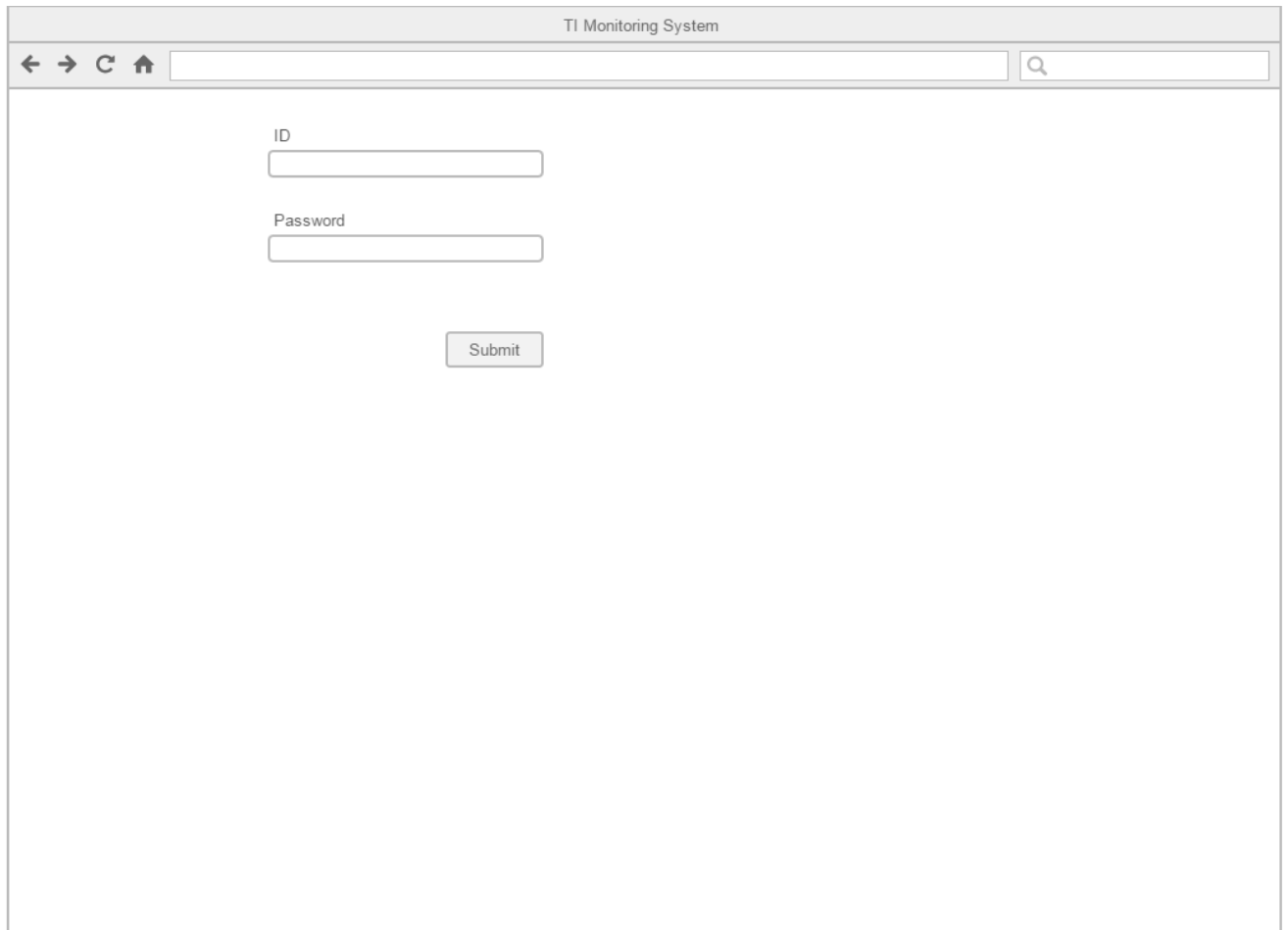**6.6. QUESTION AND ANSWER FORUM** ref: R1.0, R1.1, R1.2, R1.3, R1.5

Functionality implemented by this module is to provide a forum for posting question and answer. Here the answer can be up voted and question can be posted based on tags for respective class, subjects and sub topics.

6.7. SYSTEM ISSUE, SMS GATEWAY AND RUNNING STATUS ref: R2.0

This module provides the functionality for issue tracking and class running status.
Here a SMS channel is also going to be there for helping in various functionalities.
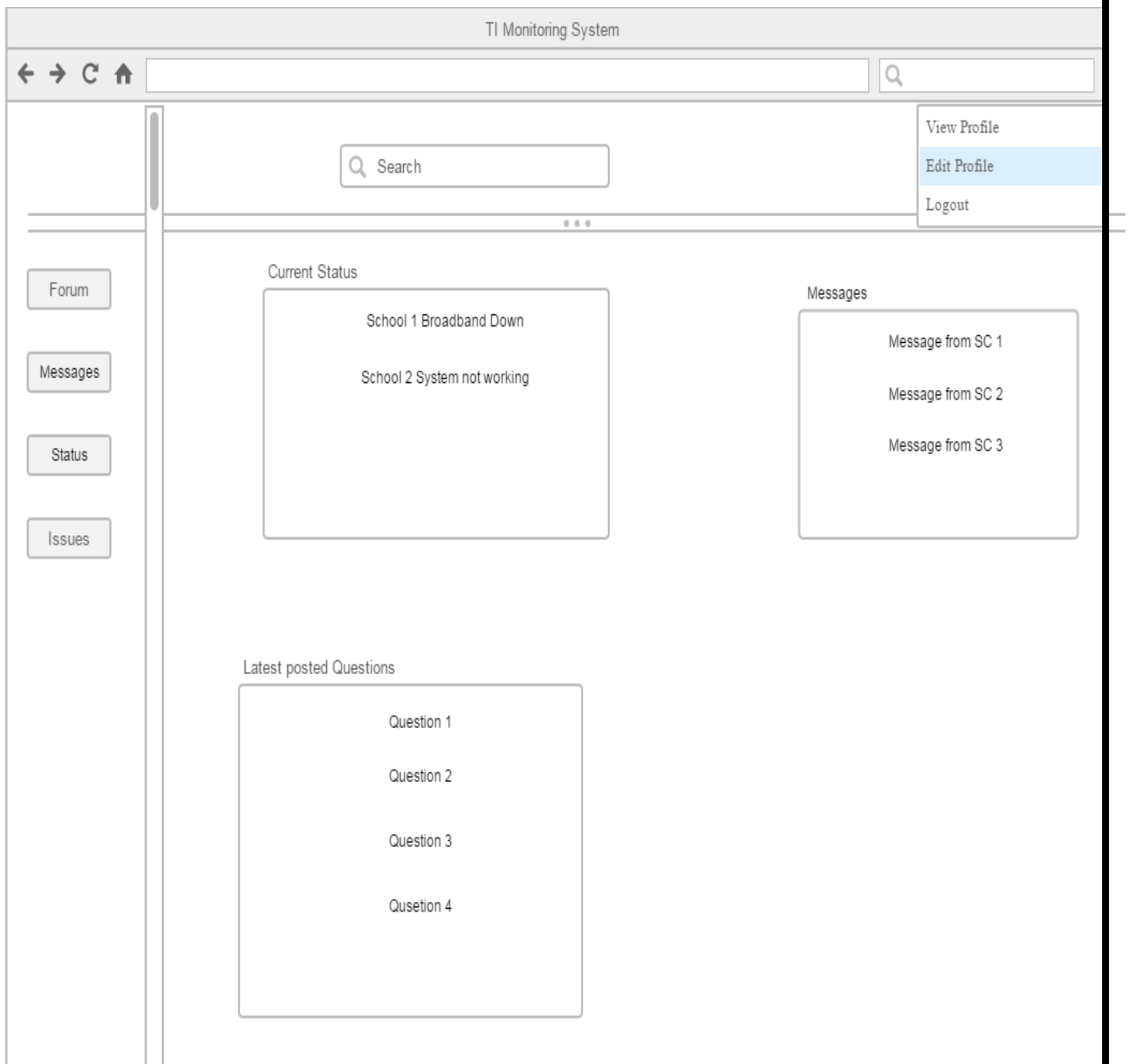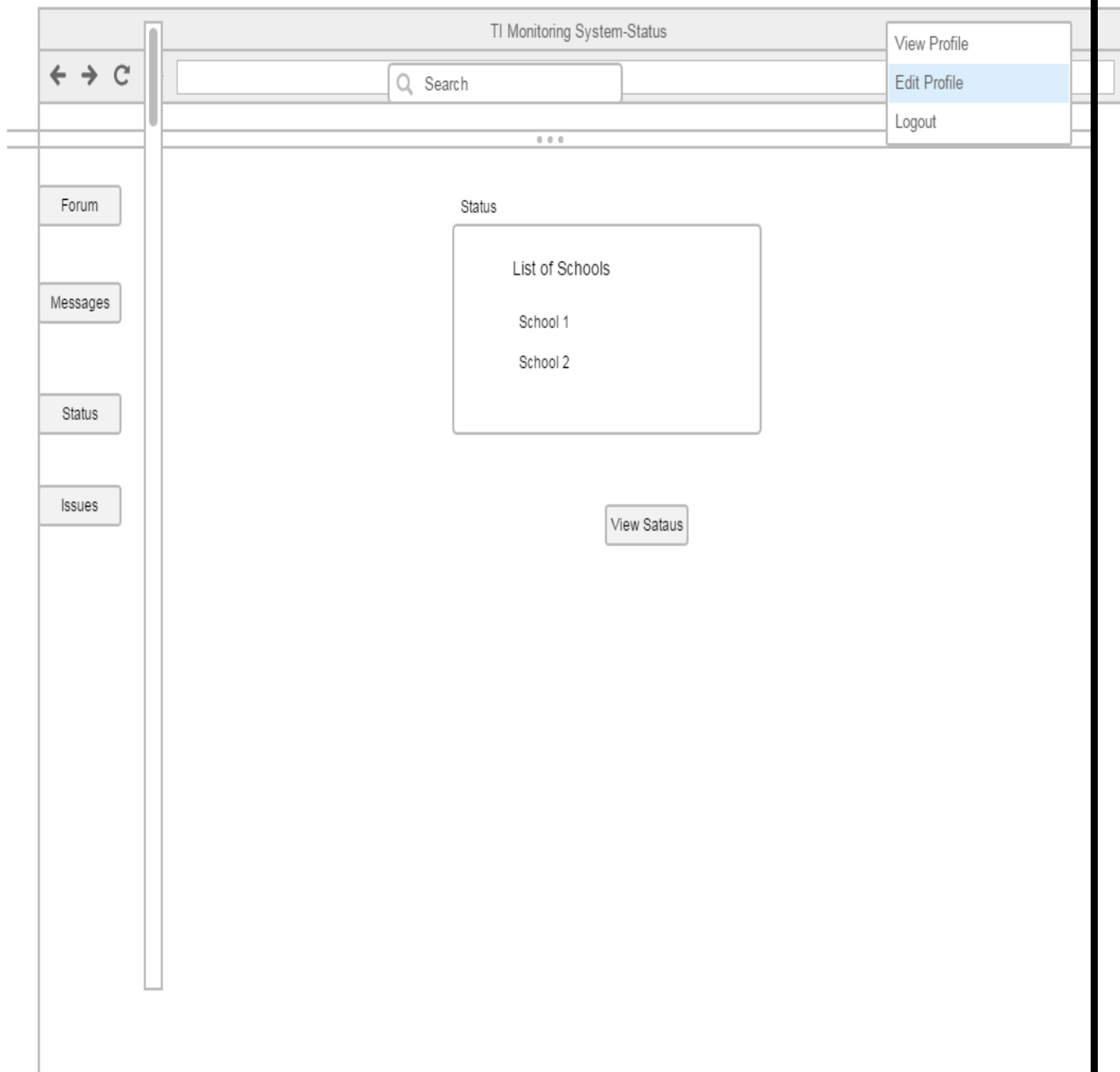
7.) SCREENS

1. Login

The following screen shows how the user will login into the system.

2. TI Monitoring System

The following activity diagram shows how the TI will get different messages after logging into the system.

3. Database Status

The following activity diagram shows how the TI will monitor whether the data is filled by SC or not.
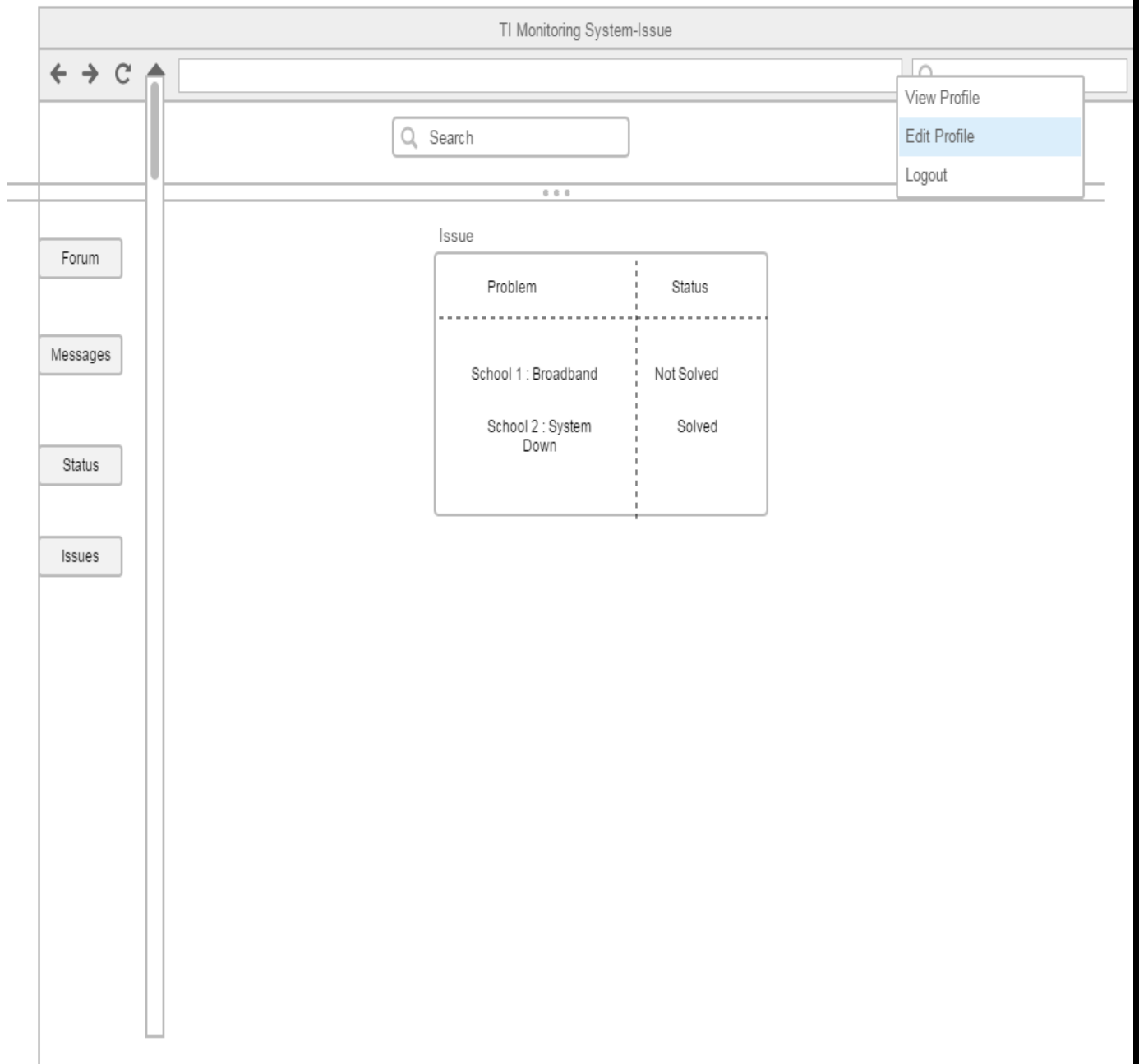
4. System Running Status
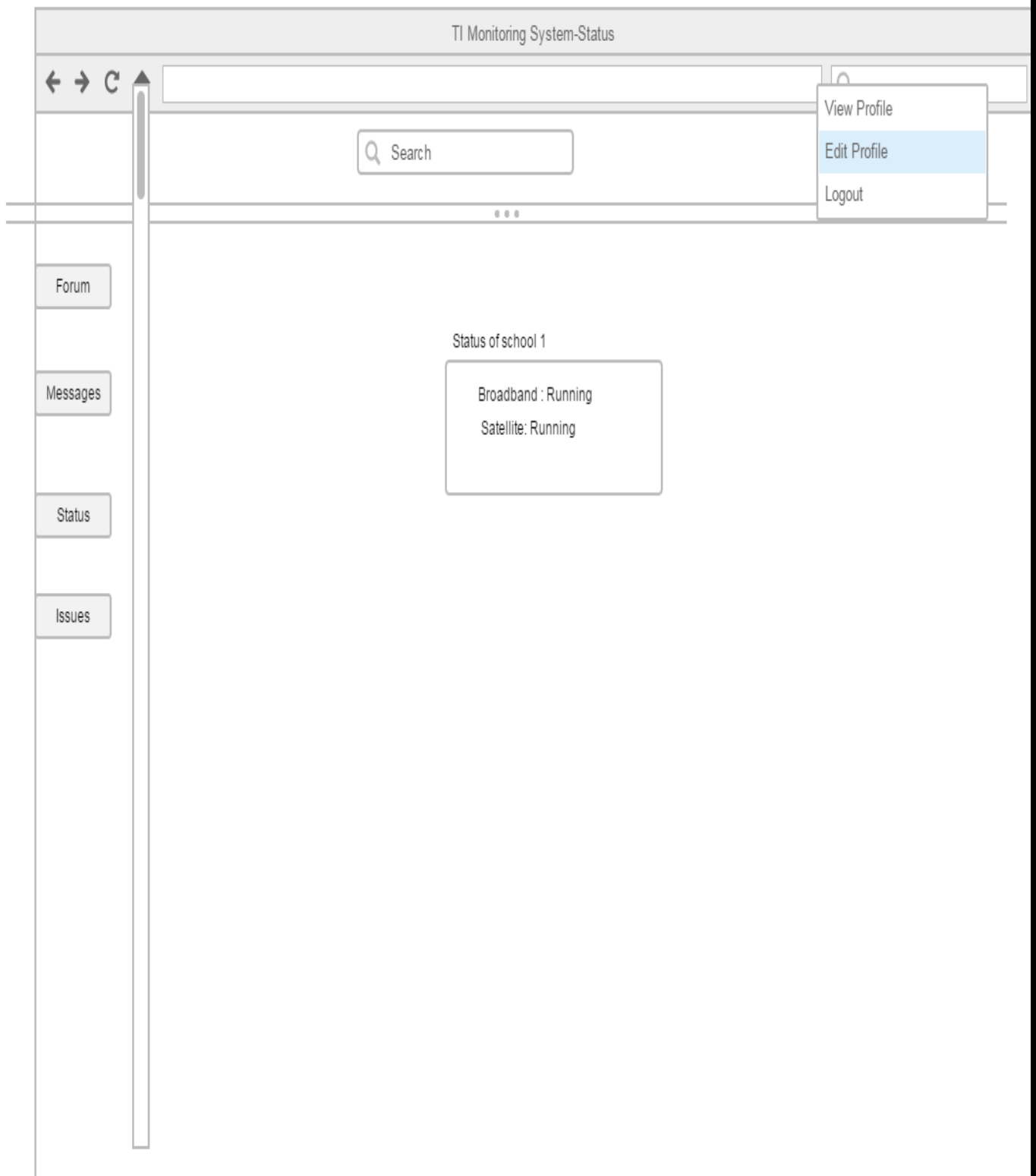
The following activity diagram shows how the TI will monitor the system running status of
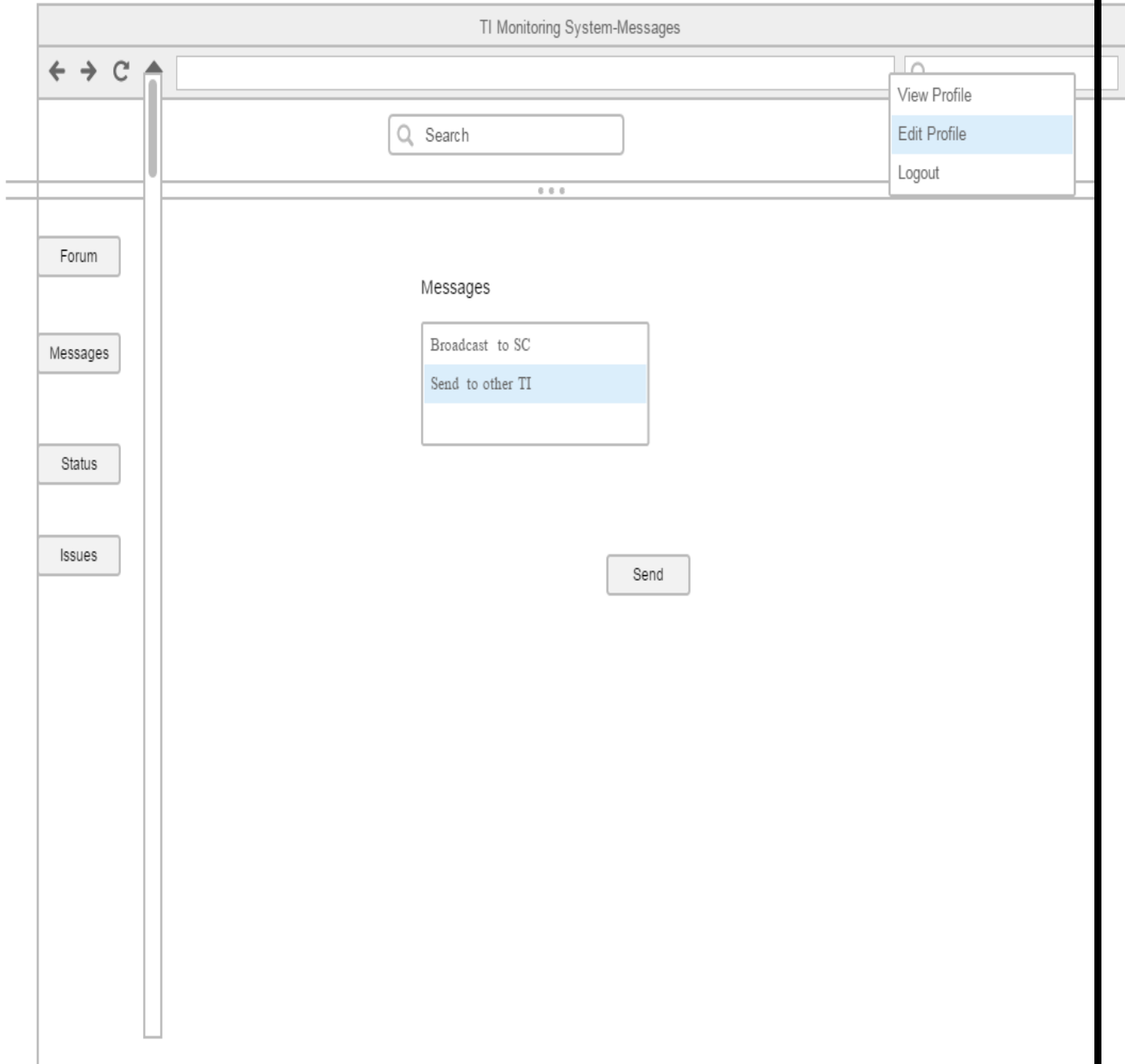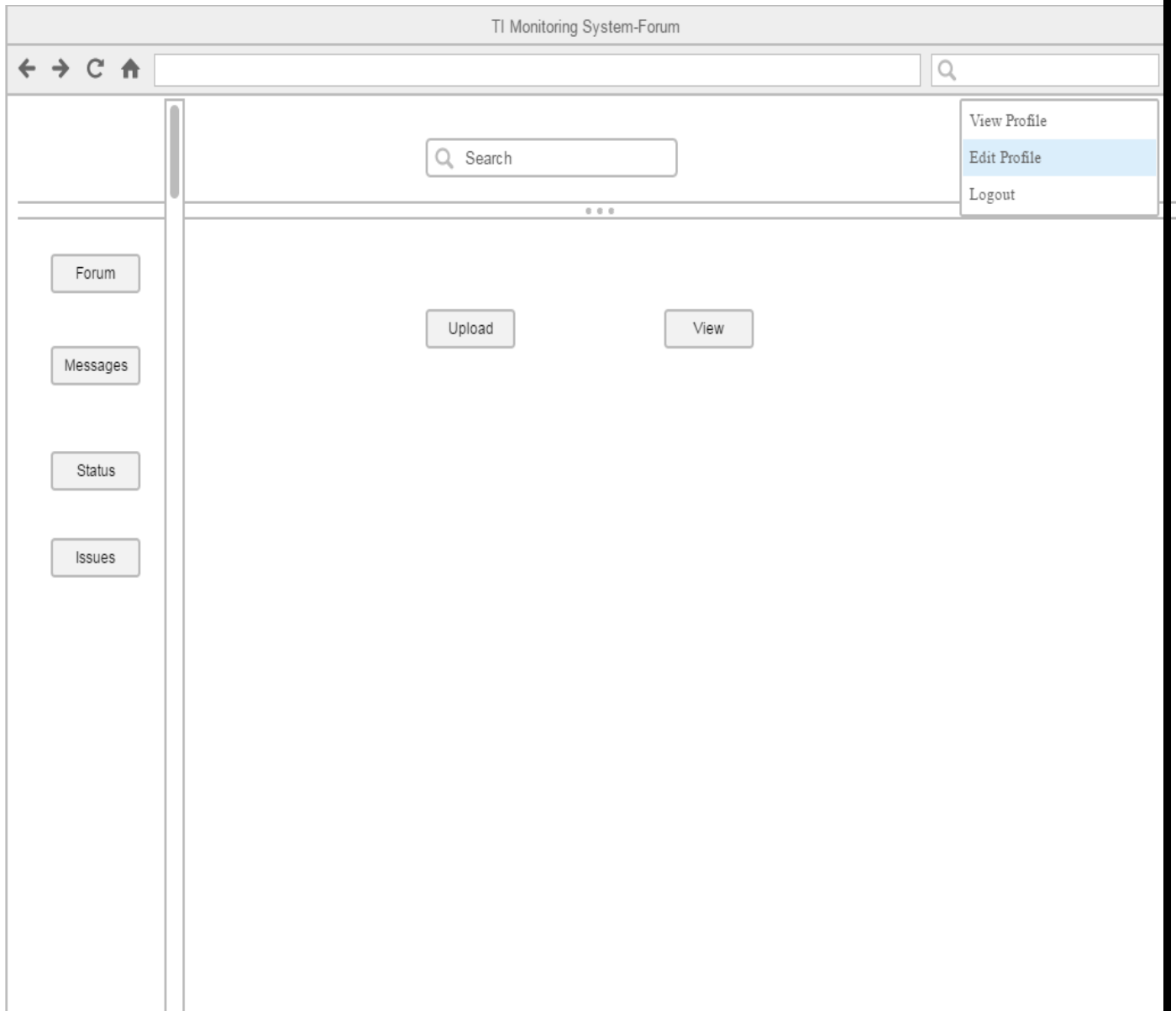
schools.

5. Issue Status

The following activity diagram shows how the TI will report whether the issue is solved or not.

6. Messages

The following activity diagram shows how the TI will send the message to other TI or to the SC.
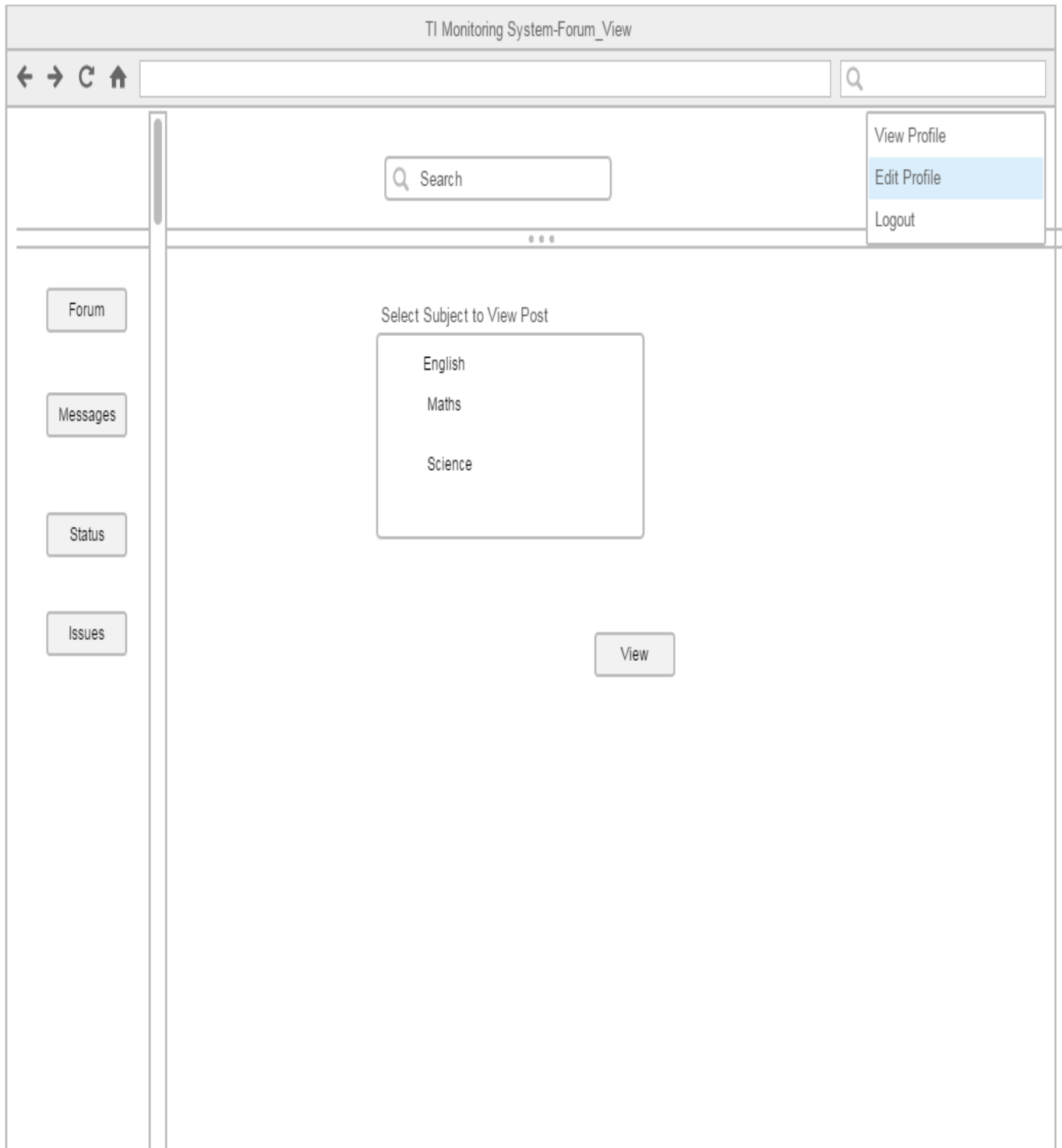
7. Forum

The following activity diagram shows how the TI can upload or view the question and answer.
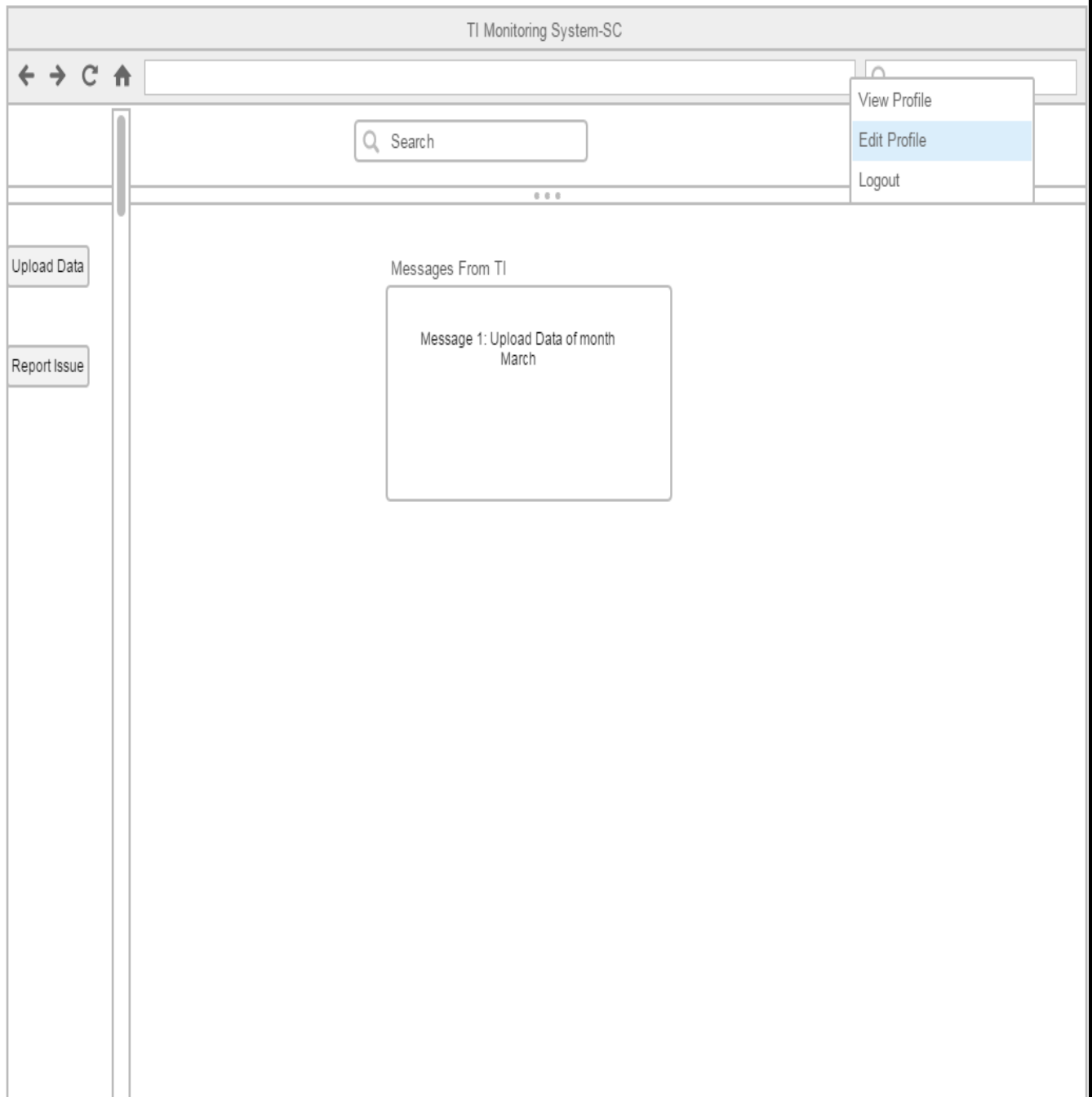
8. Upload Q/A

The following activity diagram shows how the TI will upload the Q/A.

9. View Q/A

The following activity diagram shows how the TI will view Q/A uploaded on the forum by other TI.

10. SC screen

The following screen shows how the SC can fill the data of the students.