National Institute of Technology Calicut

Department of Computer Science and Engineering

Design Document

Acethexam

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1 Introduction

1.1 Purpose of the Document

The Purpose of this Document is to convey the Design of Acethexam System using Several modeling Diagrams namely Class Diagrams, Sequence Diagrams, E-R Diagrams, Activity Diagrams taking into consideration the SRS of the system.

2 Class Diagram
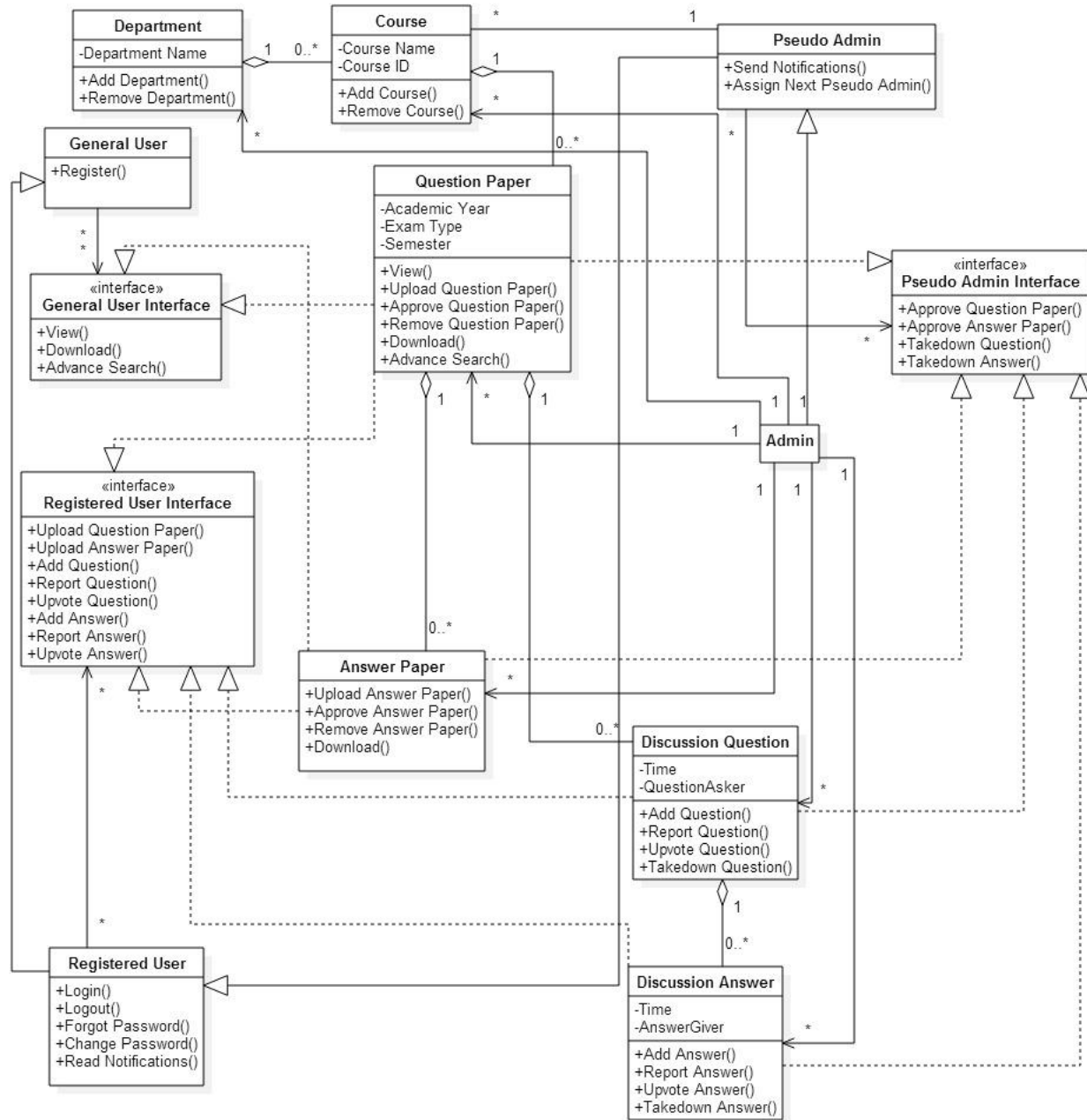
Figure 2-1

3 Sequence Diagrams

3.1 View/Search/Download
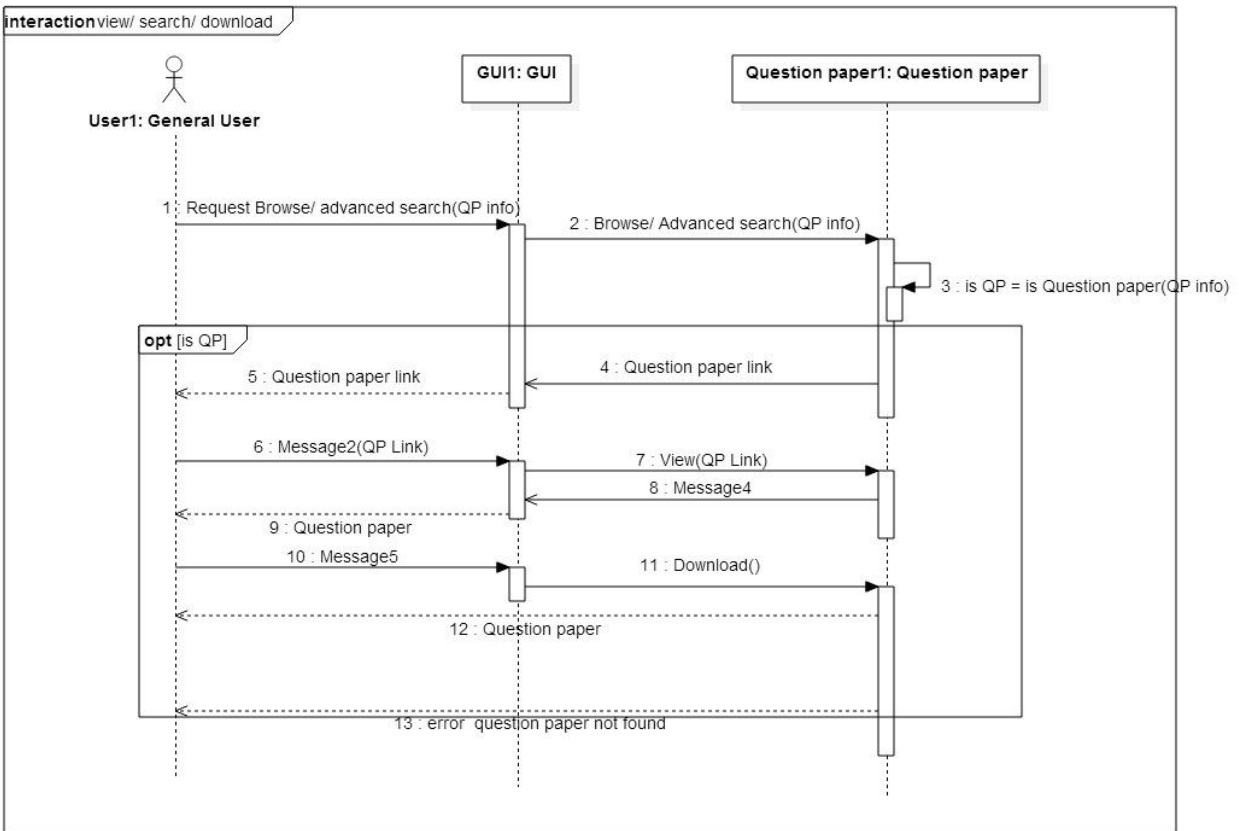
Figure 3-1

3.2 Register
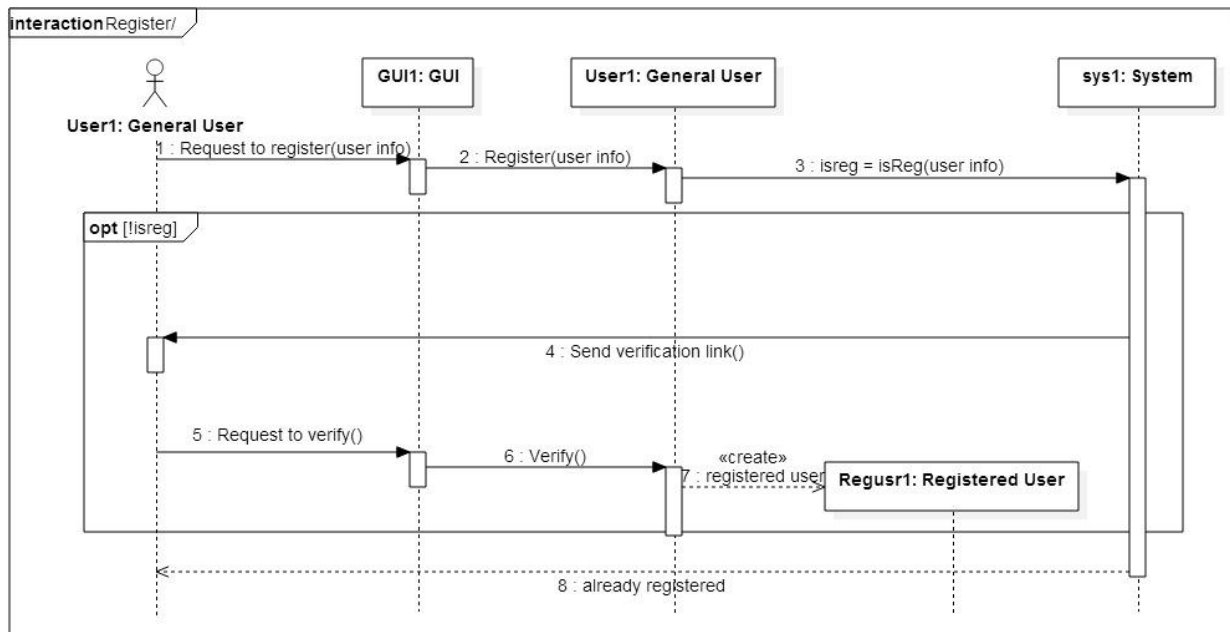
Figure 3-2

3.3 Login/Logout/Change Password

Figure 3-3

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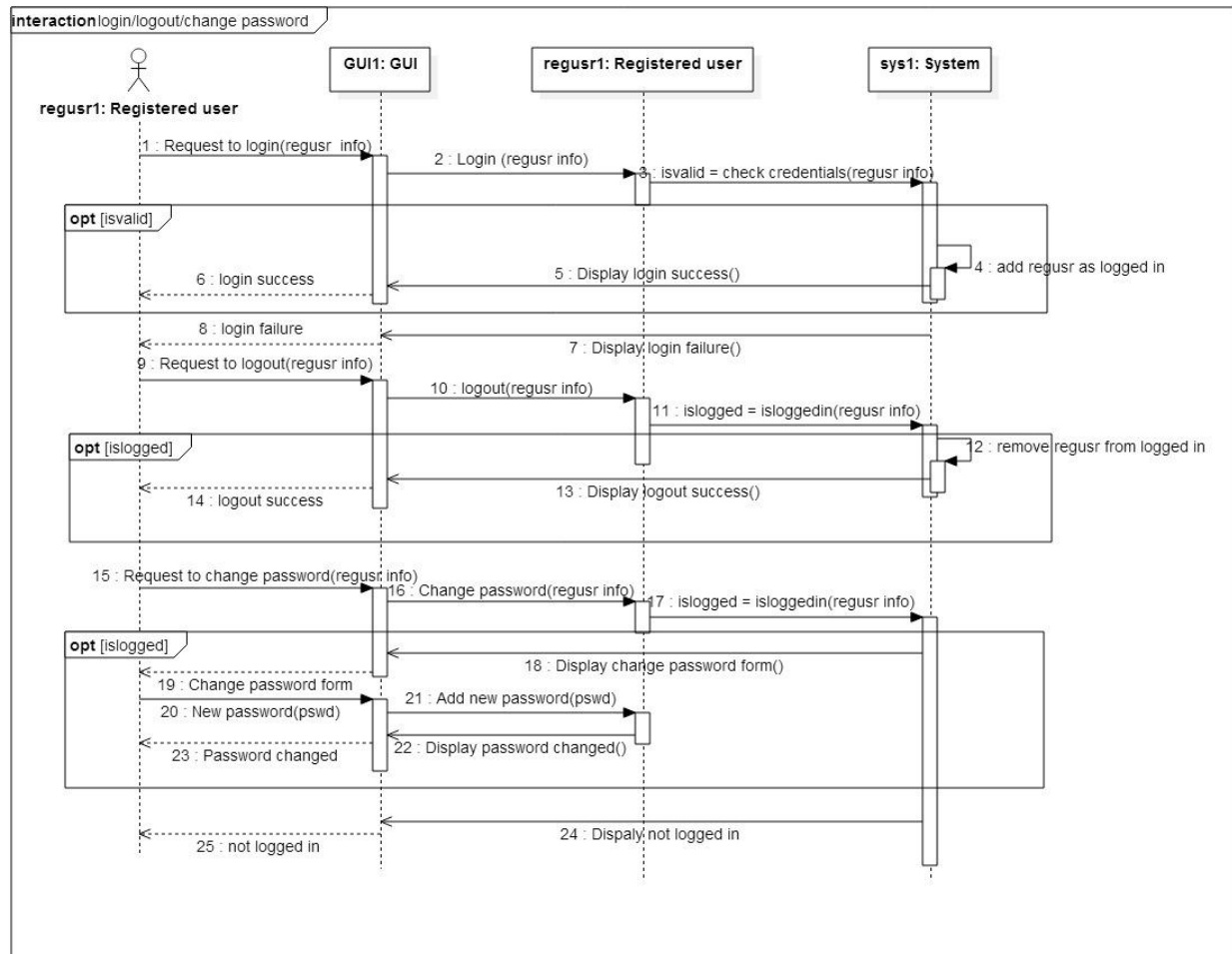
3.4 Forgot Password
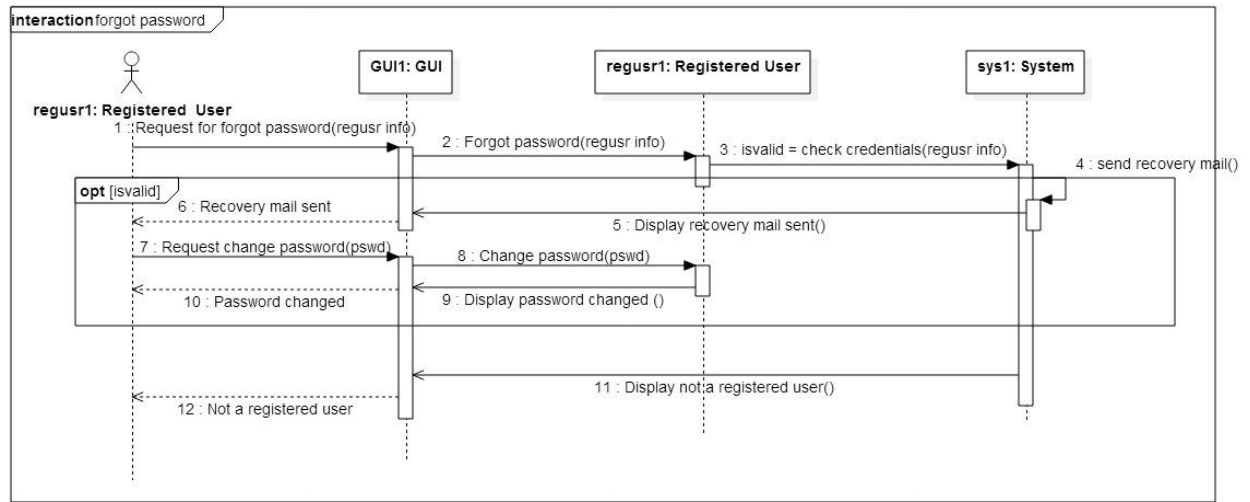
Figure 3-4

3.5 Upload

Figure 3-5
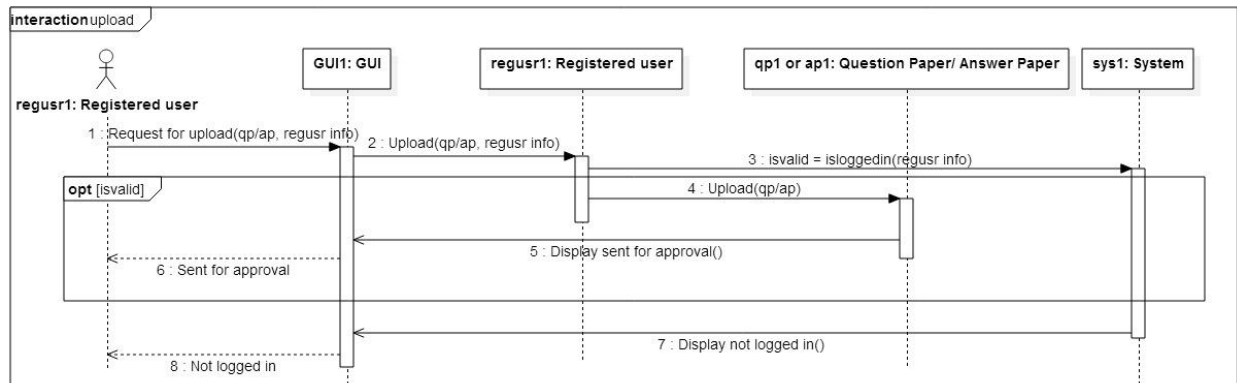
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3.6 Add Question/Answer
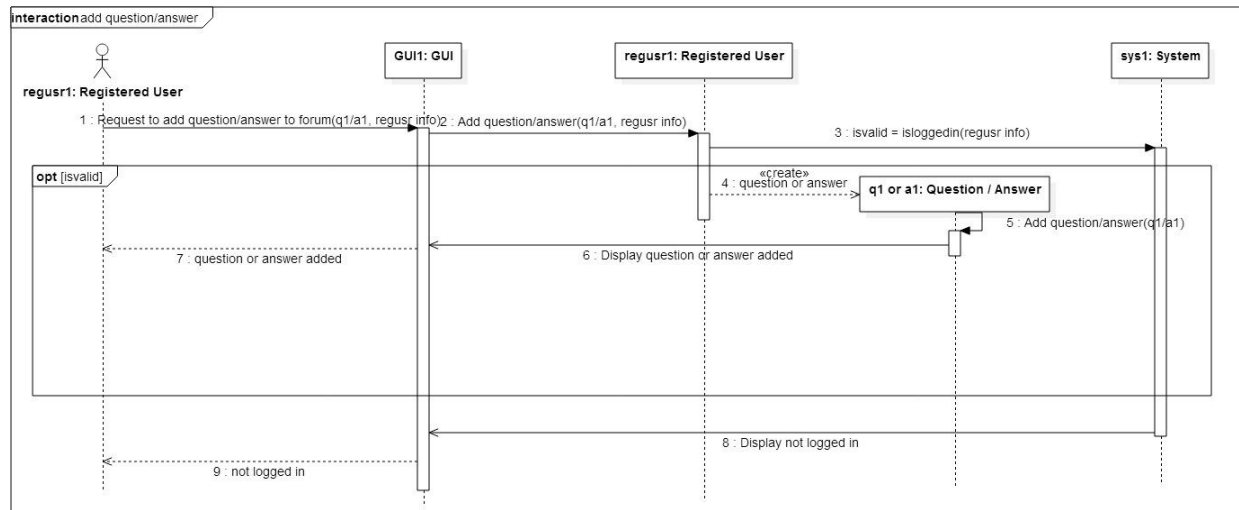
Figure 3-6

3.7 Read Notifications
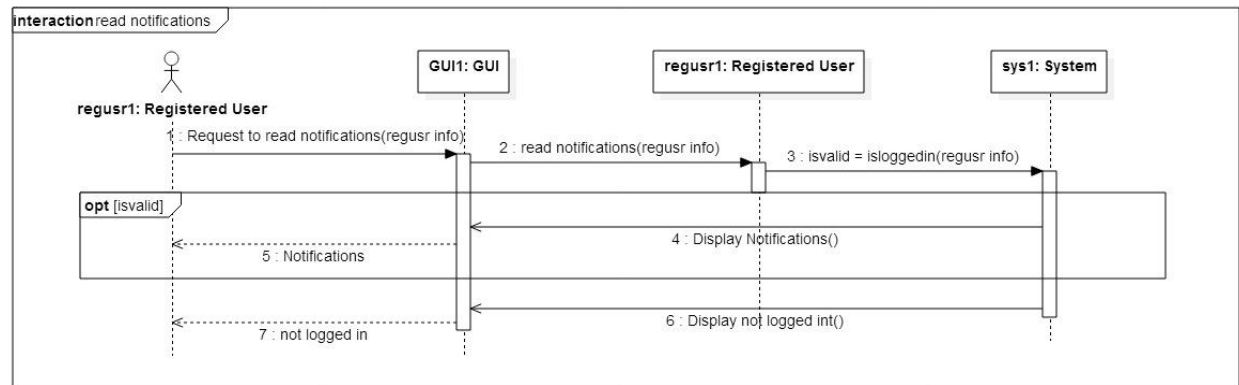
Figure 3-7

3.8 Upvote/Report
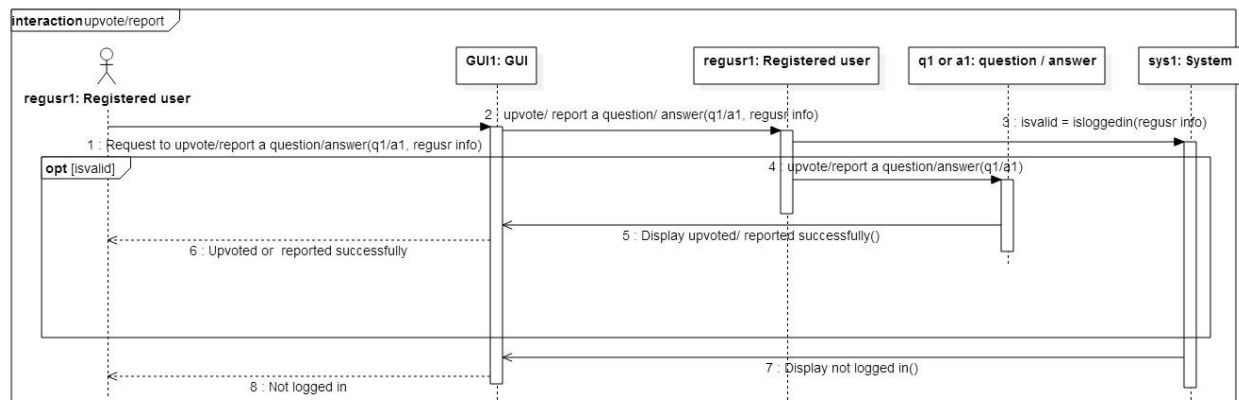
Figure 3-8

3.9   Approve Question Paper/Answer Paper
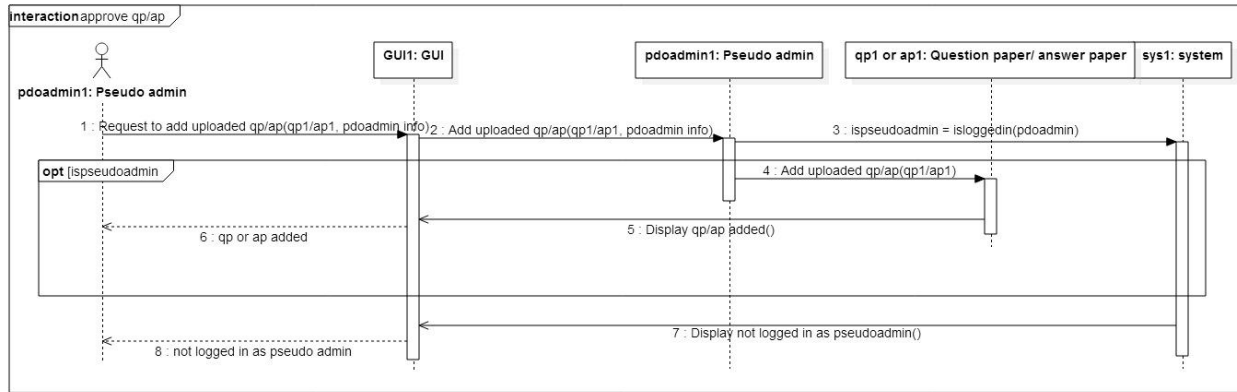
Figure 3-9

3.10 Takedown Question/Answer
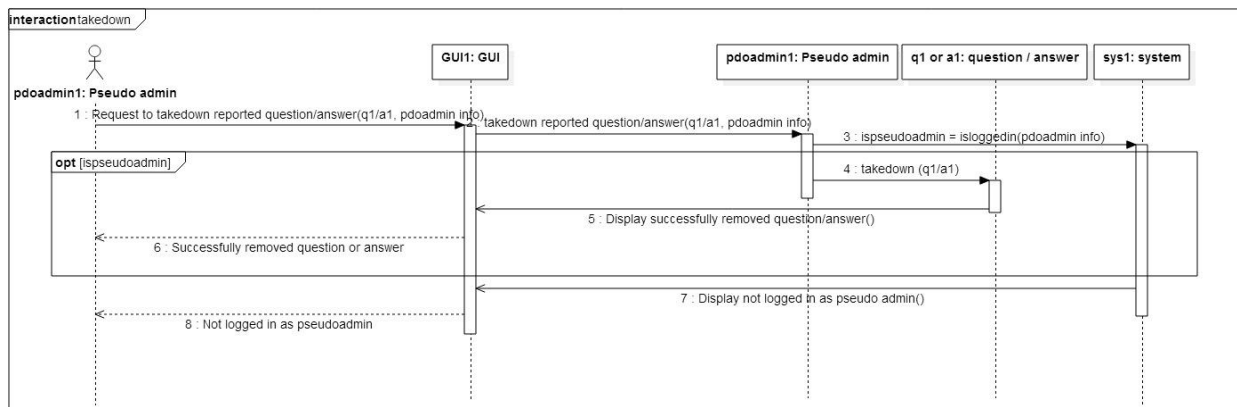
Figure 3-10

3.11 Assign Next PseudoAdmin

Figure 3-11

3.12 Admin

interaction admin

admin1: Admin — GUI1: GUI — admin1: Admin — sys1: System

1 : Request to update(admin info, db, update info)

2 : Update(admin info, db, update info)

3 : is admin = isloggedin(admin info)

opt [is admin]

4 : Do corresponding updates

5 : Display Success/fail in updates()

6 : Success or fail

7 : Display Not loged in as admin
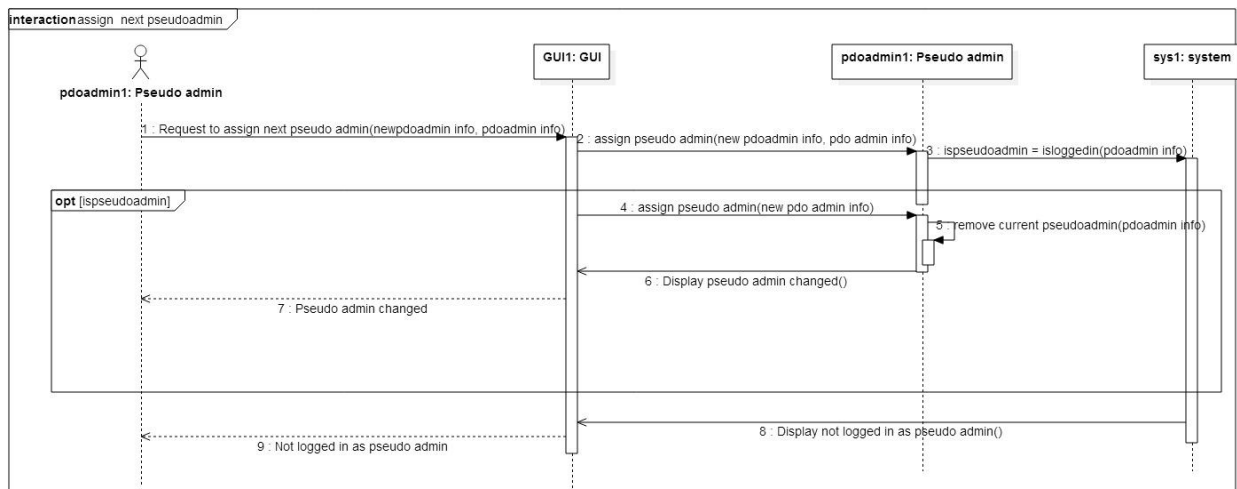
8 : Not logged in as admin
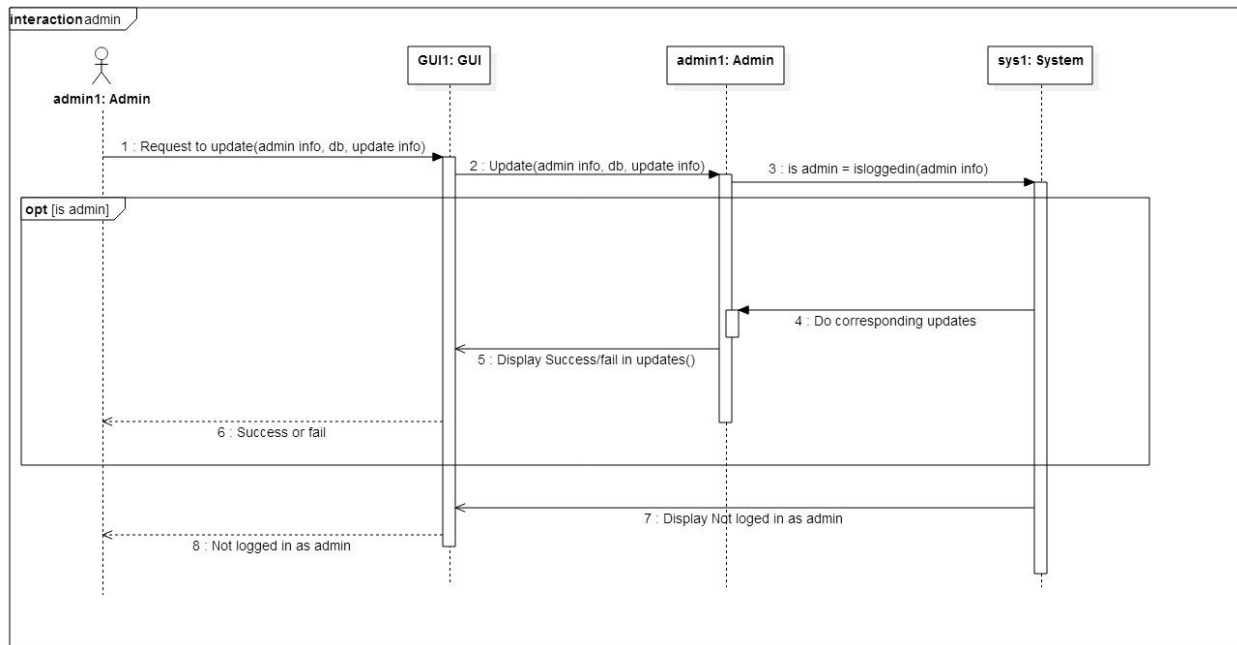
Figure 3-12

4 E-R Diagram
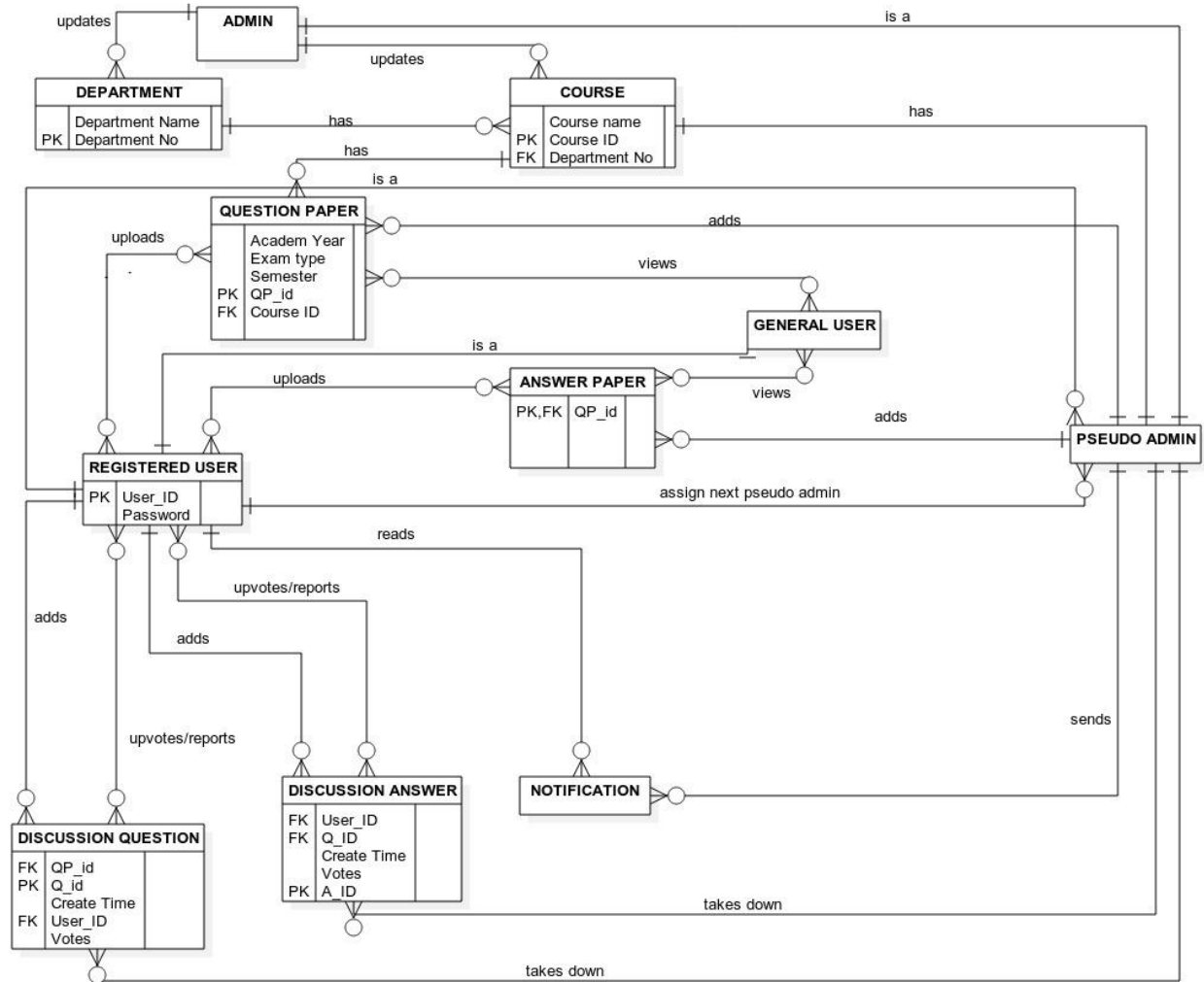
Figure 4-1

5 Activity Diagrams

5.1 View

[Has Question paper link]   [Doesn't have question paperlink]

The question paper is displayed

The discussion with respect to the question paper is also displayed

Figure 5-1

5.2   Download

[Has question paper link]

[Doesn't have questio paper link]

The question paper is downloaded

Figure 5-2

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5.3 Register

Receive Register Request

[already is registered]

[Not registered]

[email nitc.ac.in]

[email not nitc.ac.in]

Link sent to emailid to verify

Figure 5-3

5.4 Verify

Figure 5-4

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5.5   Login

Request to login

[Credentials match]

[Credentials Mismatch]

The registered user is logged in

Error wrong login info

Figure 5-5

5.6   Logout

Request Logout

[Is logged in]

[Not logged in]

The registered user in logged out
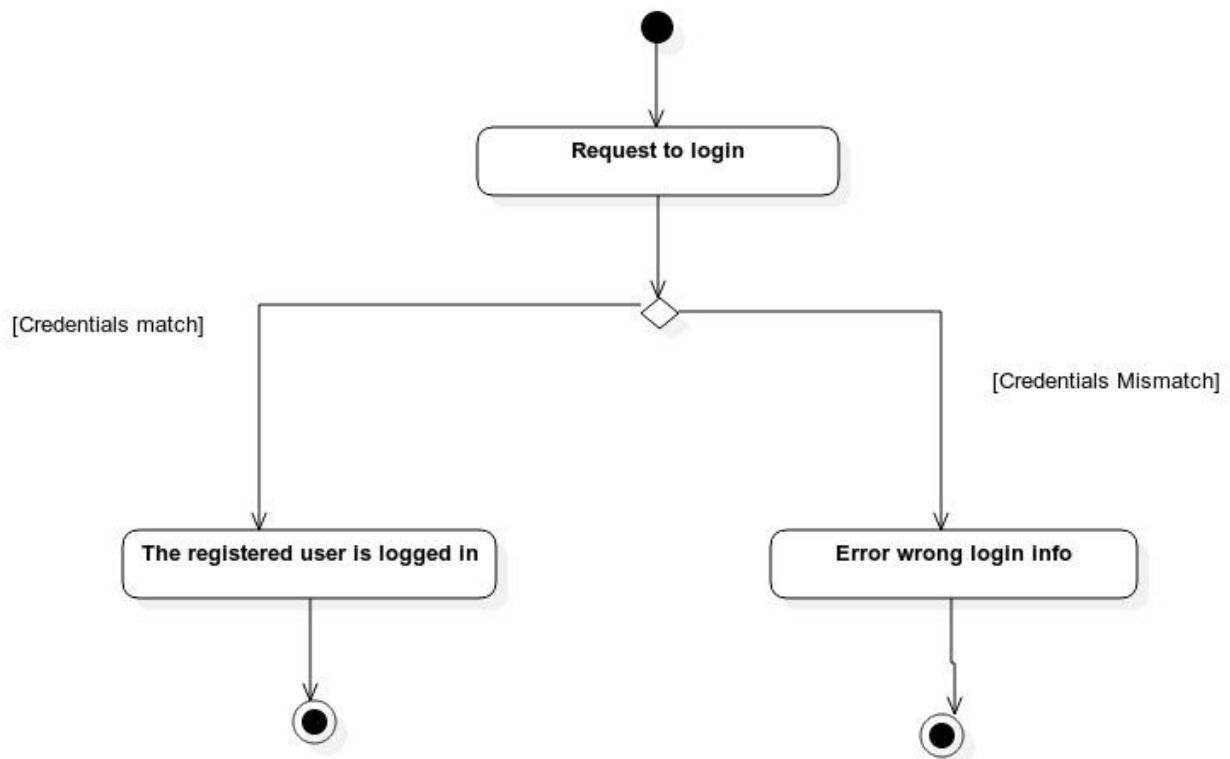
Error Already logged out
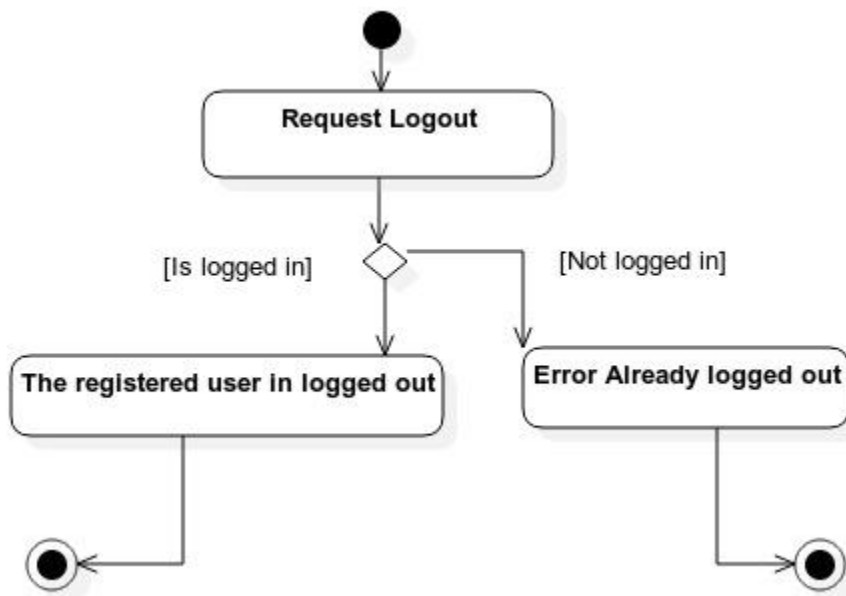
Figure 5-6

5.7 Change Password
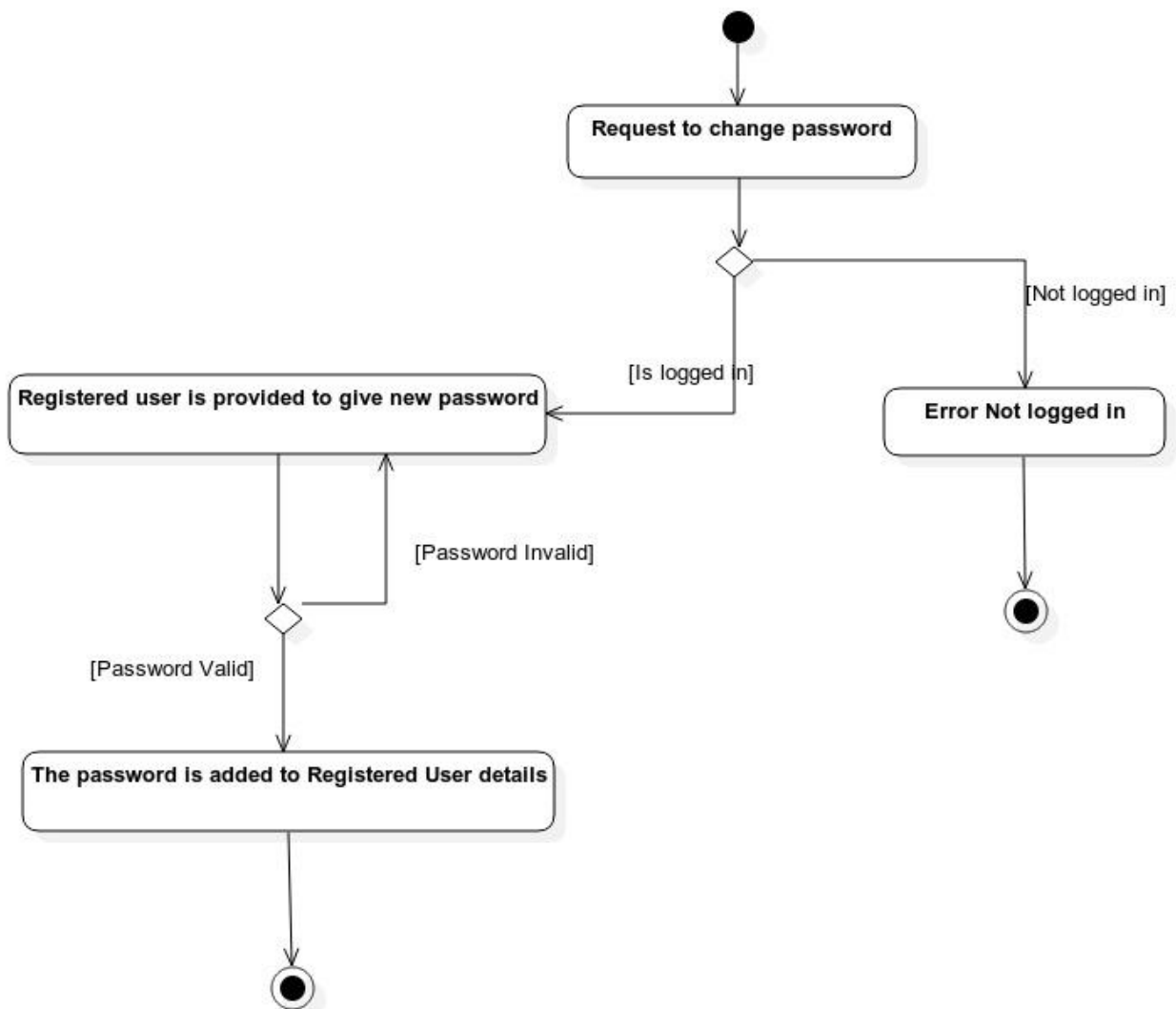
Figure 5-7

5.8   Forgot Password

Figure 5-8

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5.9   Upload Question Paper/ Answer Paper

Request to Upload Question Paper/ Answer paper

[Logged in as Reg user]

[Not logged in as Reg user]

Upload to server for approval
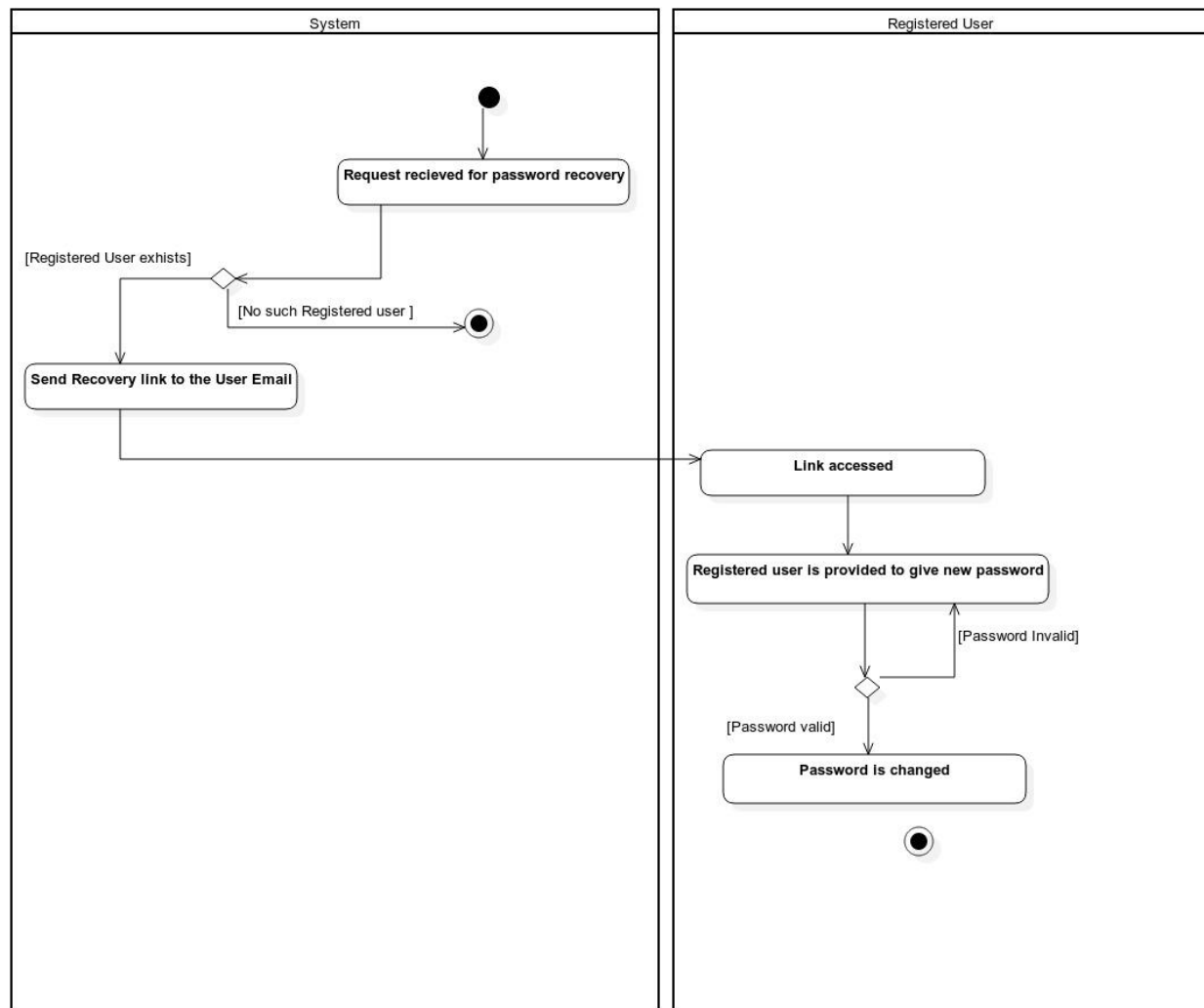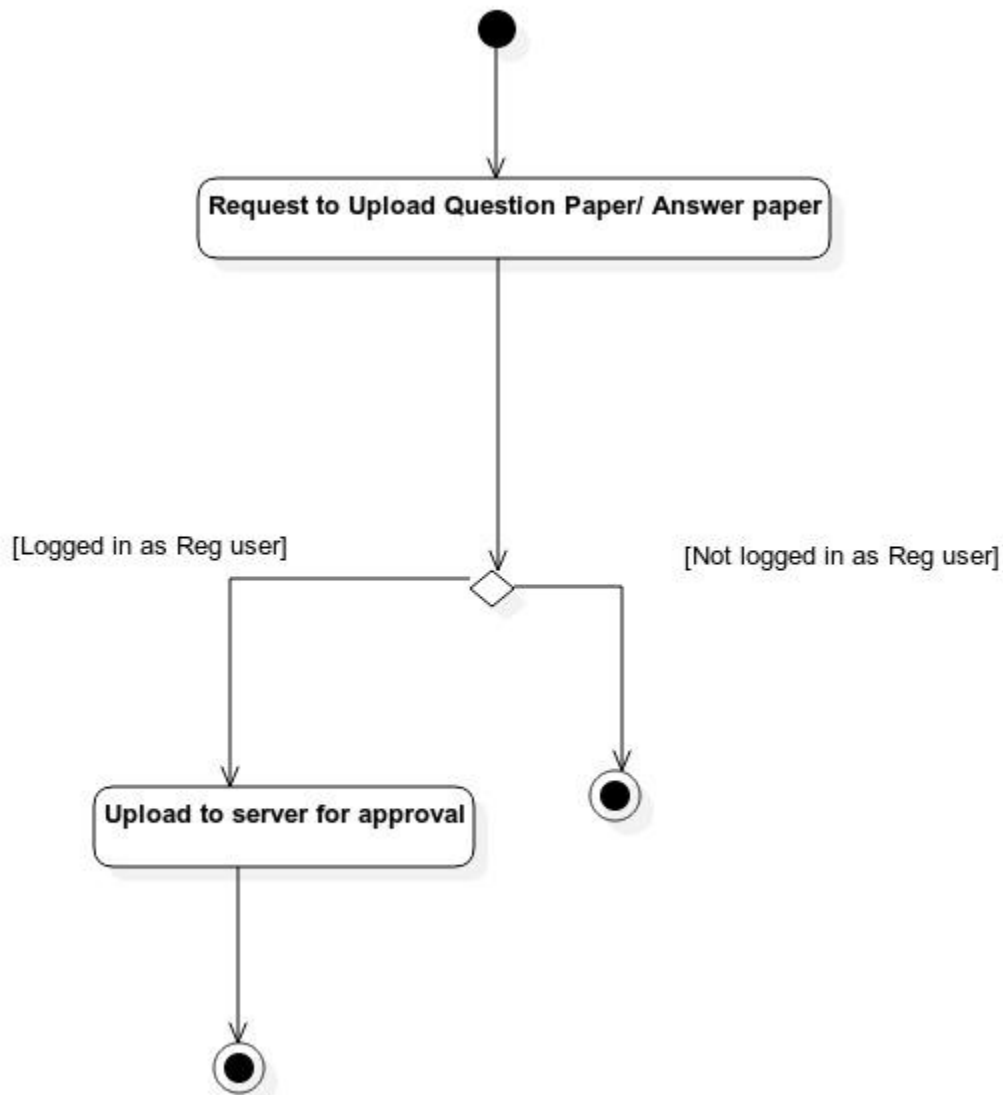
Figure 5-9

5.10 Ask Question/ Reply to a Question

Request to Add question or Reply to question

[Is logged in]

[Not Logged in]

Add question to Forum or Add Answer to corresponding question

Figure 5-10

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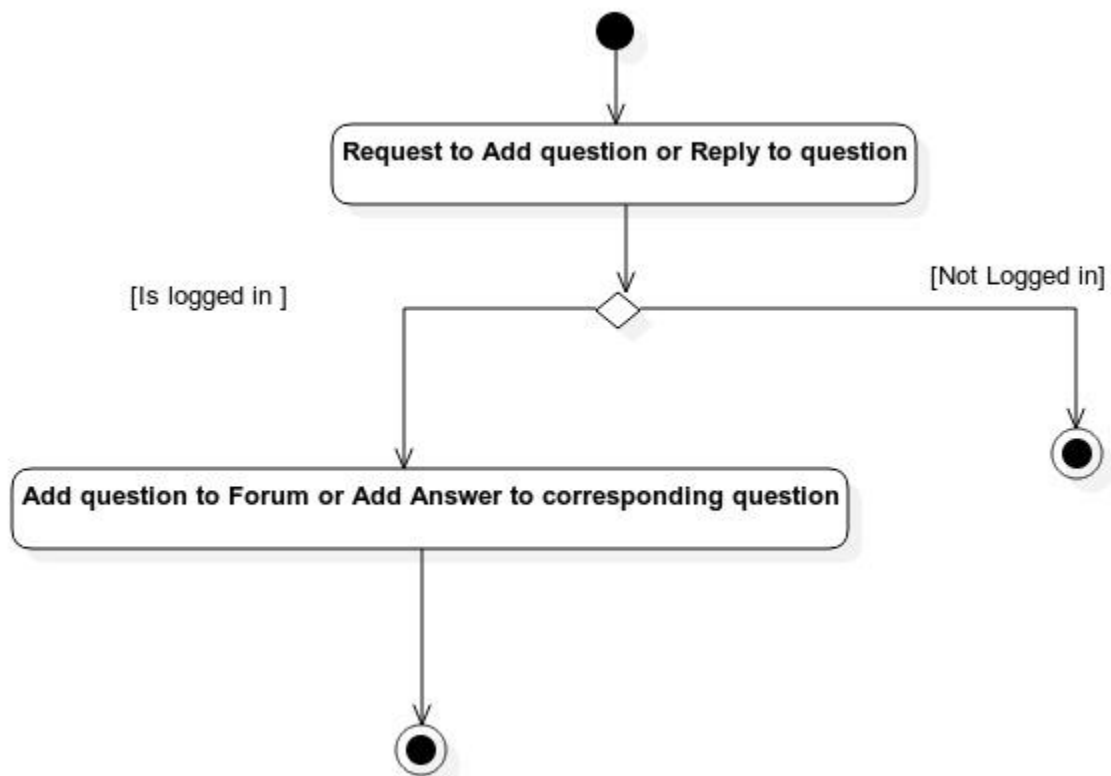
5.11 Upvote/ Report Question/Answer

Request to Upvote or Report Question or Answer

[Is logged in]   [Not logged in]

Change the Discussion forum accordingly
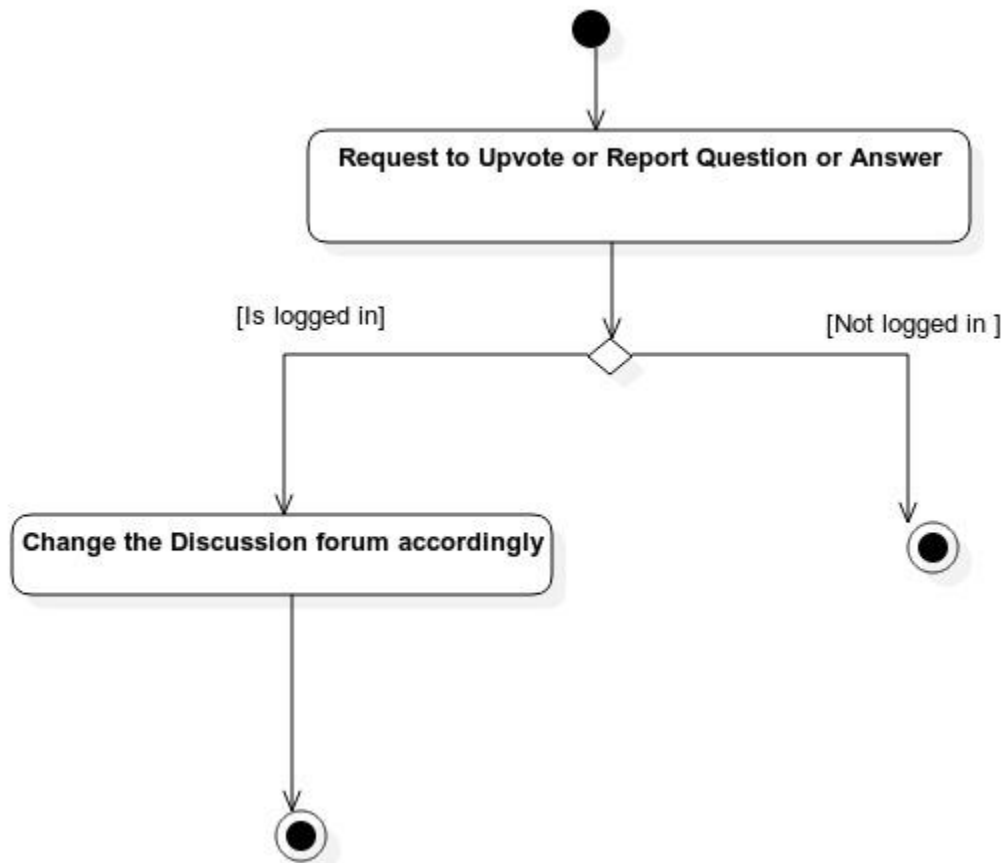
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5.12 Read Notifications
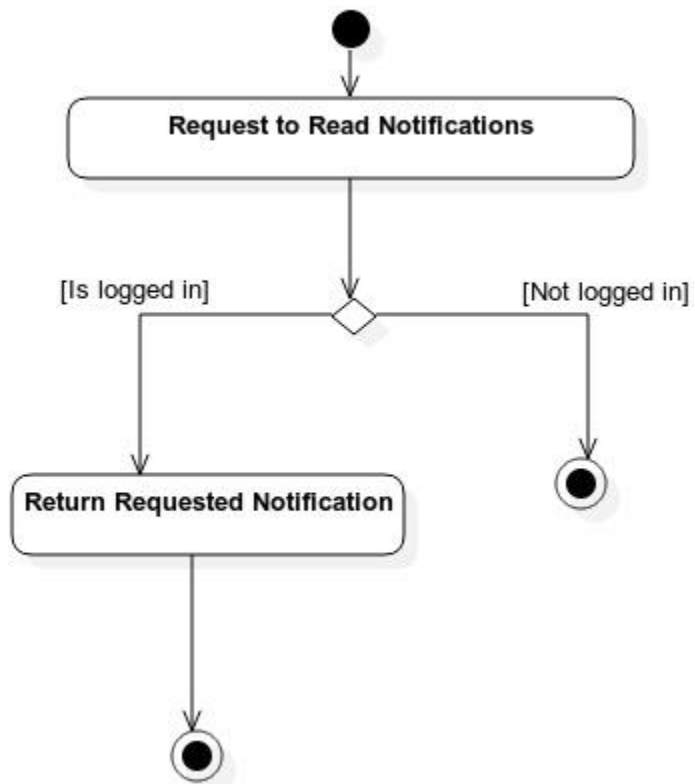
Figure 5-12

5.13 Approve Uploaded Question Paper/Answer Paper
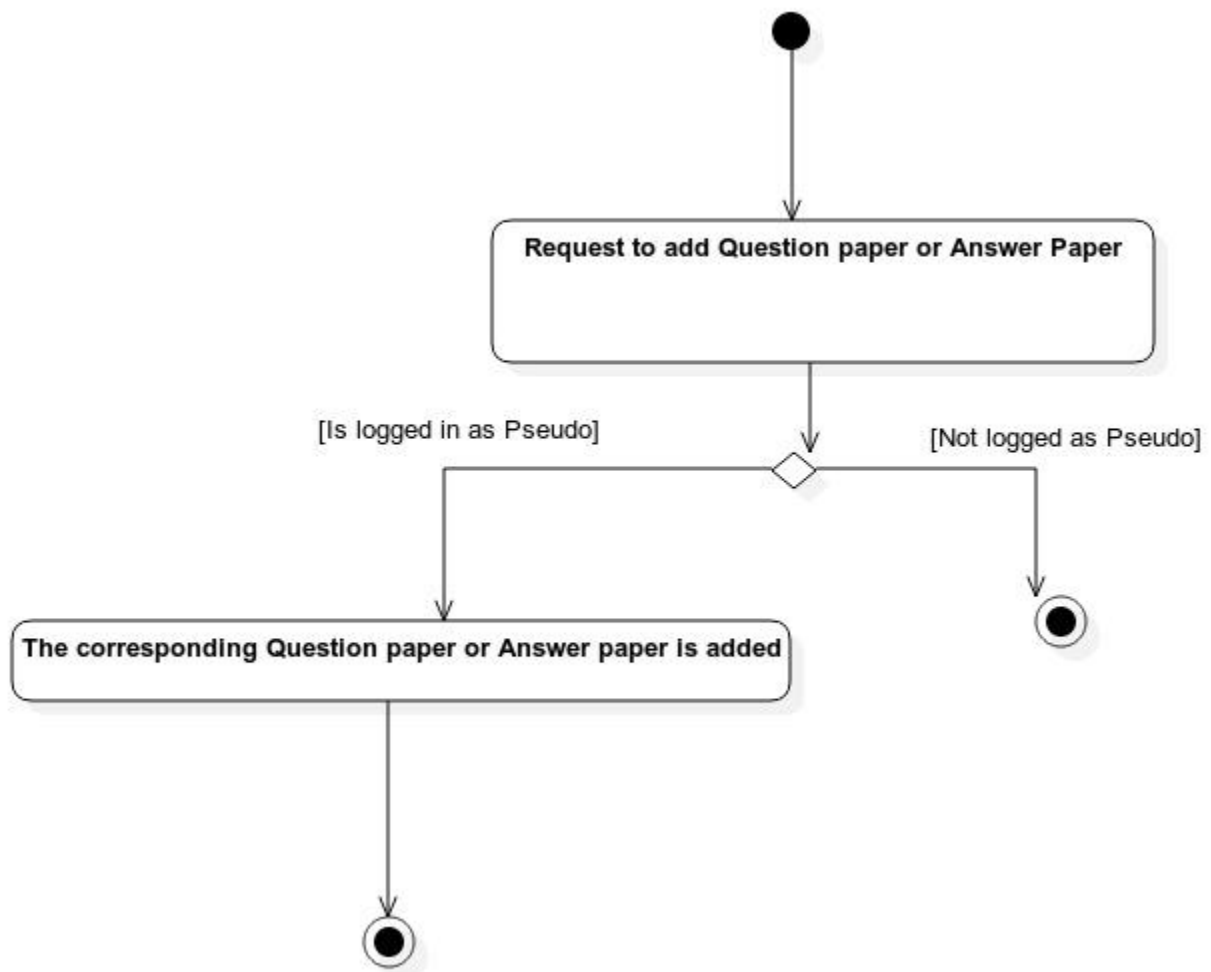
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5.14 Assign Next PseudoAdmin
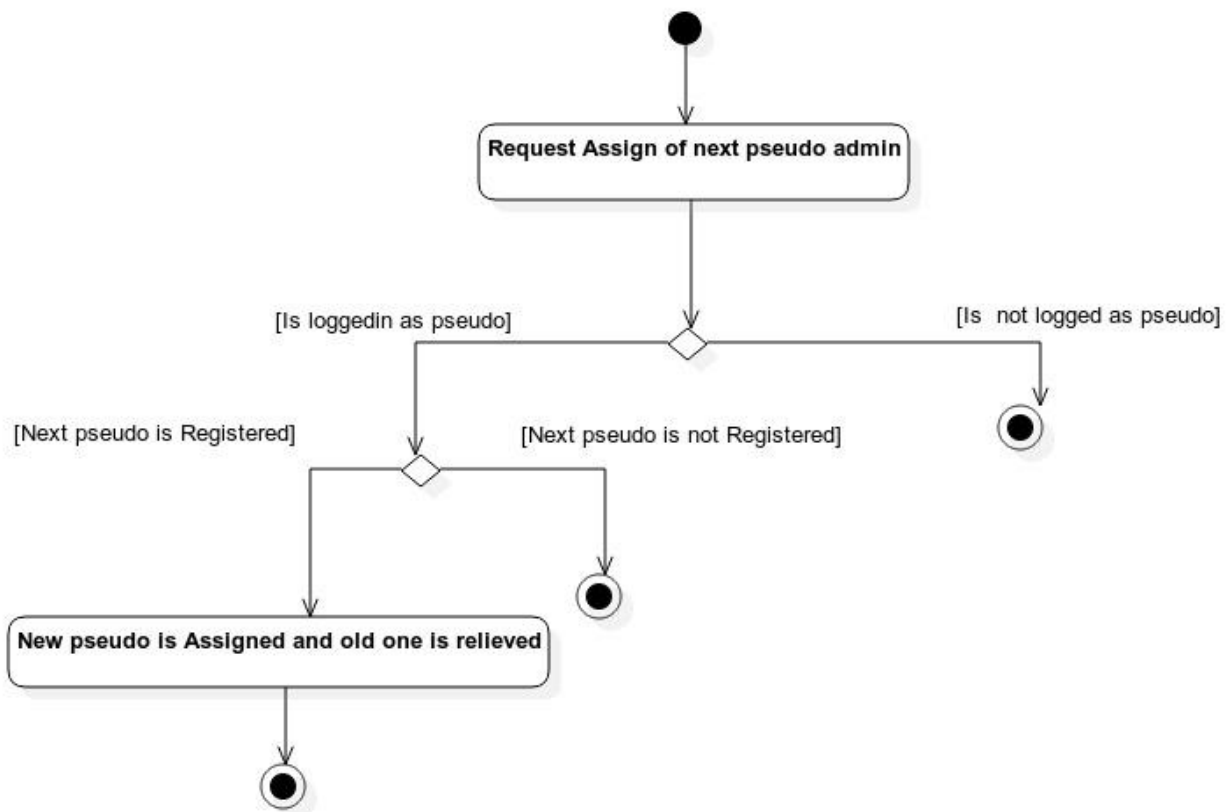
Figure 5-14

5.15 Take Down Question/Answer

Request to take down reported Question or Answer

[Is logged in as Pseudo]   [Not logged in as Pseudo]

[Question or Answer is Reported]   [Question or Answer is not Reported]

Takedown the Respective question or answer from Discussion forum

Figure 5-15
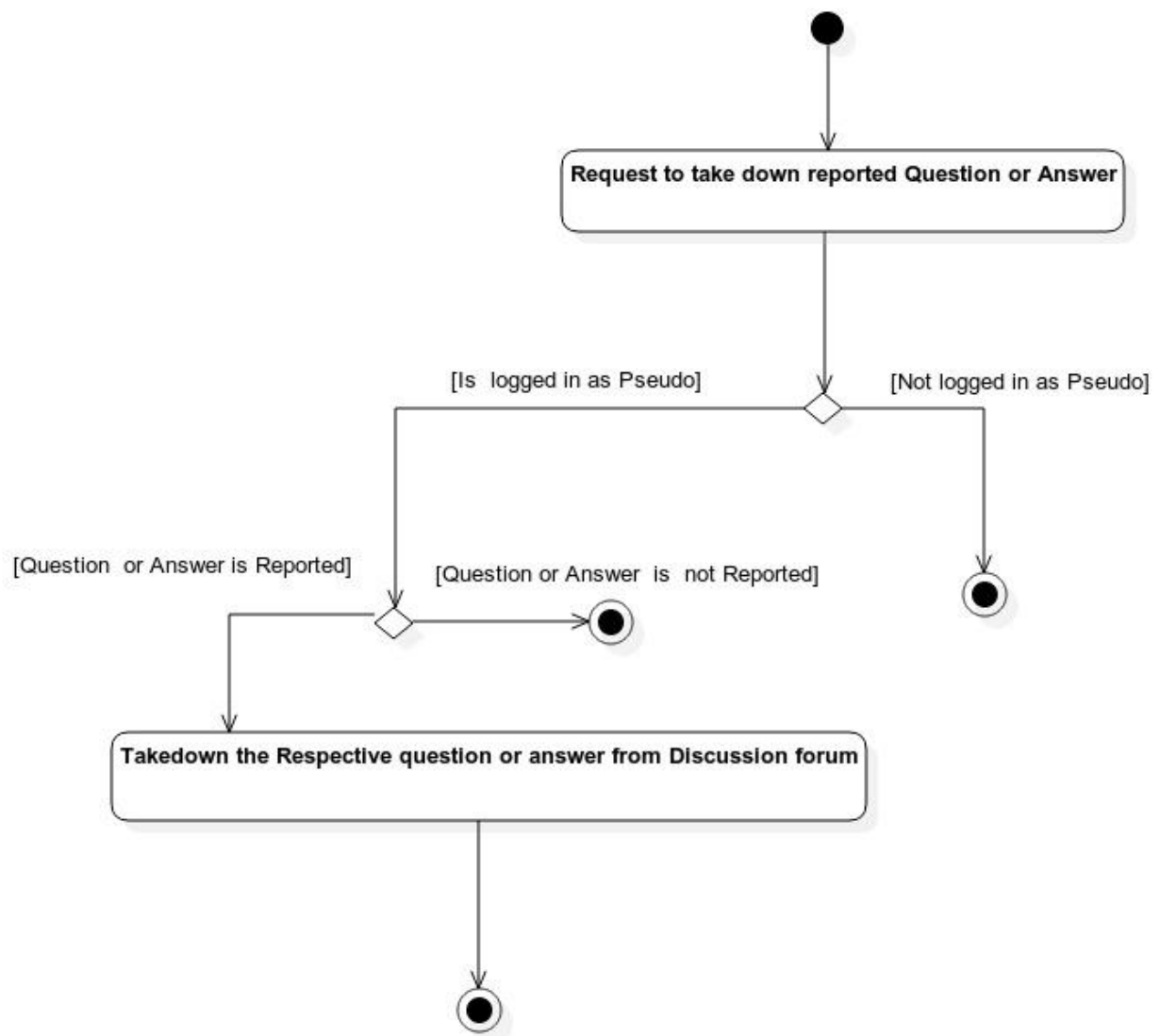
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6 Use Cases

6.1 View/Download/ Advanced Search/ Browse/ Register
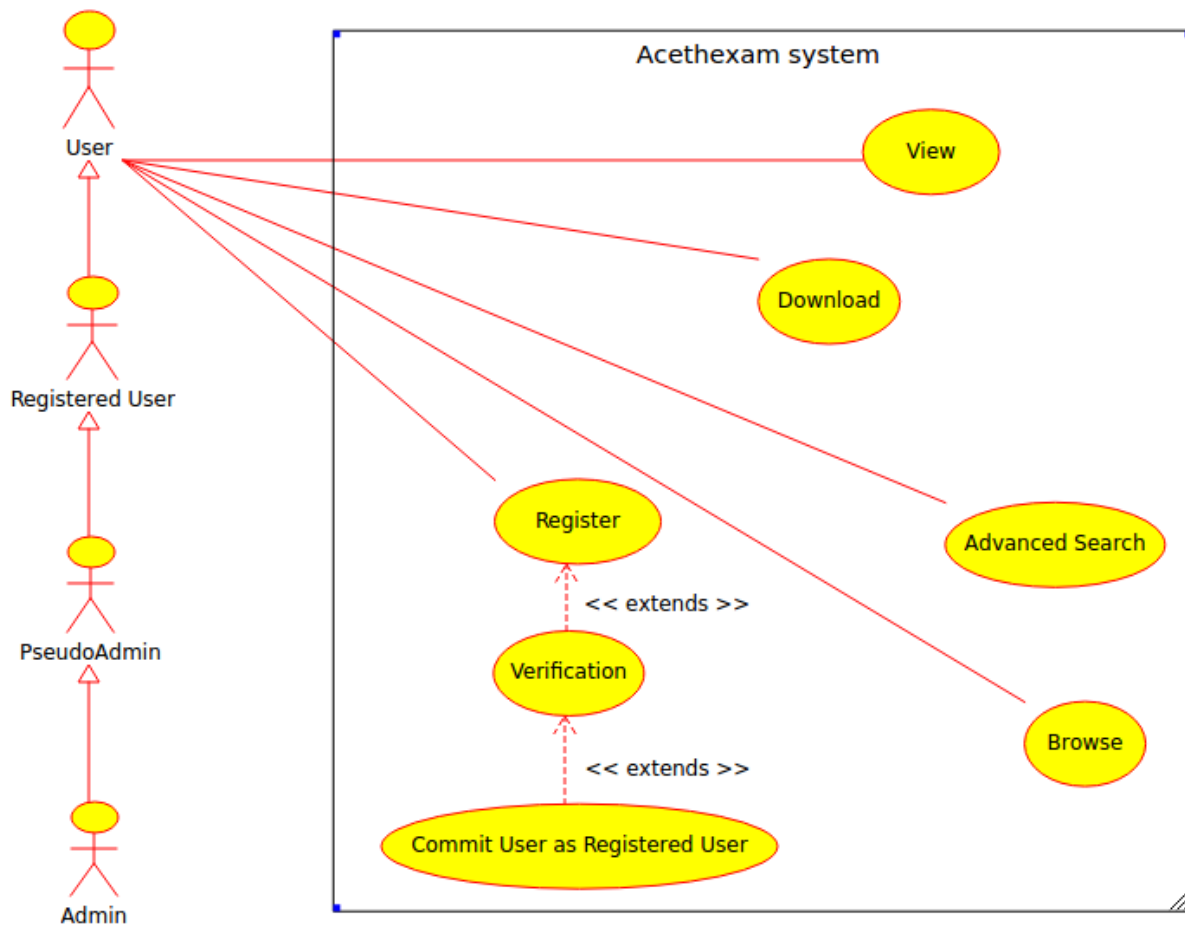
Figure 6-1

6.2 Ask Question/ Reply to a Question/ Upload
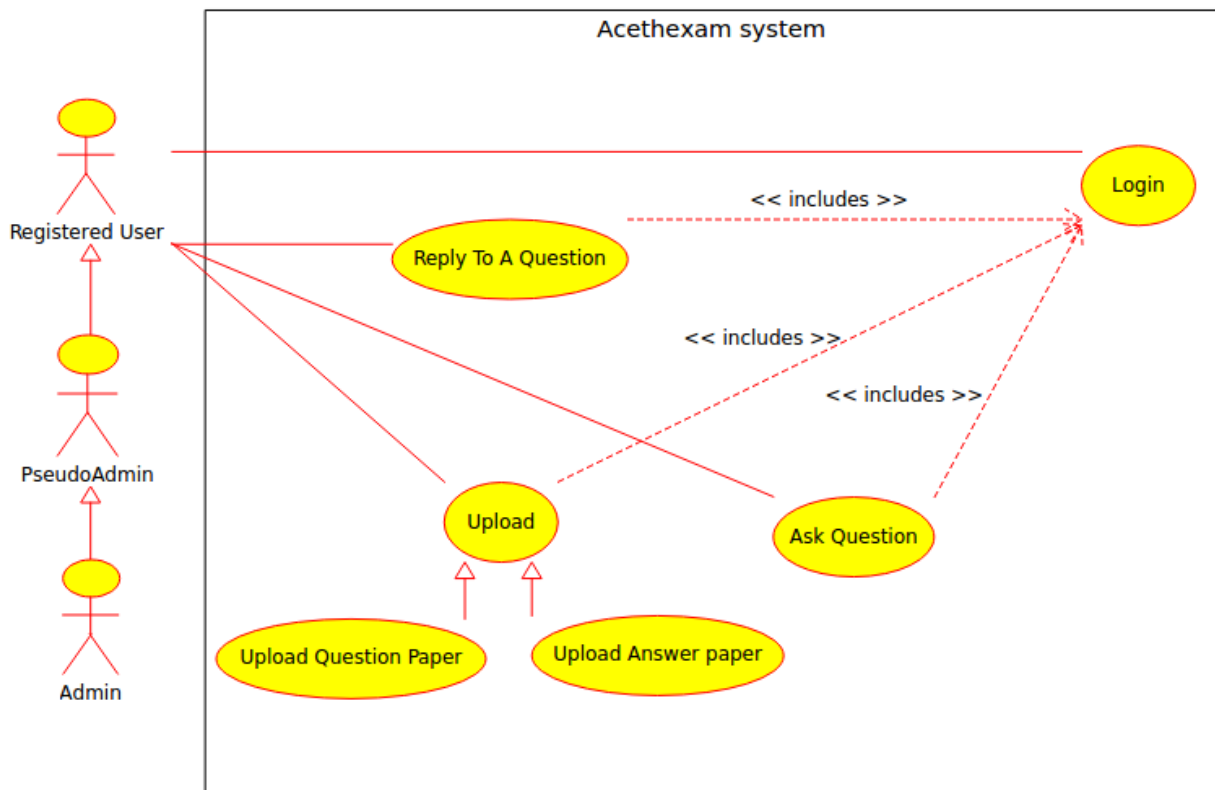
Figure 6-2

6.3 Read Notifications/ Upvote or Report question or Answer
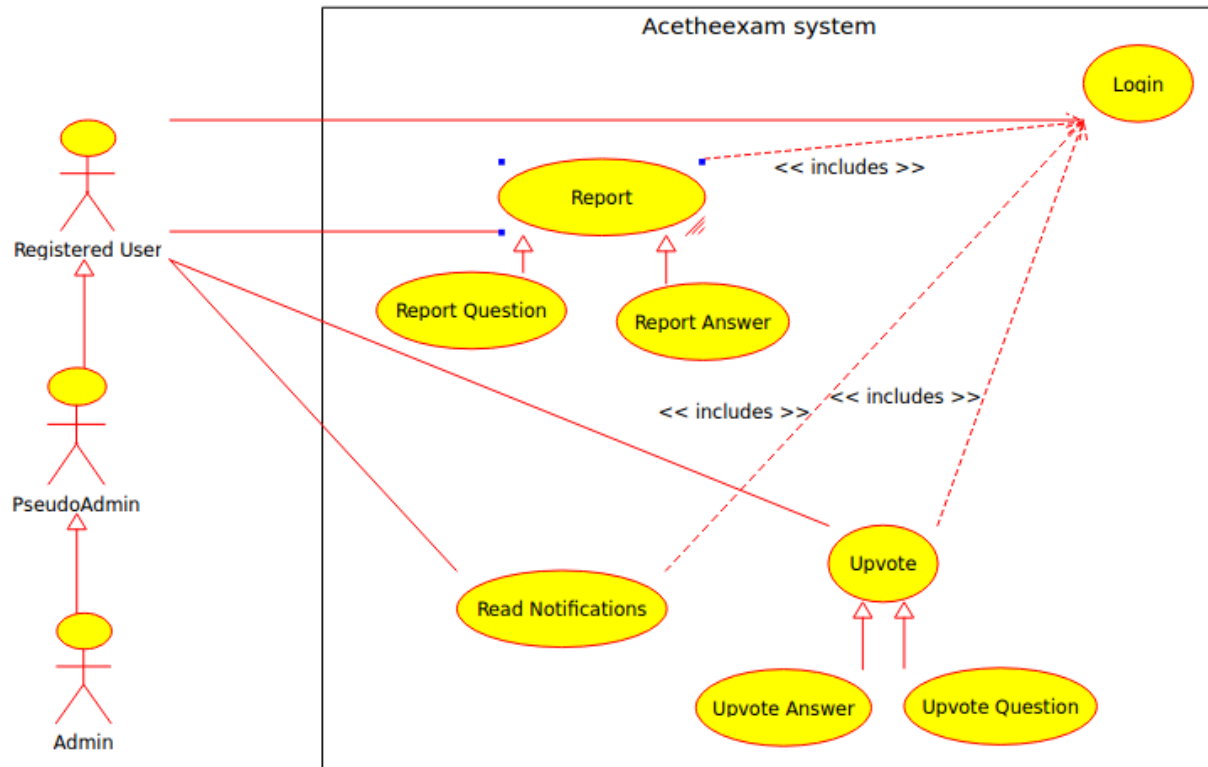
Figure 6-3

6.4 Logout/ Login/ Change Password/ Forgot Password
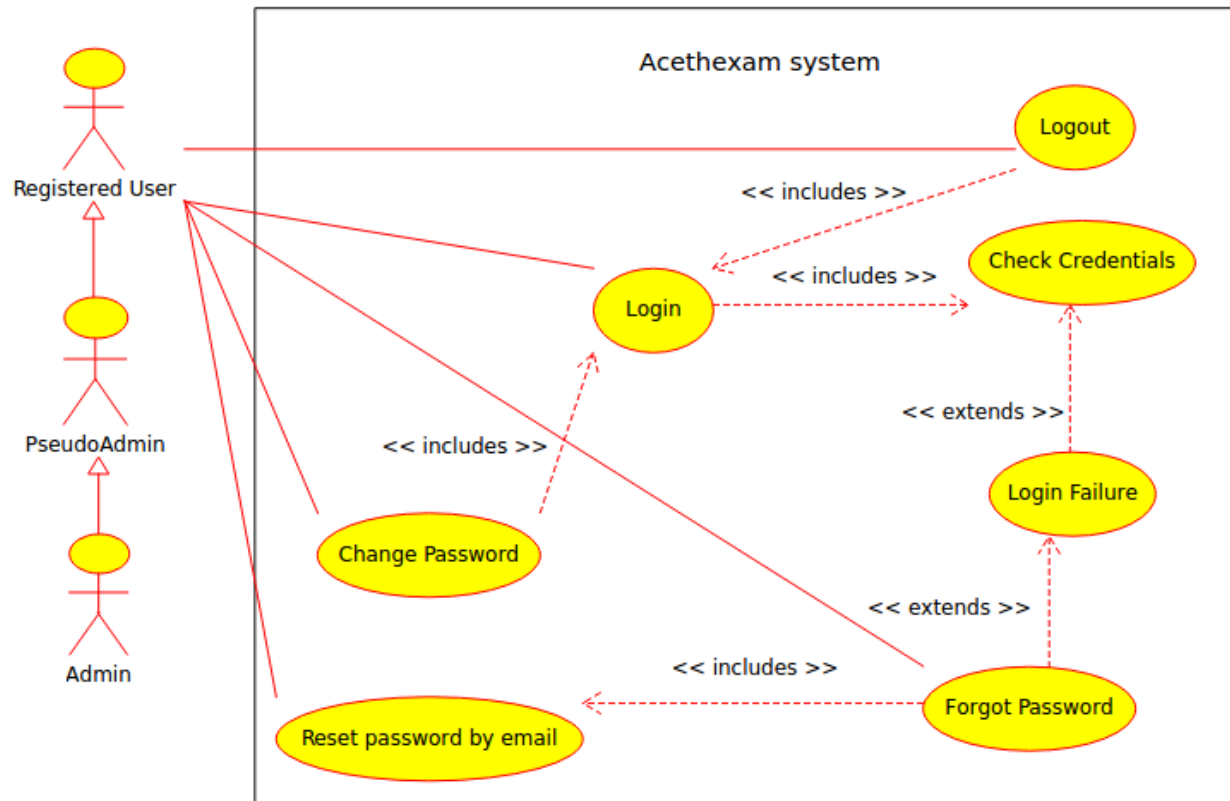
Figure 6-4

6.5   Assign Next PseudoAdmin/ Takedown Question or Answer
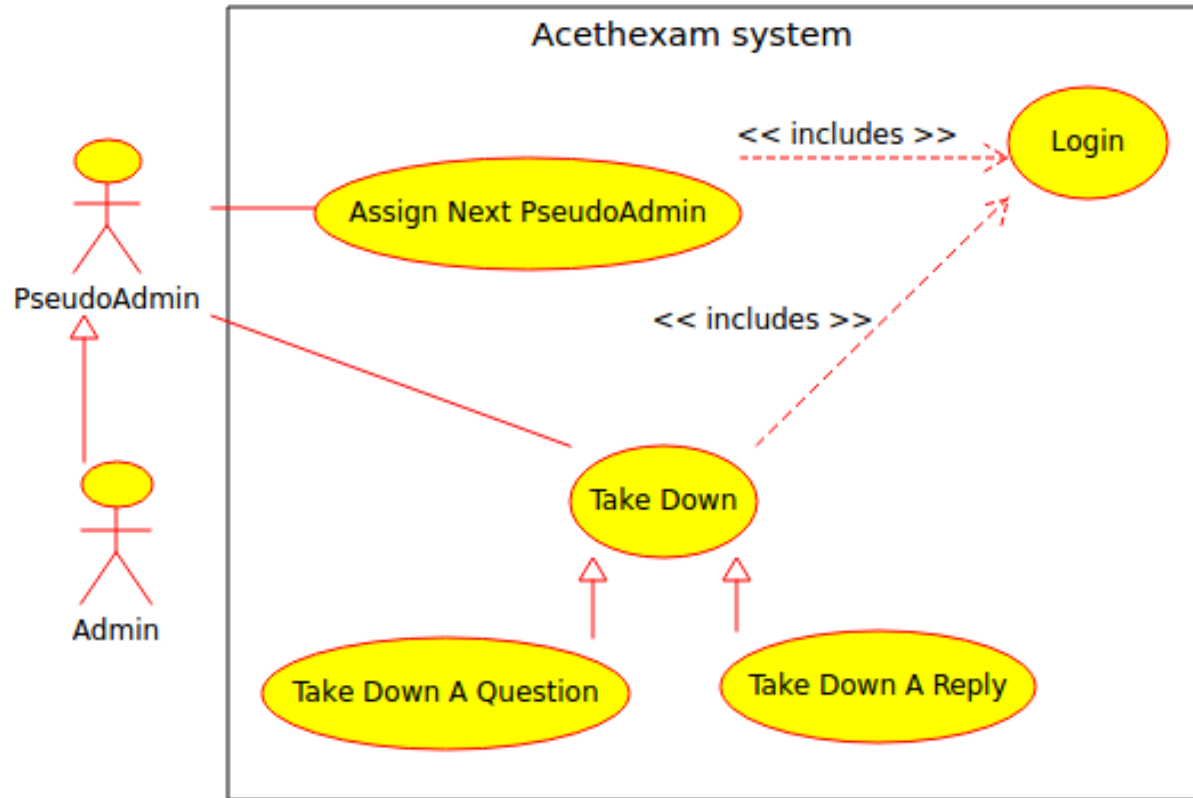
Figure 6-5

6.6 Approve Question Paper or Answer Paper uploaded/Send Notification
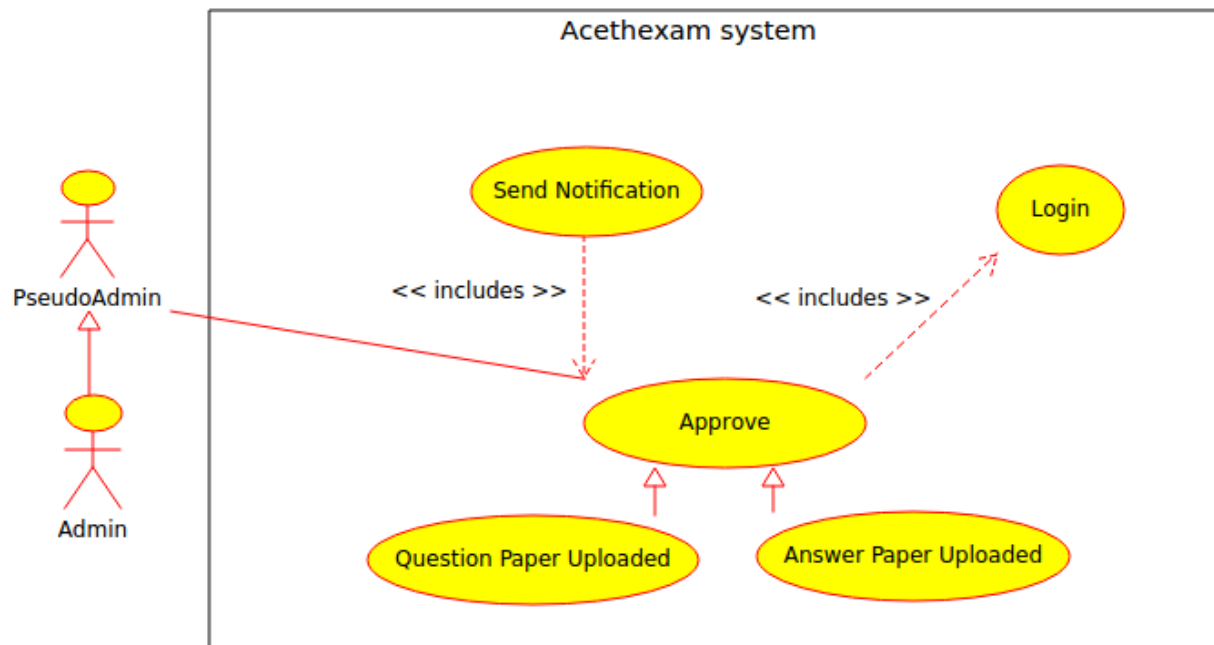
Figure 6-6

6.7 Update Discussion DB/Question Paper DB/Course DB and Assign Pseudo Admin
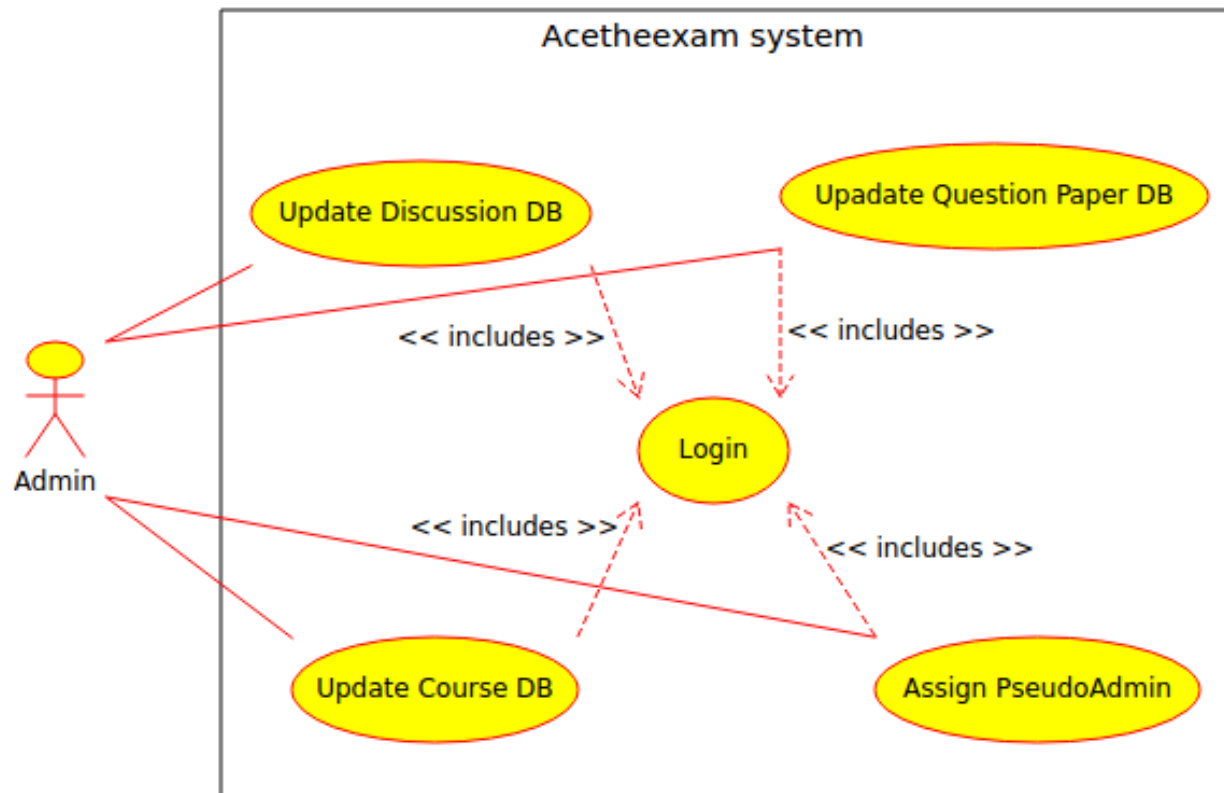
7 Code Generated by Class Diagrams

7.1 Admin.class.php

```php
<?php

class Admin extends Pseudo Admin {

}
```

7.2 Answer Paper.class.php

```php
<?php

class Answer Paper implements General User Interface, Registered User Interface, Pseudo Admin Interface {

    public function __construct() {
    }

    public function Upload Answer Paper() {

    }

    public function Approve Answer Paper() {

    }

    public function Remove Answer Paper() {

    }

    public function Download() {

    }

}
```

Figure 7-2

7.3 Course.class.php

```php
<?php

class Course {

    public function __construct() {
    }

    private $Course Name;

    private $Course ID;

    public function Add Course() {

    }

    public function Remove Course() {

    }

}
```

Figure 7-3

7.4   Department.class.php

```php
1    <?php
2
3    class Department {
4
5        public function __construct() {
6        }
7        private $Department Name;
8
9        private $Department No;
10
11       public function Add Department() {
12
13       }
14       public function Remove Department() {
15
16       }
17
18   }
```

Figure 7-4

7.5   Discussion Answer.class.php

```php
1    <?php
2
3    class Discussion Answer implements Registered User Interface, Pseudo Admin Interface {
4
5        public function __construct() {
6        }
7        private $Time;
8        private $AnswerGiver;
9
10       public function Add Answer() {
11
12       }
13       public function Report Answer() {
14
15       }
16       public function Upvote Answer() {
17
18       }
19       public function Takedown Answer() {
20
21       }
22
23   }
```

Figure 7-5

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7.6 Discussion Question.class.php

```php
1   <?php
2
3   class Discussion Question implements Registered User Interface, Pseudo Admin Interface {
4
5       public function __construct() {
6       }
7       private $Time;
8       private $QuestionAsker;
9       private $Votes;
10
11      public function Add Question() {
12
13      }
14      public function Report Question() {
15
16      }
17      public function Upvote Question() {
18
19      }
20      public function Takedown Question() {
21
22      }
23
24  }
```

Figure 7-6

7.7 General User Interface.interface.php

```php
1   <?php
2
3
4   public interface General User Interface {
5
6       public function View();
7
8       public function Download();
9
10      public function Advance Search();
11
12  }
```

Figure 7-7

7.8 General User.class.php

```php
1   <?php
2
3   class General User {
4
5       public function __construct() {
6       }
7
8       public function Register() {
9
10      }
11
12  }
```

Figure 7-8

7.9   Pseudo Admin Interface.interface.php

```php
<?php

public interface Pseudo Admin Interface {

    public function Approve Question Paper();

    public function Approve Answer Paper();

    public function Takedown Question();

    public function Takedown Answer();

}
```

Figure 7-9

7.10 Pseudo Admin.class.php

```php
<?php

class Pseudo Admin extends Registered User {

    public function Send Notifications() {

    }

    public function Assign Next Pseudo Admin() {

    }

}
```

Figure 7-10

7.11 Question Paper.class.php

```php
<?php

class Question Paper implements General User Interface, General User Interface, Registered User Interface, Pseudo Admin Interface{

    public function __construct() {
    }

    private $Academic Year;
    private $Exam Type;
    private $Semester;

    public function View() {

    }
    public function Upload Question Paper() {

    }
    public function Approve Question Paper() {

    }
    public function Remove Question Paper() {

    }
    public function Download() {

    }
    public function Advance Search() {

    }

}
```

Figure 7-11

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7.12 Registered User Interface.interface.php

```php
1    <?php
2
3    public interface Registered User Interface {
4
5        public function Upload Question Paper();
6        public function Upload Answer Paper();
7        public function Add Question();
8        public function Report Question();
9        public function Upvote Question();
10       public function Add Answer();
11       public function Report Answer();
12       public function Upvote Answer();
13
14   }
```

Figure 7-12

7.13 Registered User.class.php

```php
1    <?php
2
3    class Registered User extends General User {
4
5        public function Login() {
6
7        }
8
9        public function Logout() {
10
11       }
12       public function Forgot Password() {
13
14       }
15       public function Change Password() {
16
17       }
18       public function Read Notifications() {
19
20       }
21
22   }
```

Figure 7-13