References

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Appendix A

Feasibility Study

This feasibility study is a preliminary study undertaken to determine and document project viability. The term feasibility study is also used to refer to the resulting document. These results of study are used to make a decision whether to proceed with the project or table it. If it indeed leads to project being approved, it will (before the real work of the proposed project starts) be used to ascertain the likelihood of the project success. It is an analysis of possible alternative solutions to a problem and a recommendation on the best alternative. It, for example, can decide whether an order processing be carried out by a new system more efficiently than the previous one.

Following aspects are considered under this study;

1. Economics feasibility
2. Technical feasibility
3. Legal feasibility
4. Alternative system
5. Cost benefit analysis

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1. Economic Feasibility

Under the study of economics feasibility following areas was covered.

- Software requirements and cost for them to buy unavailable software.
- Hardware requirement and amount to be spend to unavailable hardware.
- Cost for the training needs and resource person

- **Software requirements and cost to be spend to buy unavailable software**

As per the feasibility study of this project; It was identified that web technology can be used as the solution to develop this project. Following type of web tools and scripts are used in relating to the web technology.

i. HTML or DHTML or CSS technology

ii. Java script – client side scripting language

iii. PHP 5.2.5 server side scripting language.

iv. Apache 2.2 branch web server.

Above software are available under general public license (GPL) in open markets. Therefore SLSI has to spend only for the compact disks in which software are included, not for the licenses. In addition to this software my SQL 5.1 is required as the database management tools. SLSI does not need to spend for this, because this software is already available. Also other packages required to present the project such as Microsoft office tools, flash, Adobe Photoshop and Rational Rose.

- **Hardware requirement and amount to be spend to unavailable hardware**

Each section requires at least one computer as work station and twenty eight computers are required totally in following way;

DG Office – 01 Number

DDG Office 1 – 01 Number

DDG Office 2 – 01 Number

Marketing Division - 01 Number

System Certification Division – 02 Numbers

Engineering Division – 02 Numbers

Standardization Division – 02 Numbers

Quality Assurance Division – 04 Numbers

Training Division – 02 Numbers

Finance Division – 01 Number

IT unit – 01 Number

Library and Information Section – 01 Number

Administration Division – 01 Number

Product Certification Division – 02 Numbers

Metrology Division – 02 Numbers

Director Laboratory – 01 Number

Material Laboratory – 01 Number

Chemical Laboratory – 01 Number

Micro Biology Laboratory – 01 Number

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In addition to those requirements server machine and dedicated machine for programming are required. SLSI already has more than this requirement. Hence SLSI does not need to spend for hardware requirements.

- **Cost for training needs and resource person**

Most of the technical officers in SLSI are science graduates. They are not alliance to the computer environment. Therefore on going training is enough after implementing the project. SLSI can survive from the arranging of training. Also this project is to implement using internal human resources. Then cost is not problem for the allocation of resource person also.

SLSI is the good income generator. They earn money dealing with the top business men in Sri Lanka as well as foreign countries. Product certification division as well as other divisions has already enough resources other than the few. Therefore, SLSI has capability to provide funds to purchase necessary software and few other resources.

2 Technical Feasibility

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Under this technical feasibility study, followings are considered to check whether this project is technically viable to continue.

1. development risk
2. resource availability
3. required knowledge availability

- **Development Risk**

Organizational risk, product risk and project risk may affect to the continuation of this project.

Organizational Risk

As the organizational risk, unacceptability of software product by the employees of SLSI can be affected to this project because of reluctant of accepting the new changes suddenly. This can be avoided by pursuing the relevant officers in organization.

Project Risk and product Risk

Learning curve of technical matters (My SQL, PHP etc.), developers' experiences and skills affect to the speed of the project and due to this reason completion date of this project will not be an achievable one. This risk is called schedule slips and it can be minimized by splitting the project into manageable small cycles. Moreover negotiation with SLSI is essential otherwise organization may think that the project not in manageable level of developers.

Other kind of project risk is the failure of software and hardware. It may be failure of server machine or failure of hard disk of the dedicated machine or failure of application software or open source software. Keeping installation CDs for software, taking backups from each cycles of software project and taking security precautions for software and hardware damages these failures can be avoided or prevented successfully.

The size of the system which is to be selected to develop under this project has been underestimated due to lack of experience of developer. But this project is done under consultation or supervision of experts. Also requirement analysis is reviewed by time to time with the product certification division. Therefore, there should not be possibility to happen like that.

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Also there may be some several changes of the requirements after elicitation and analysis phase. At necessary points, if traceability of information is done properly, hiding of information can be minimized.

Another major problem which can be found in this software project is system sour. Though system goes into production, the defect rate and time taken to obtain the output may be so high. If the quality of the product is closely monitored at each and every cycle of the development stage this can overcome.

- **Resource availability**

This resource availability can be considered as software and availability hardware availability

Following type of software are available in SLSI;

Apache 2.2 branch web server	Open Source
MySql 5.1 database management system software	Open Source
PHP 5.2.5 server side scripting	Open Source
JavaScript client side scripting	Open Source
MS Windows server 2003	Licensed
MS Windows XP professional 5.1 for the clients	Licensed
Rational Rose software for design activities	Not License
MS word for preparing documents	Not License
MS Power point for presentation	Not License
Adobe photo shop CS 2 for graphic preparation	Not License
Macromedia Flash for animation	Not License

Hardware availability of SLSI are as follows;

Location	Number of Computers	Operating System
Systems Certification	10	Win XP
Product Certification	3	Win XP
Quality Assurance Department	14	Win XP
Administration	03	Win XP
Standardization	14	Win XP
Laboratory	22	Win XP

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Two IBM Netfinity 3000 servers – Primary Domain Controller and Backup server

- **Required Knowledge Availability**

The developer should have sound knowledge about the basic software tools which is going to be used in this project. Technically Know-How;the developer gathered the knowledge from M.Sc in Information technology program conducted by at IT Faculty of University of Moratuwa covering following areas;

Apache 2.2 branch web server

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MySql 5.1 database management software

PHP 5.2.5 server side scripting

JavaScript client side scripting

Rational Rose software for design activities

Adobe photo shop CS 2 for graphic preparation

Macromedia Flash for animation

HTML / DHTML / CSS

Object Oriented Analysis & Design

Software Project Management

3 Legal Feasibility

License of software

For this proposed software project at SLSI open source software are used under general product license. So there is no need to spend on purchasing license from the venders.

Ownership of the software product

Ownership of the copyright license of this software product will be transferred at moment of sign-off the project.

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Agreement

According to the agreement made between SLSI and developer confidential documents and resources obtained from the SLSI should submit at the moment of signoff the project. Also source code developed under this software project should be transferred. When trial run is ready test within the system, proper approval is required to be obtained from the organization.

4 Alternative Systems

SLSI has already database system for the auditors' data which is handled by the product certification division. But it has to be updated taking information from administration division. Also it is still limited to the single user.

5 Cost Benefit Analyses

- **Tangible Costs**

There is no any tangible cost to be spent on this project, since all resources are within the organization.

- **One Time Cost**

Since all information required for the product certification division can be retrieved at the division itself, lot of time can be saved and there is a possibility to transfer the lot of manual activities to the instant software operations by saving time.

- **Intangible Benefits**

Since director can get progress report of the division, she will enjoy the benefit.

Project officers will receive the audit plans on time and they will not suffer the delay on arranging audits.

Customer will be happy by getting the services on time in systematic way.

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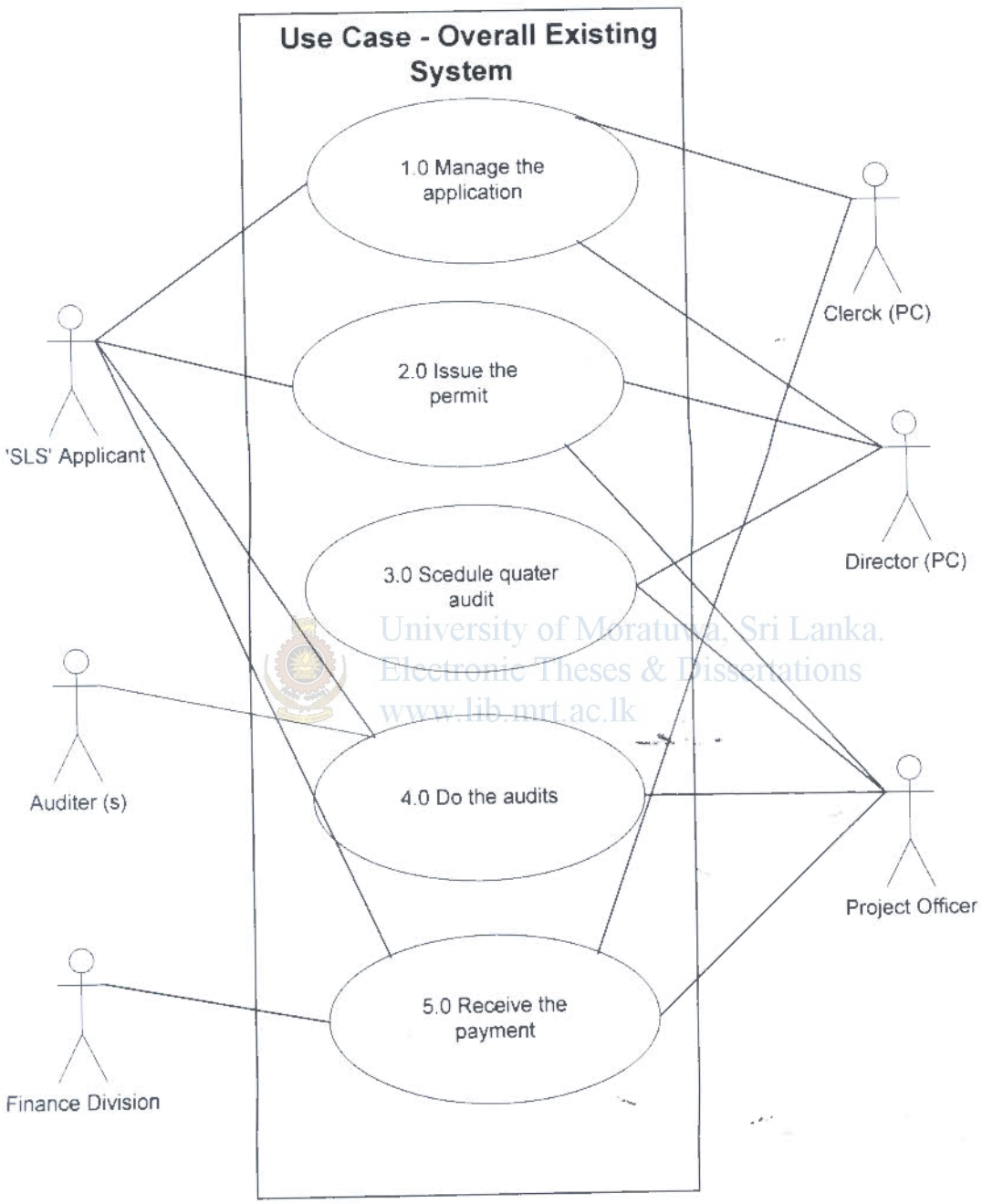
Appendix B

Use Case Diagrams for Existing System



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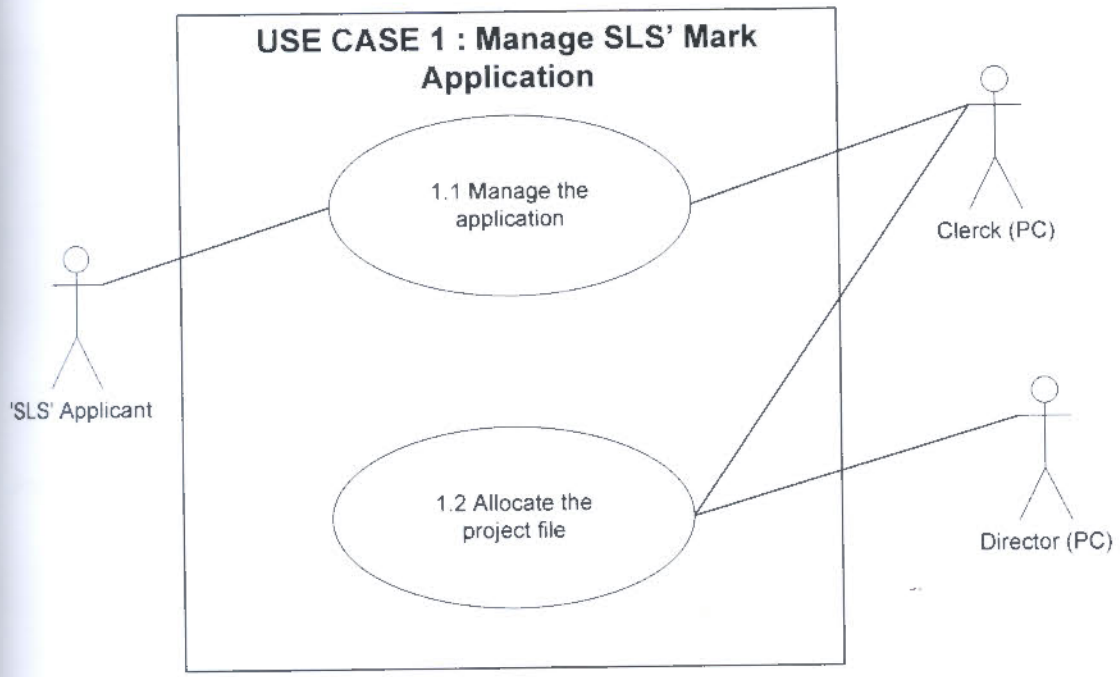

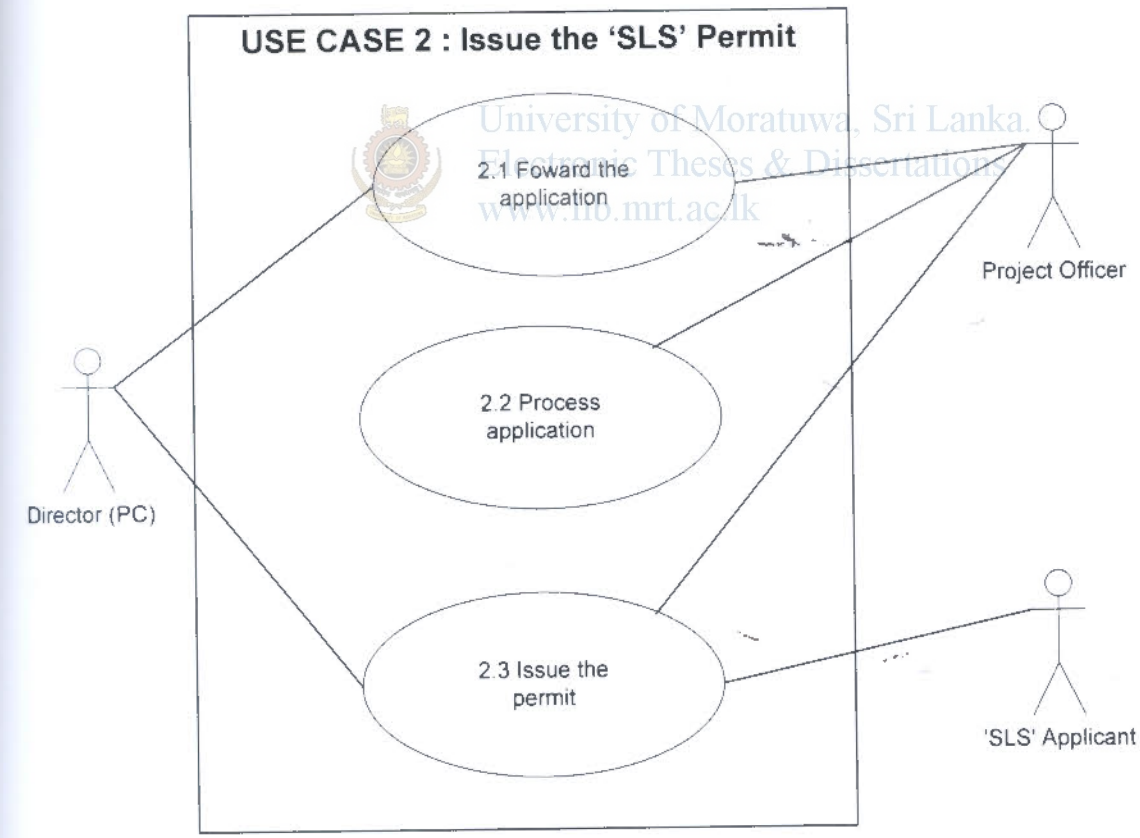

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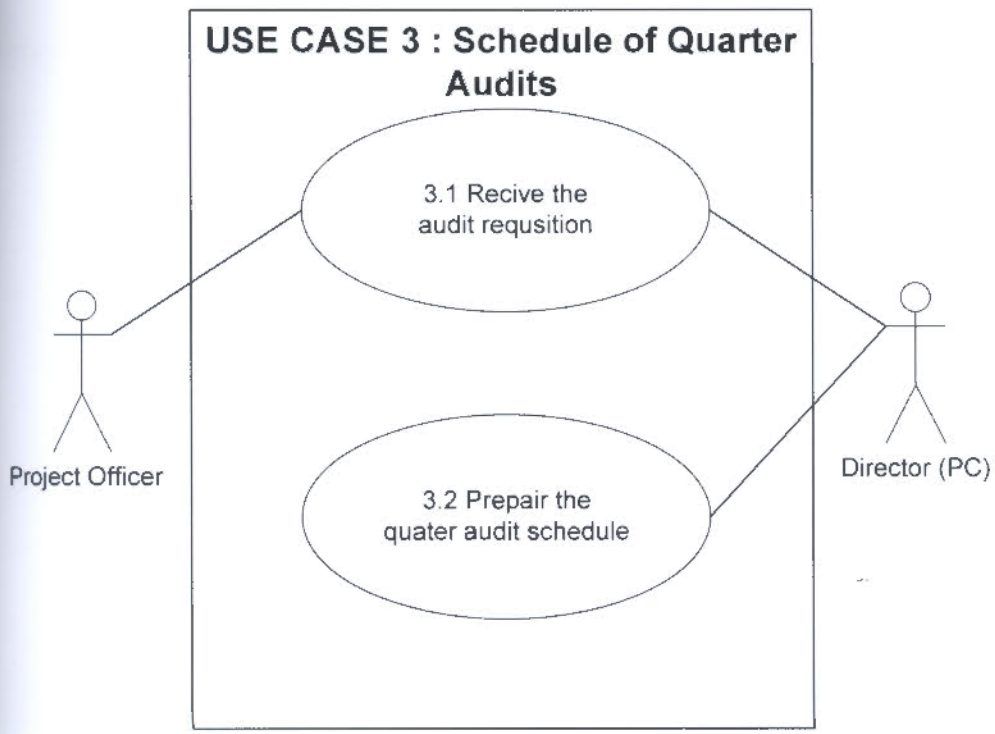

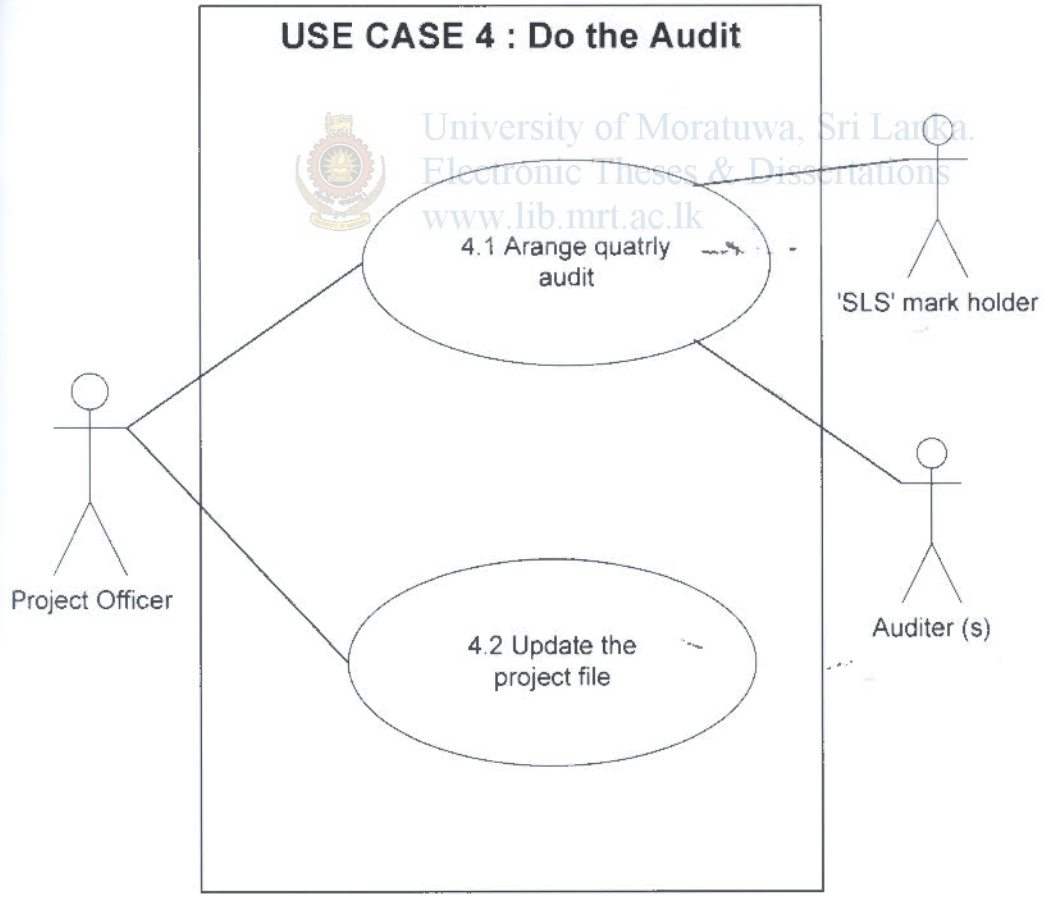

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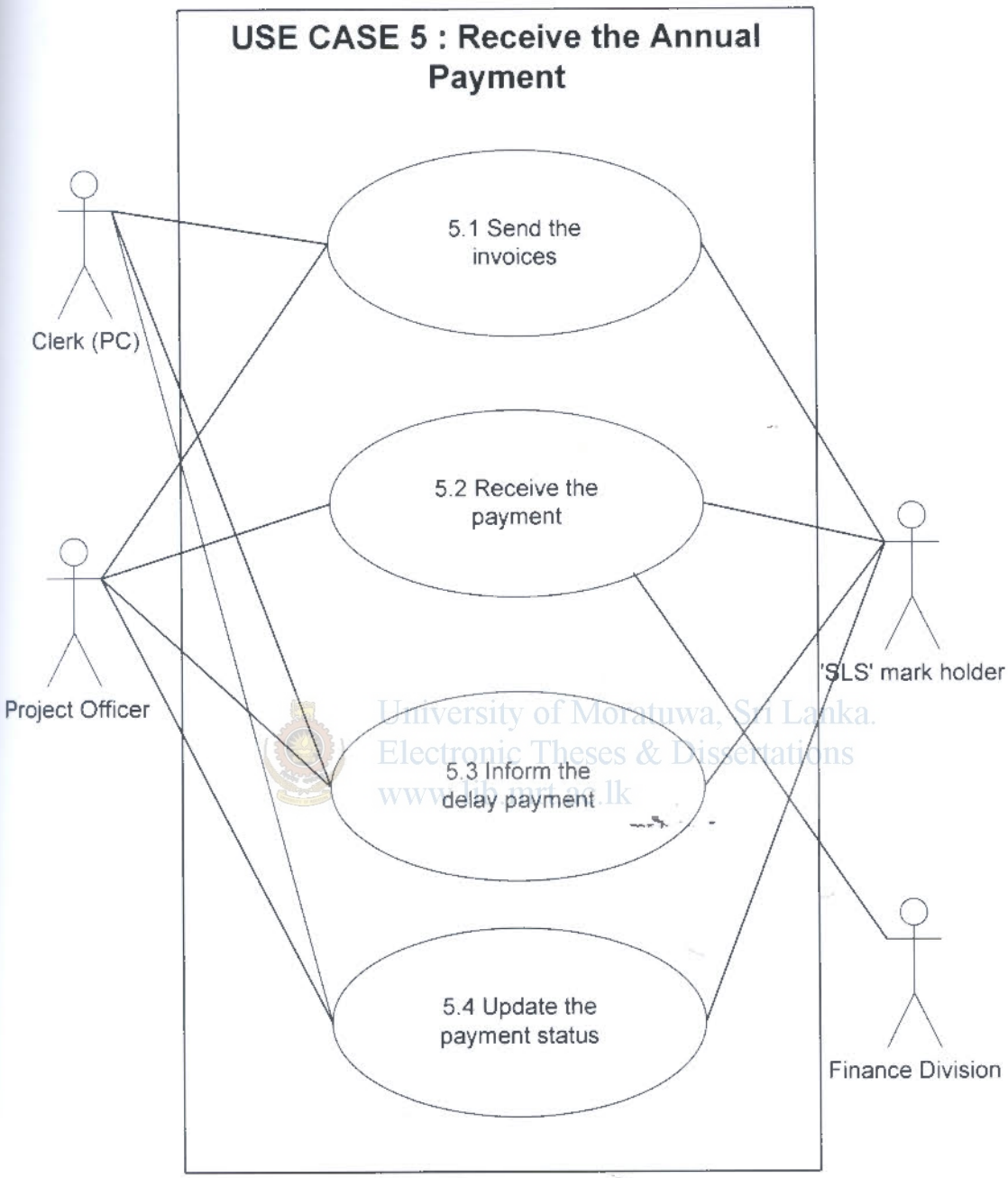

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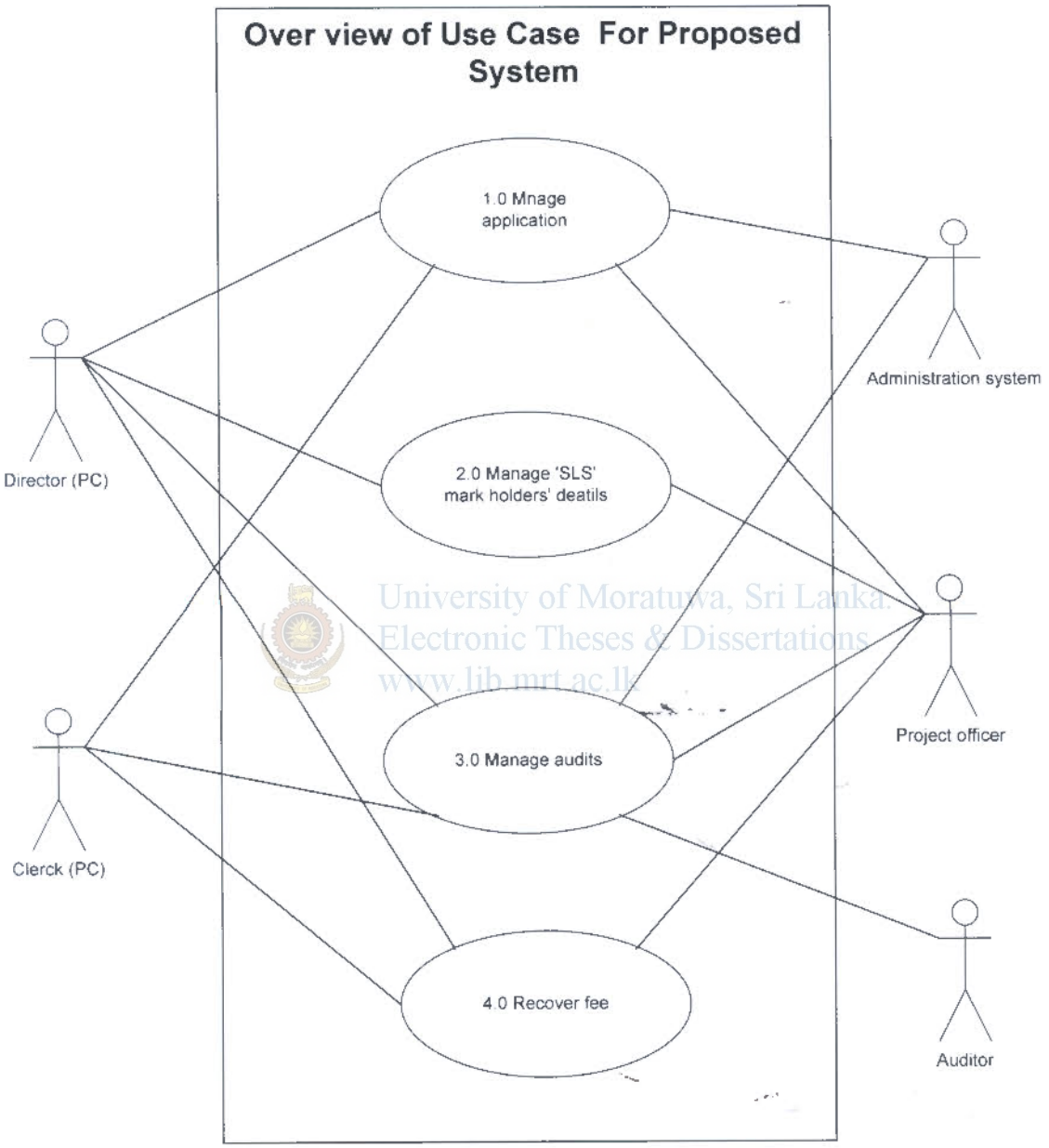
Appendix C

Use Case, Activity, Sequence, Class and ER Diagrams for Proposed System



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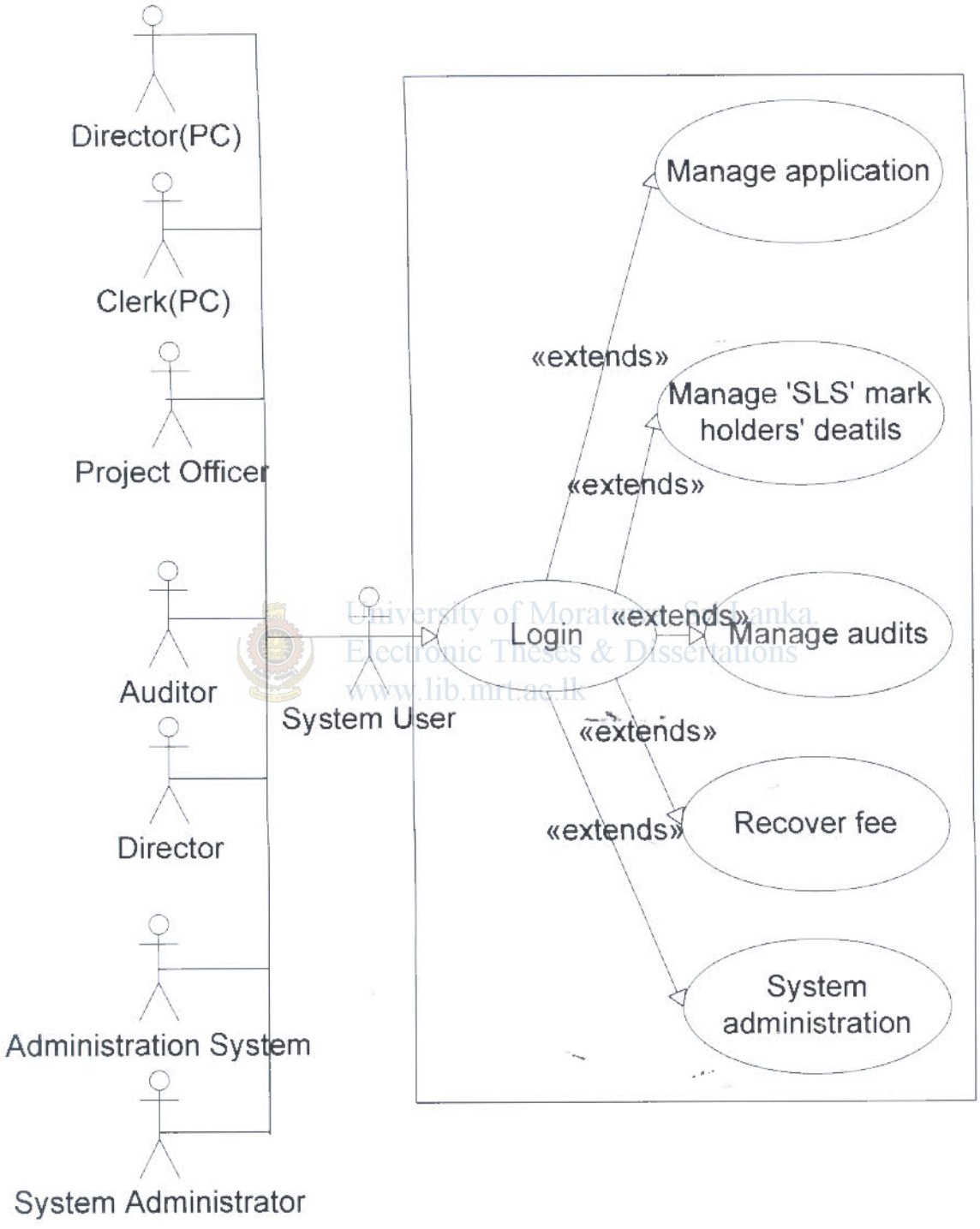
Over View of the System Interaction



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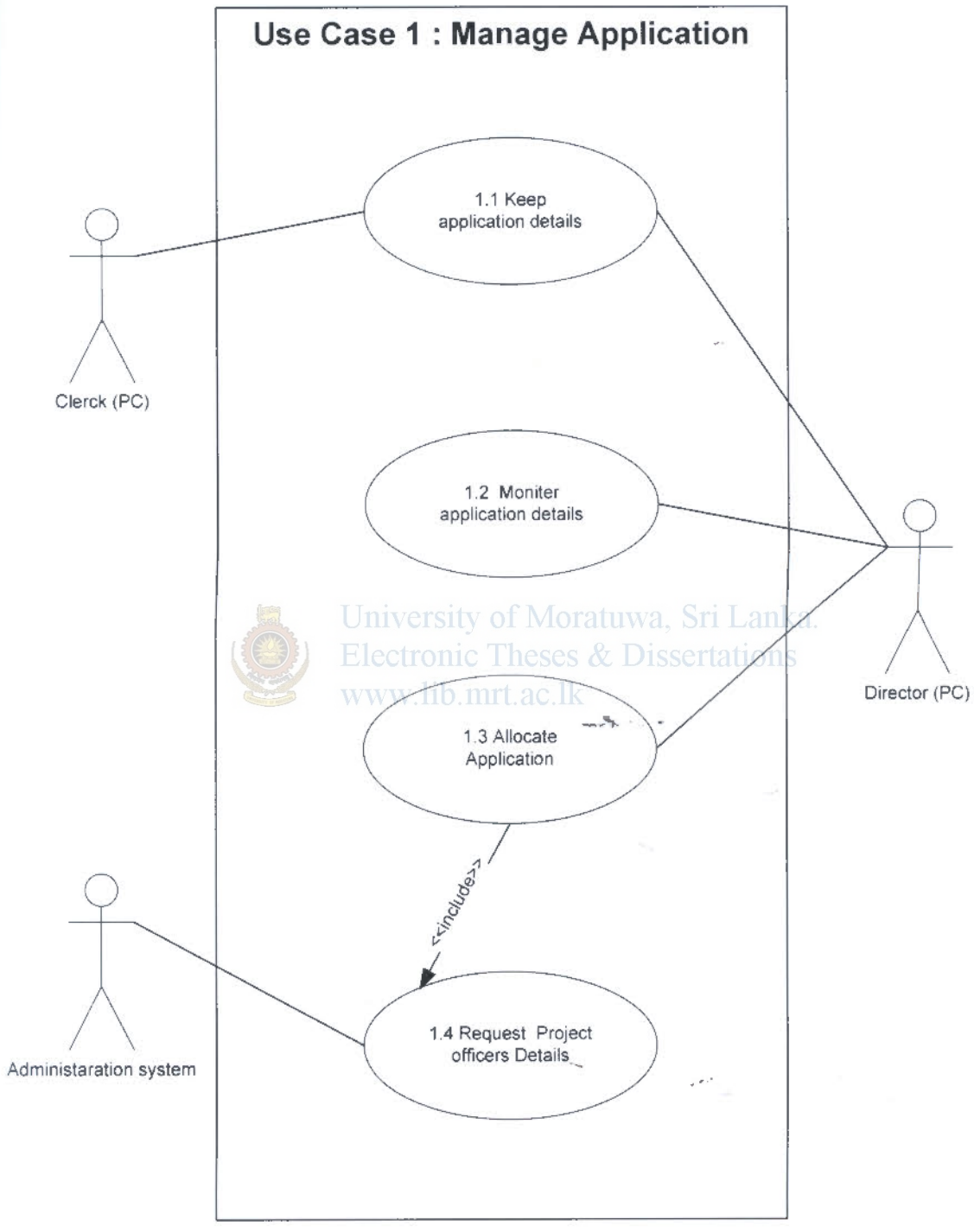

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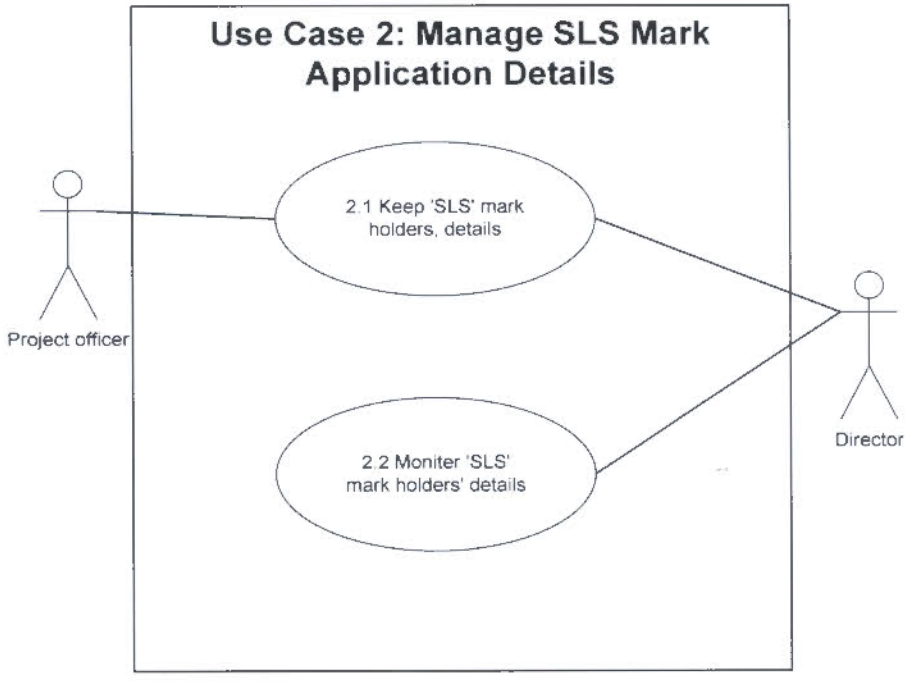

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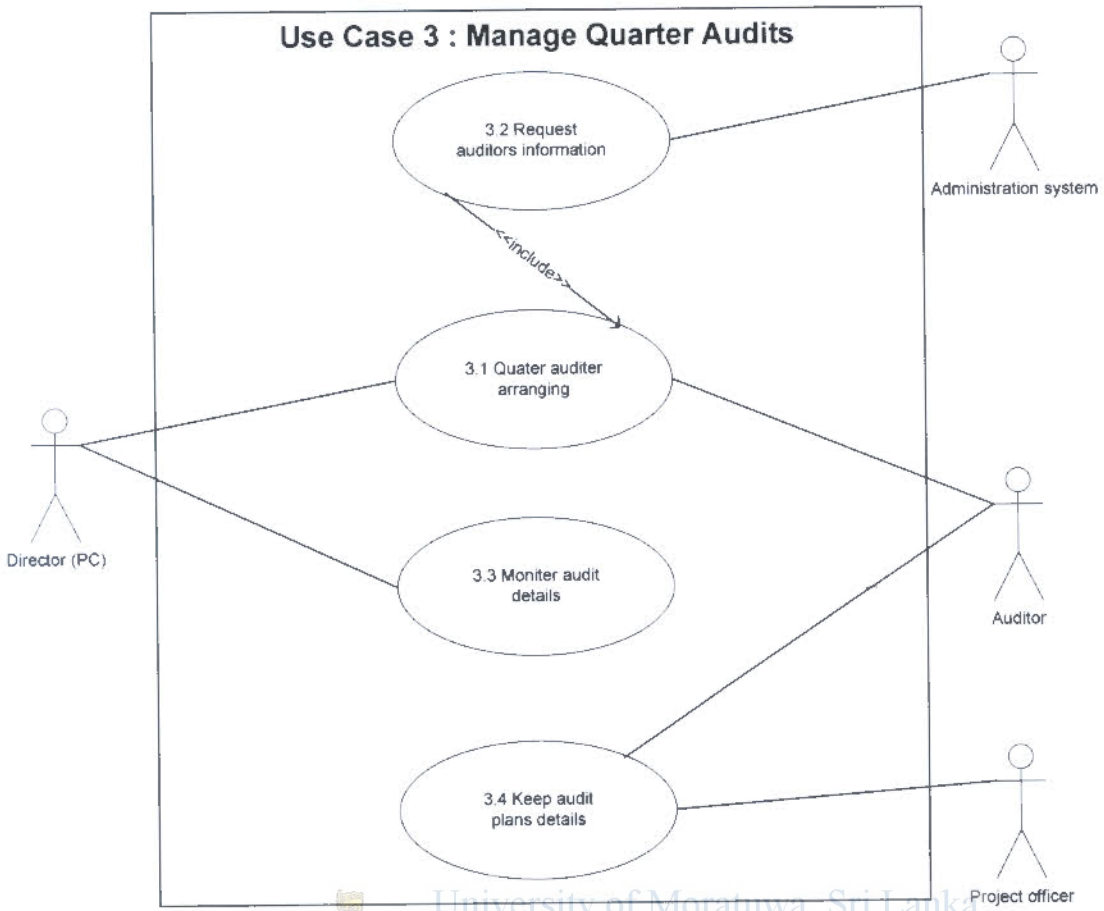

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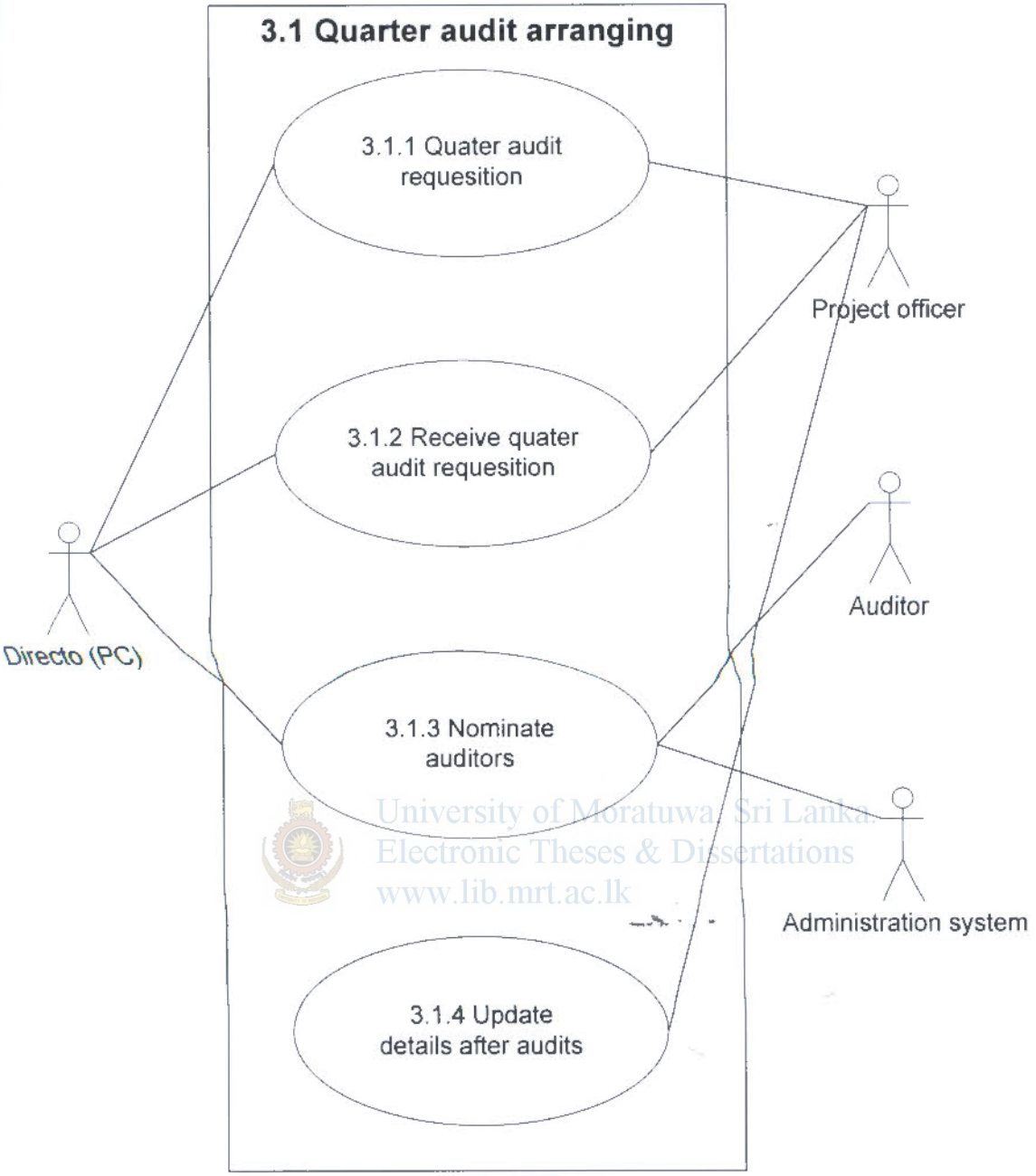

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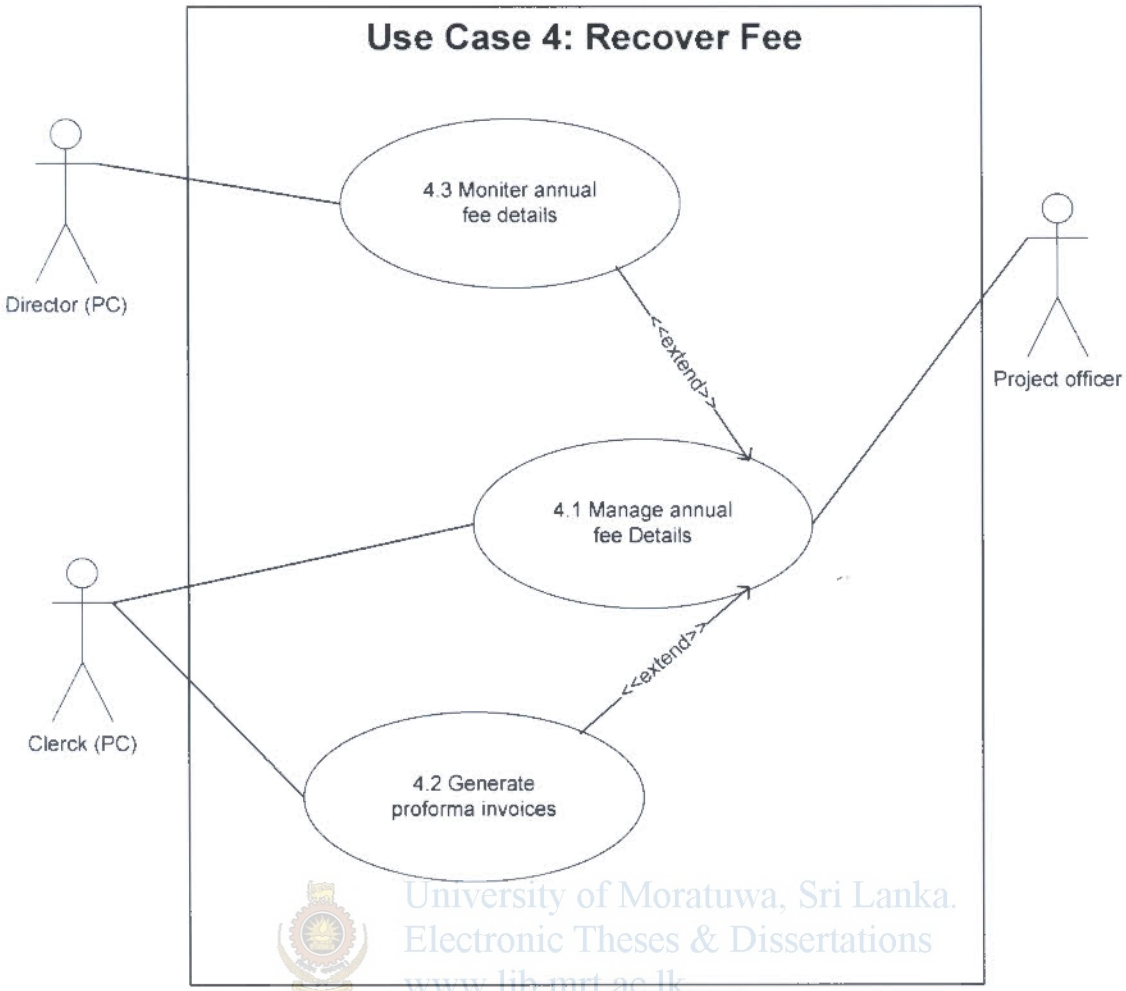

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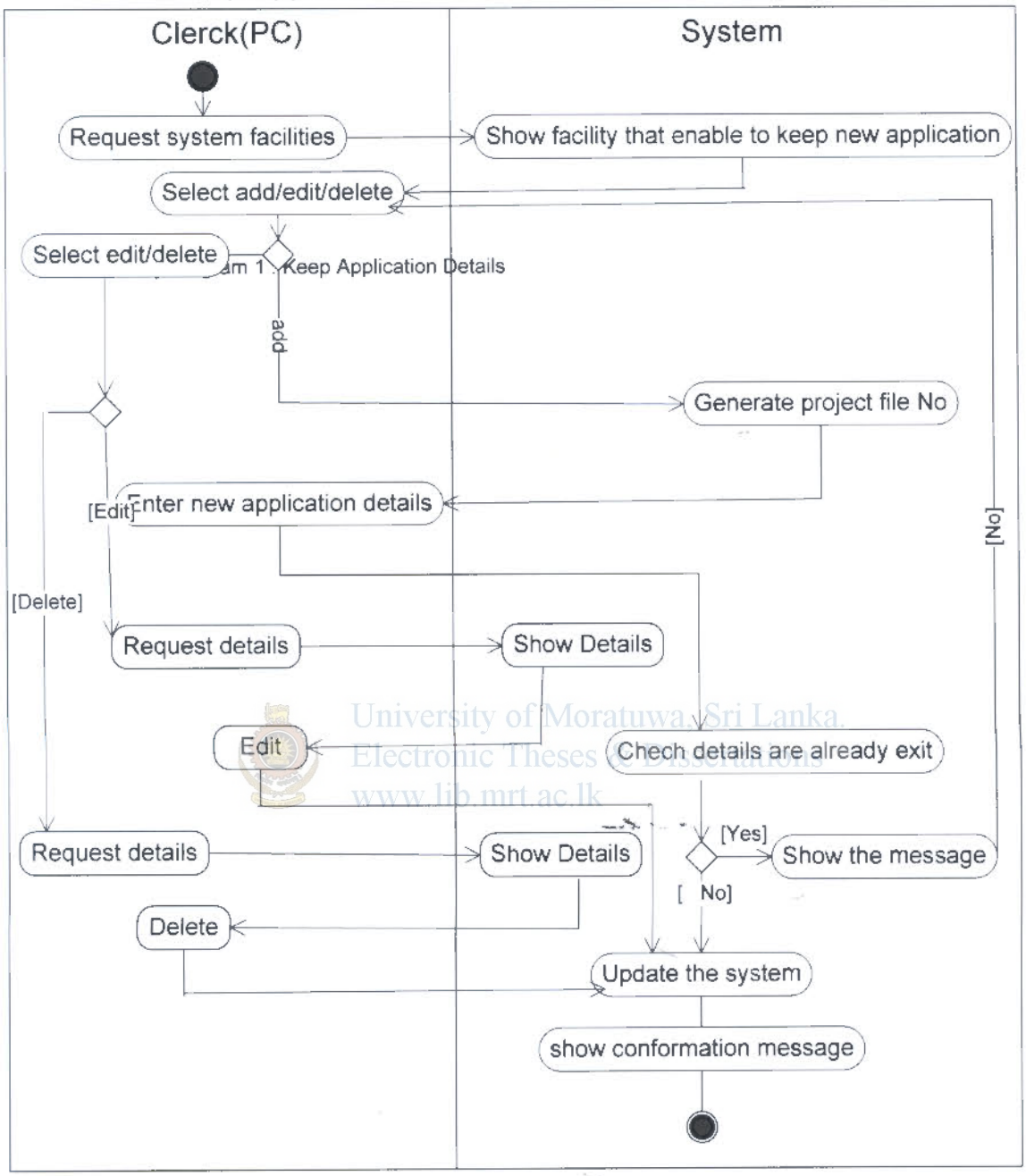
1.1 Keep Application Details



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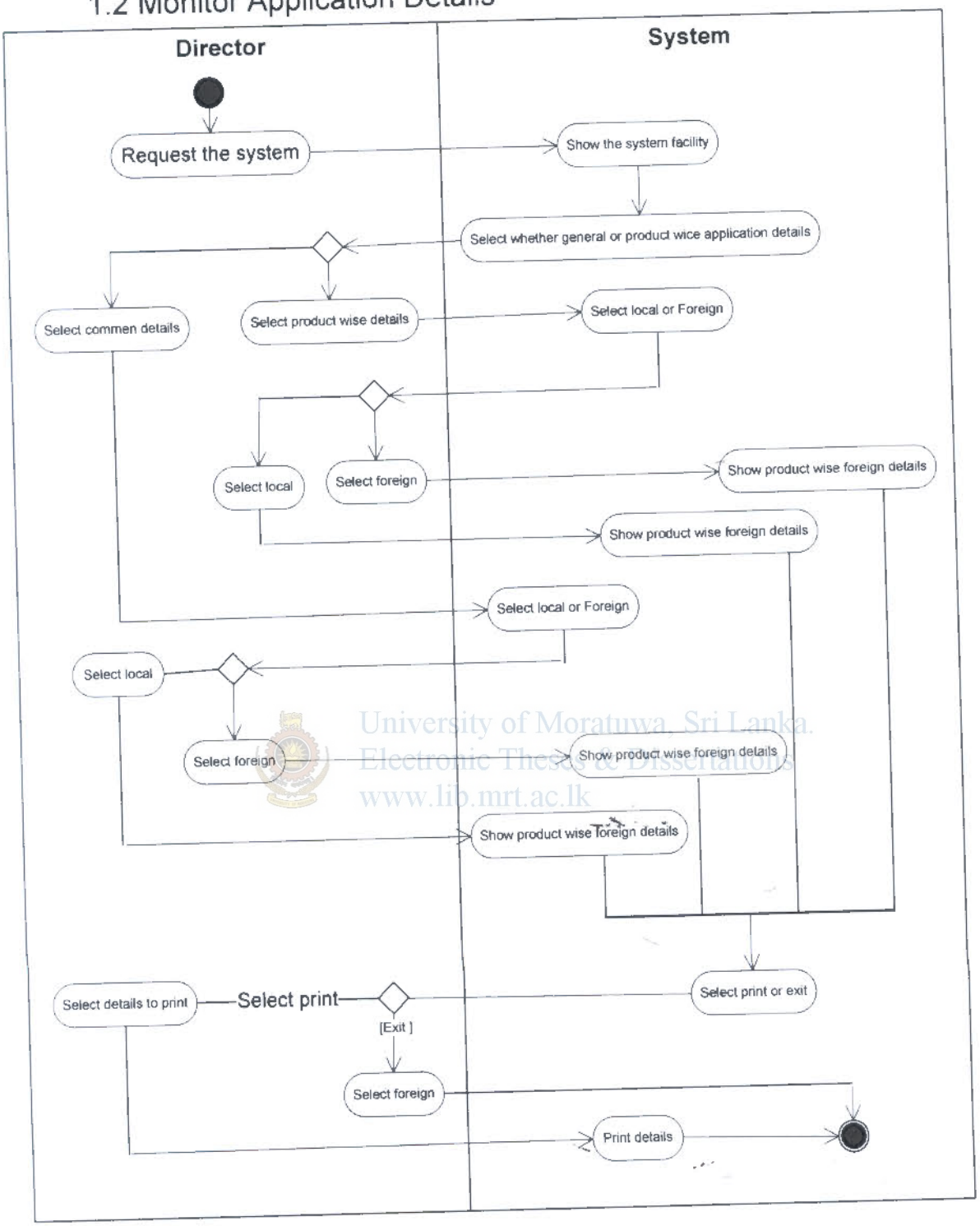
1.2 Monitor Application Details



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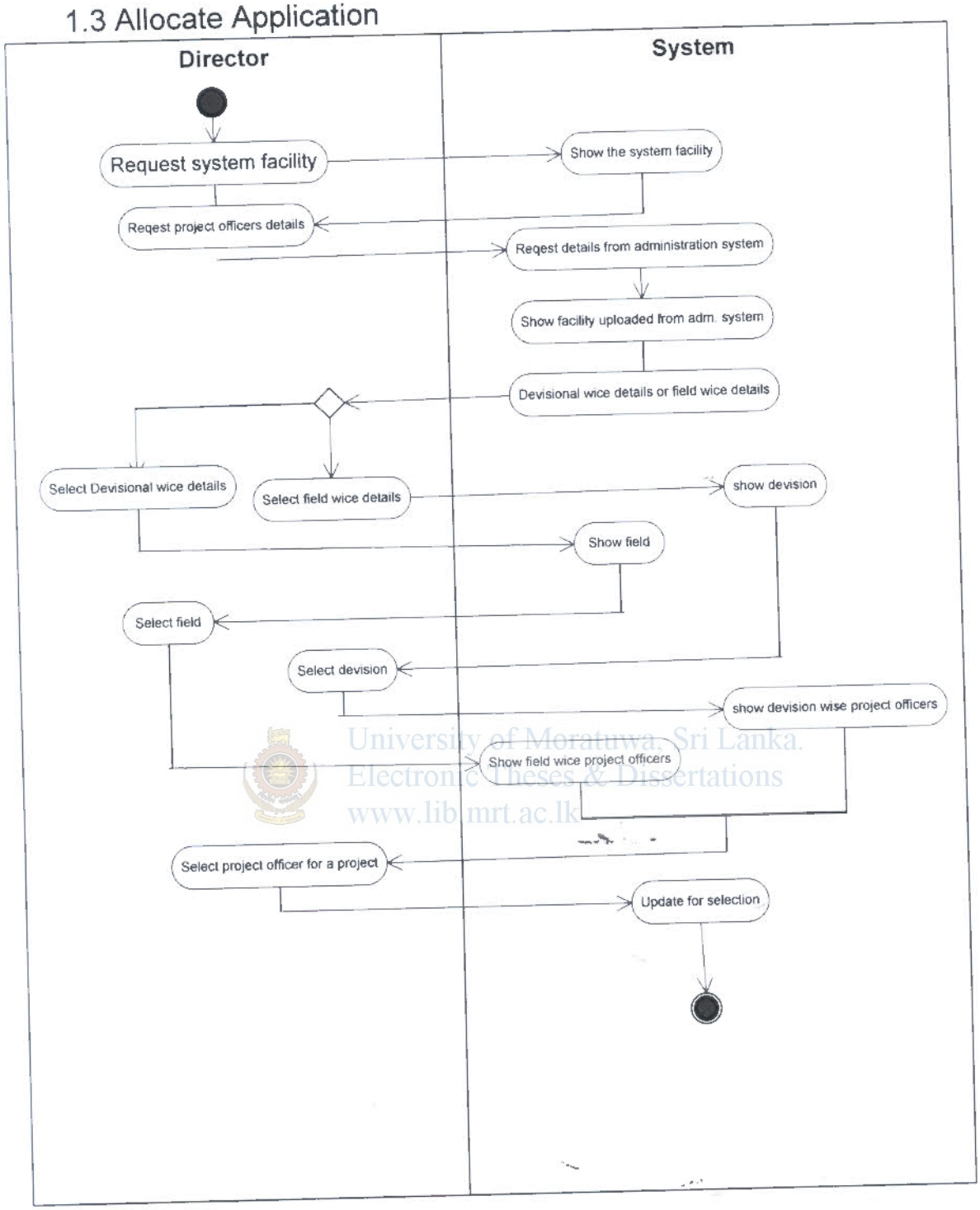
1.3 Allocate Application



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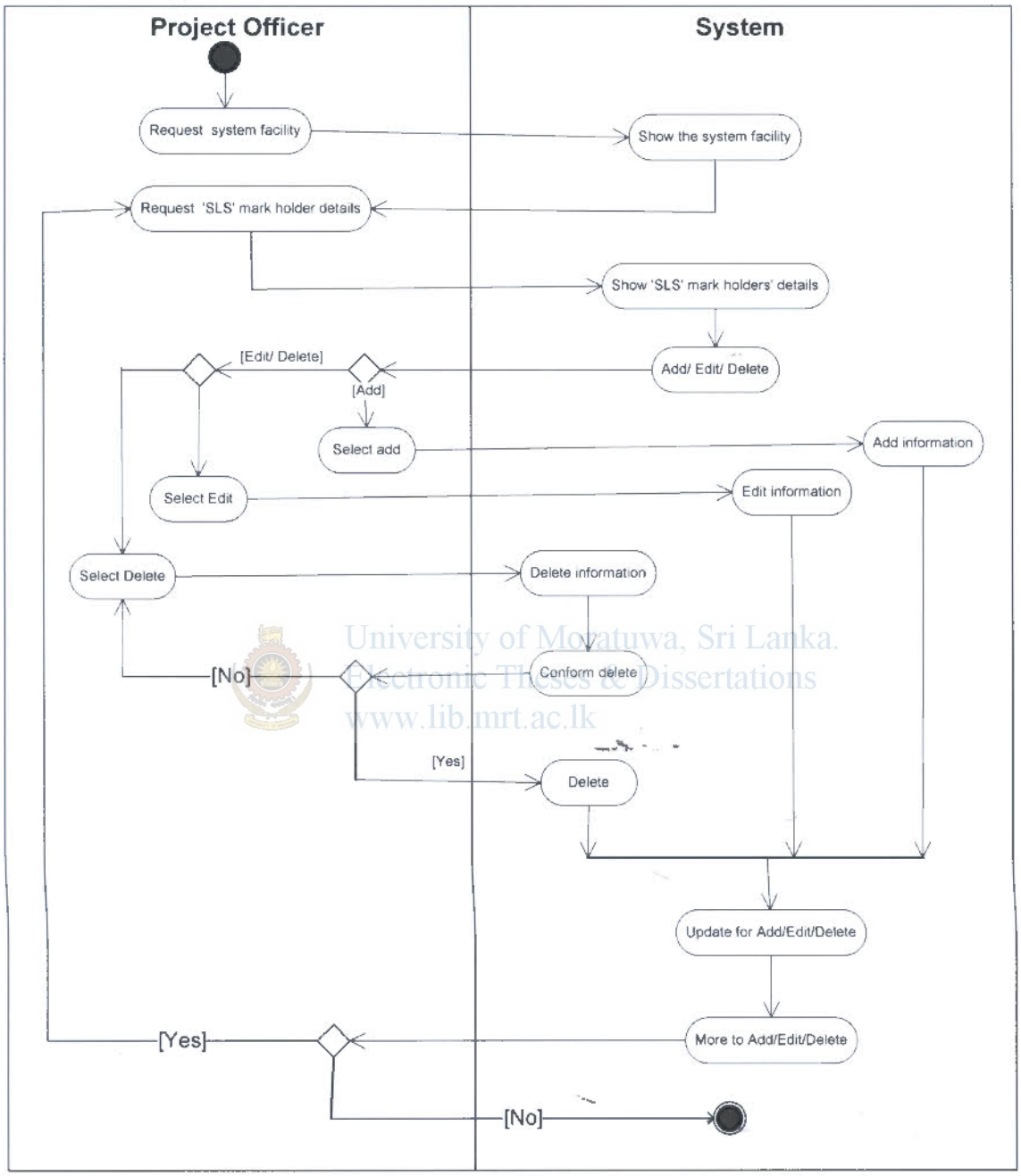
2.1 Keep 'SLS' Mark Holders' Details



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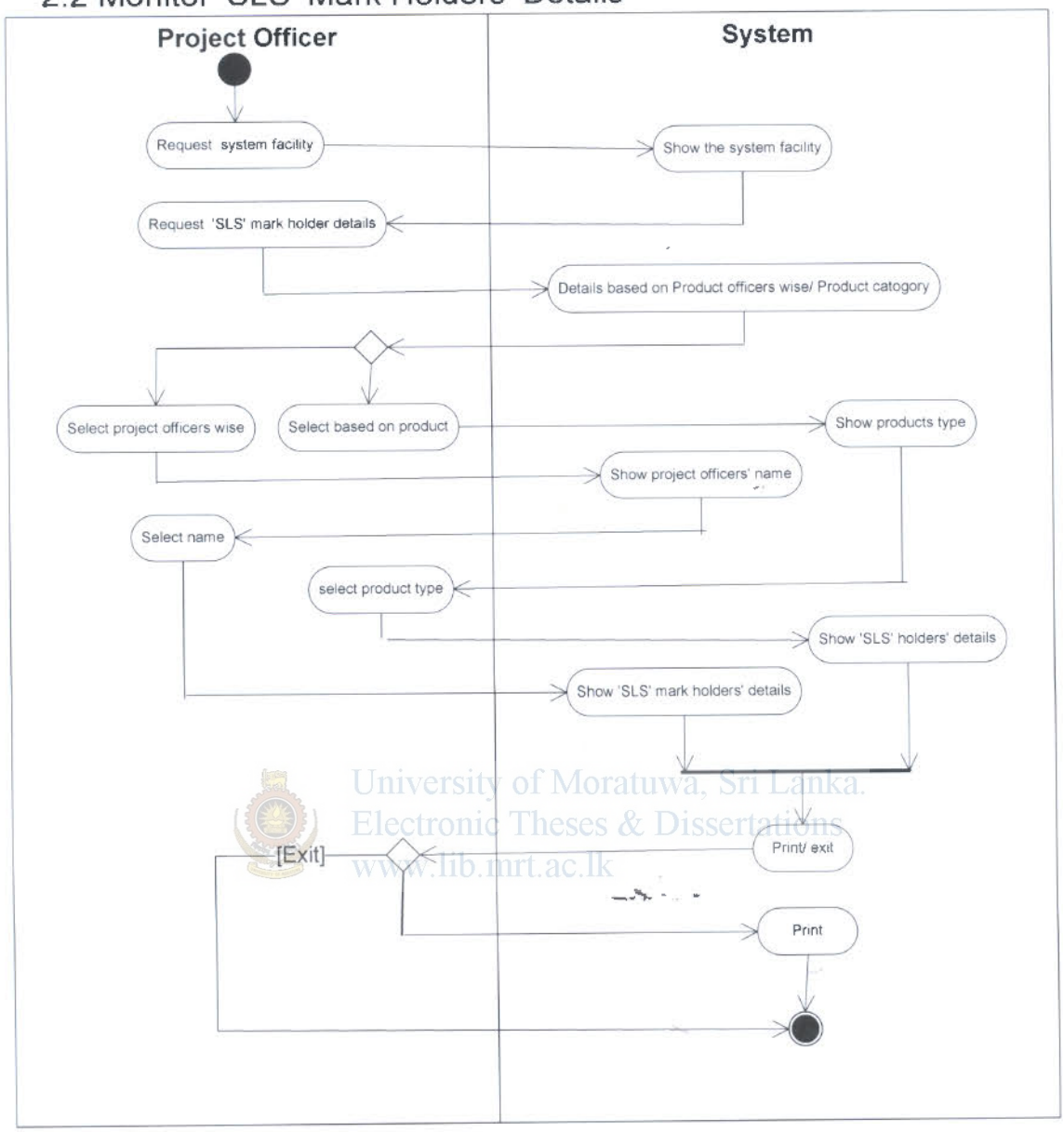
2.2 Monitor 'SLS' Mark Holders' Details



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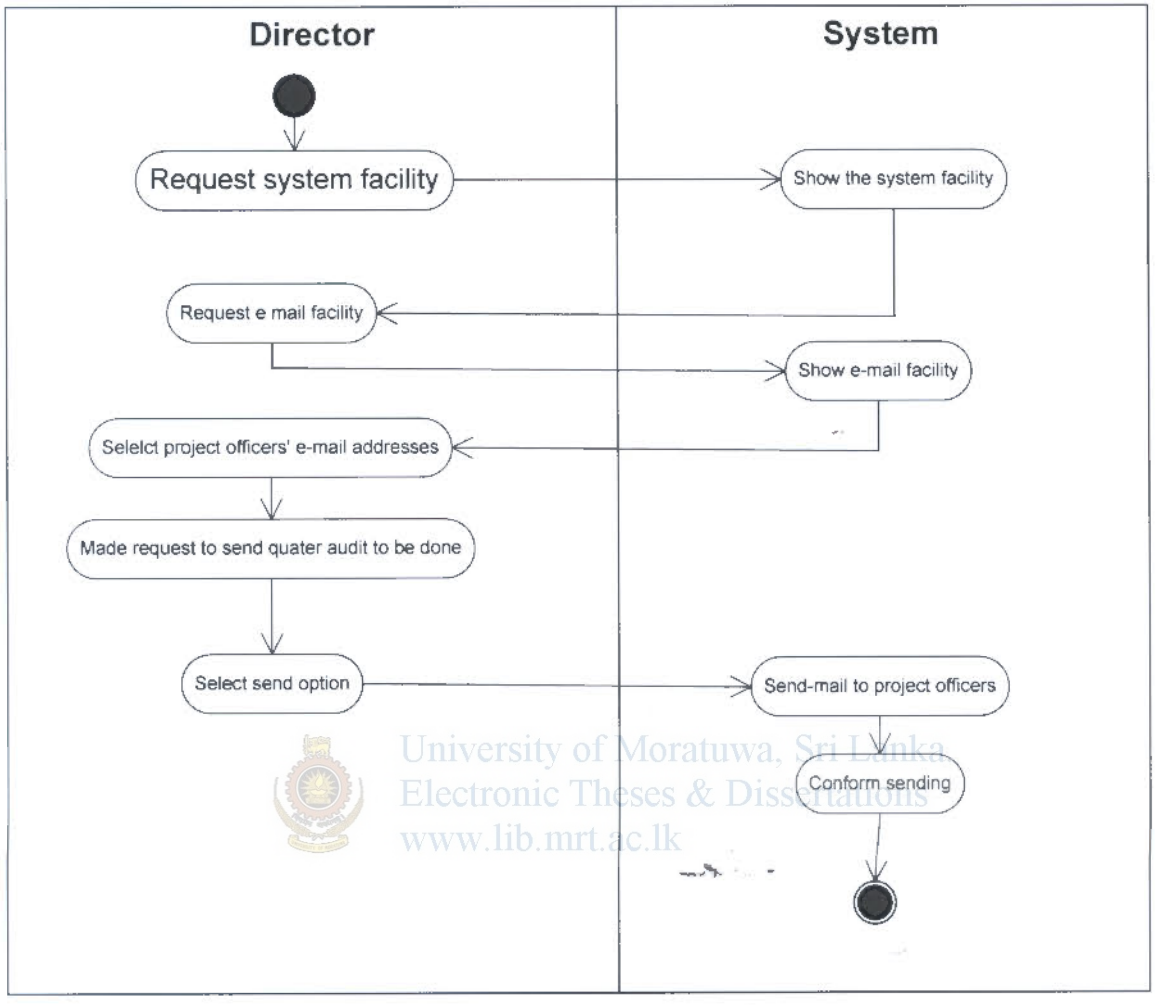
3.1.1 Quarter Audit Requisition



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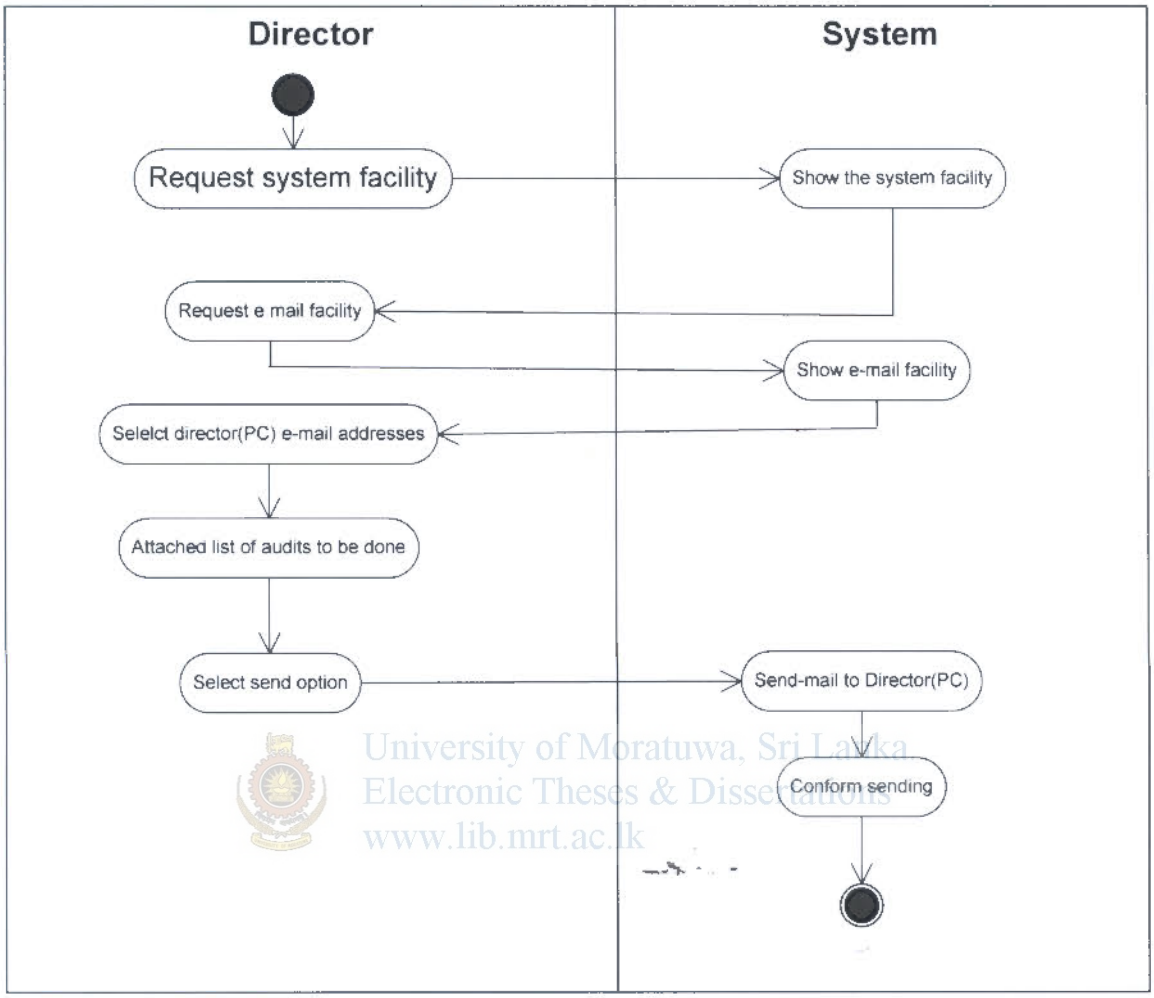
3.1.2 Receive Quarter Audit



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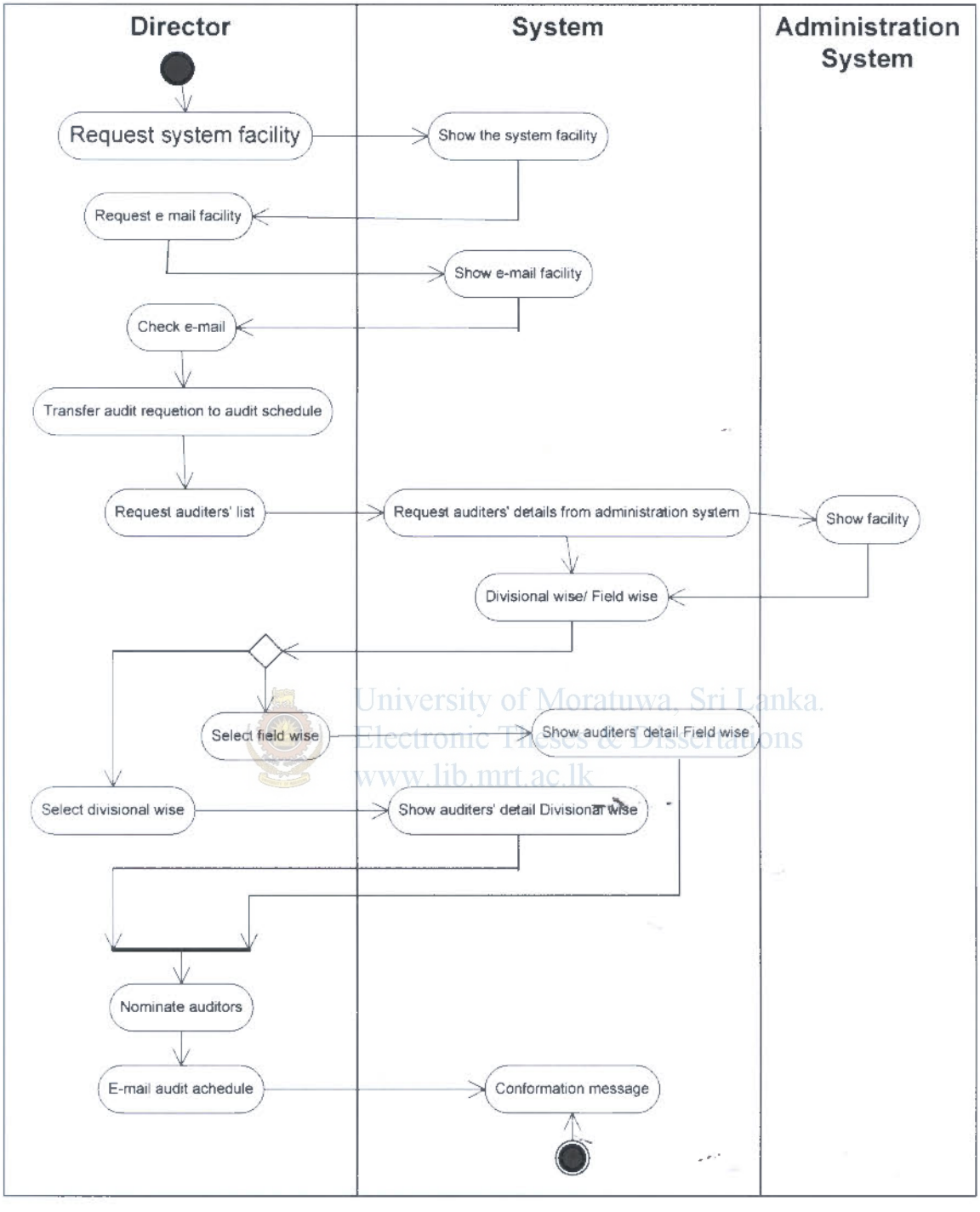
3.1.3 Nominate Auditors



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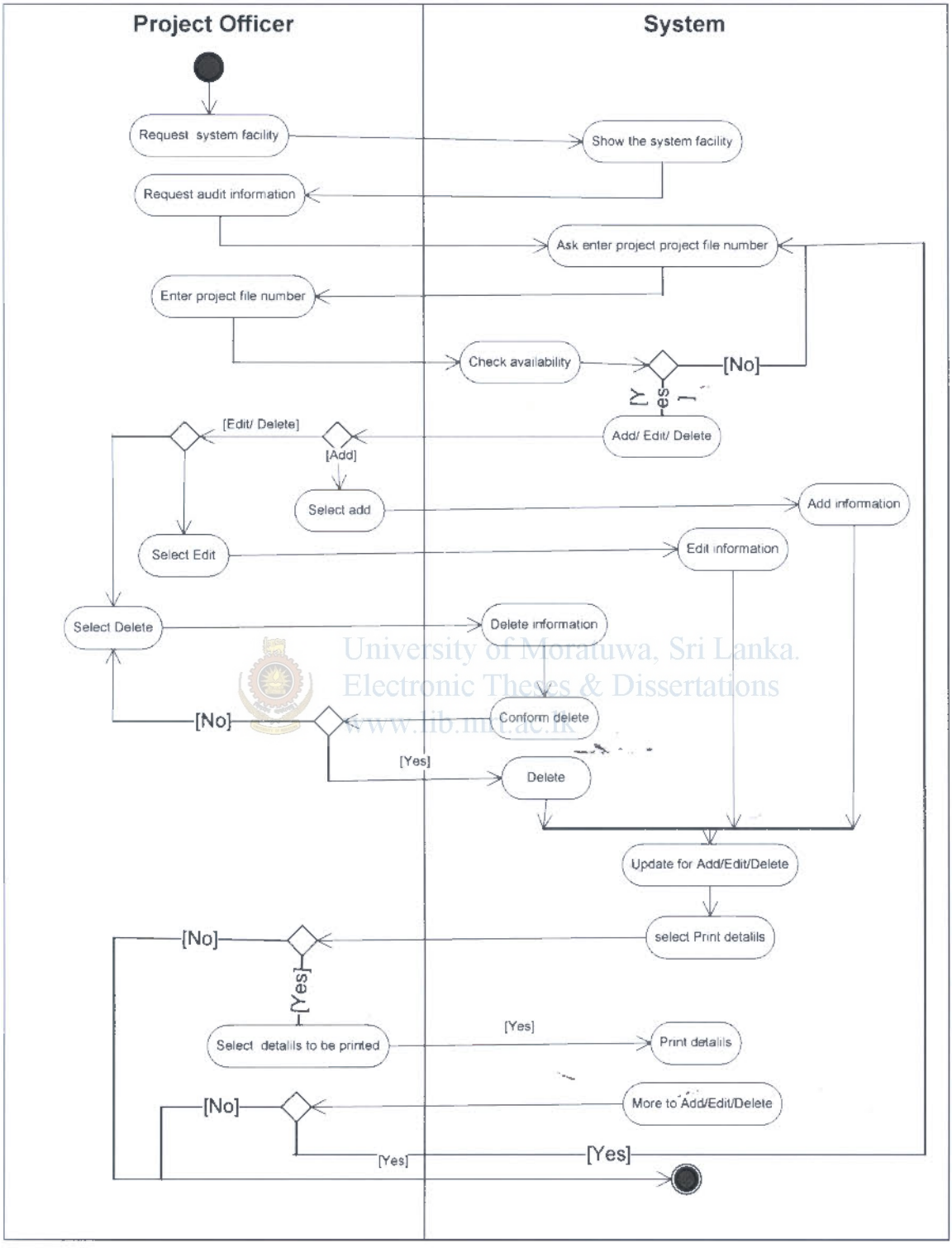
3.1.4 Update Audit Details



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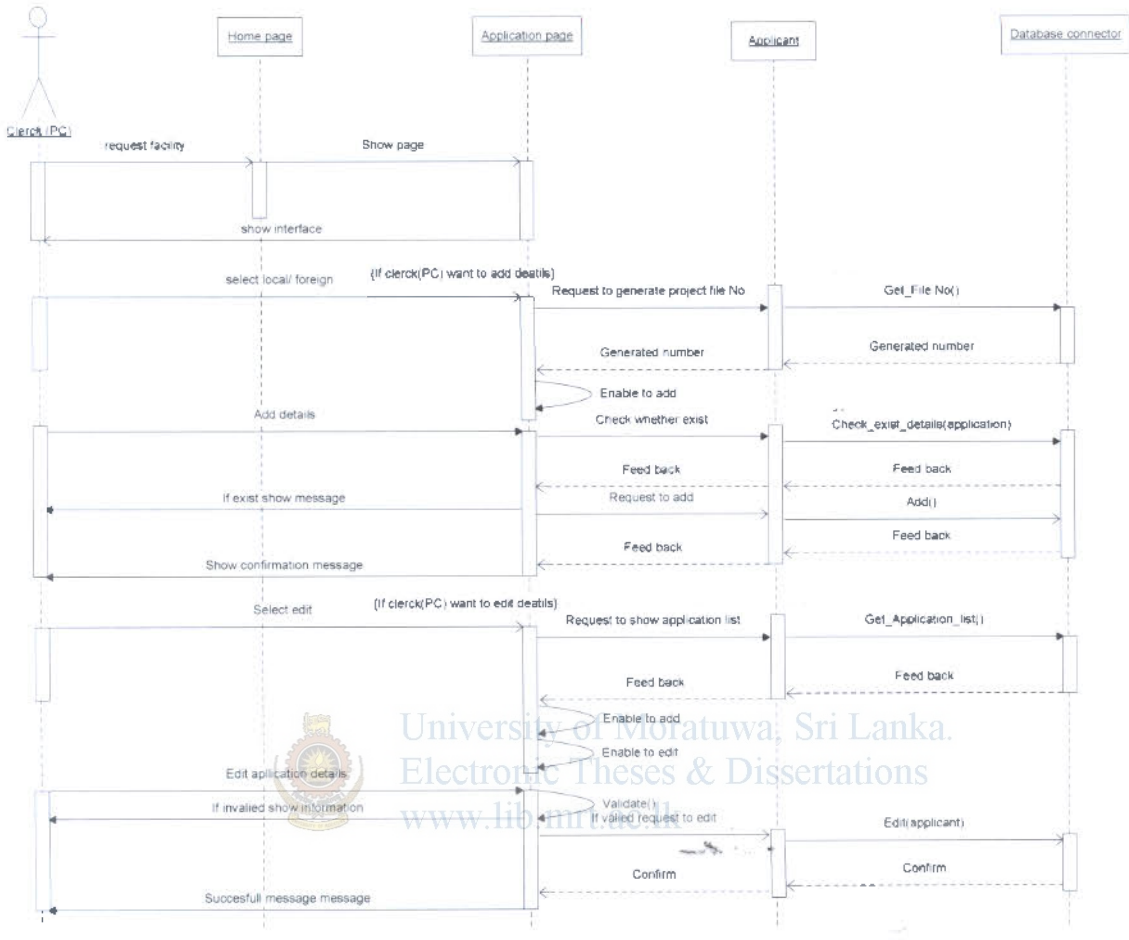
Sequence Diagram for Add Application Details



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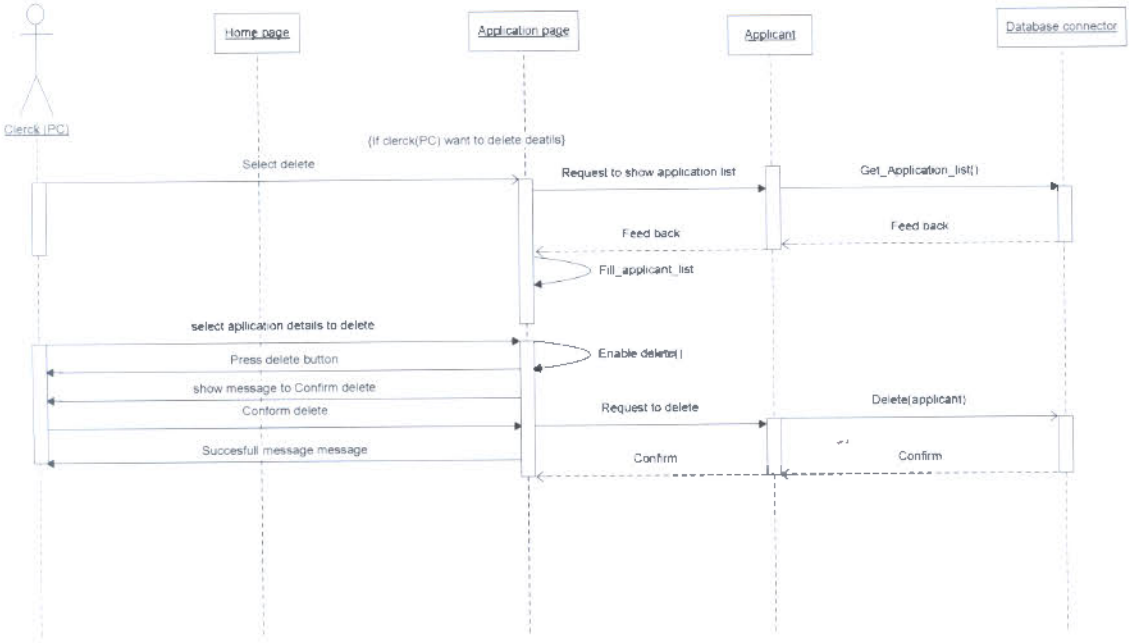
Sequence Diagram for Delete Application Details



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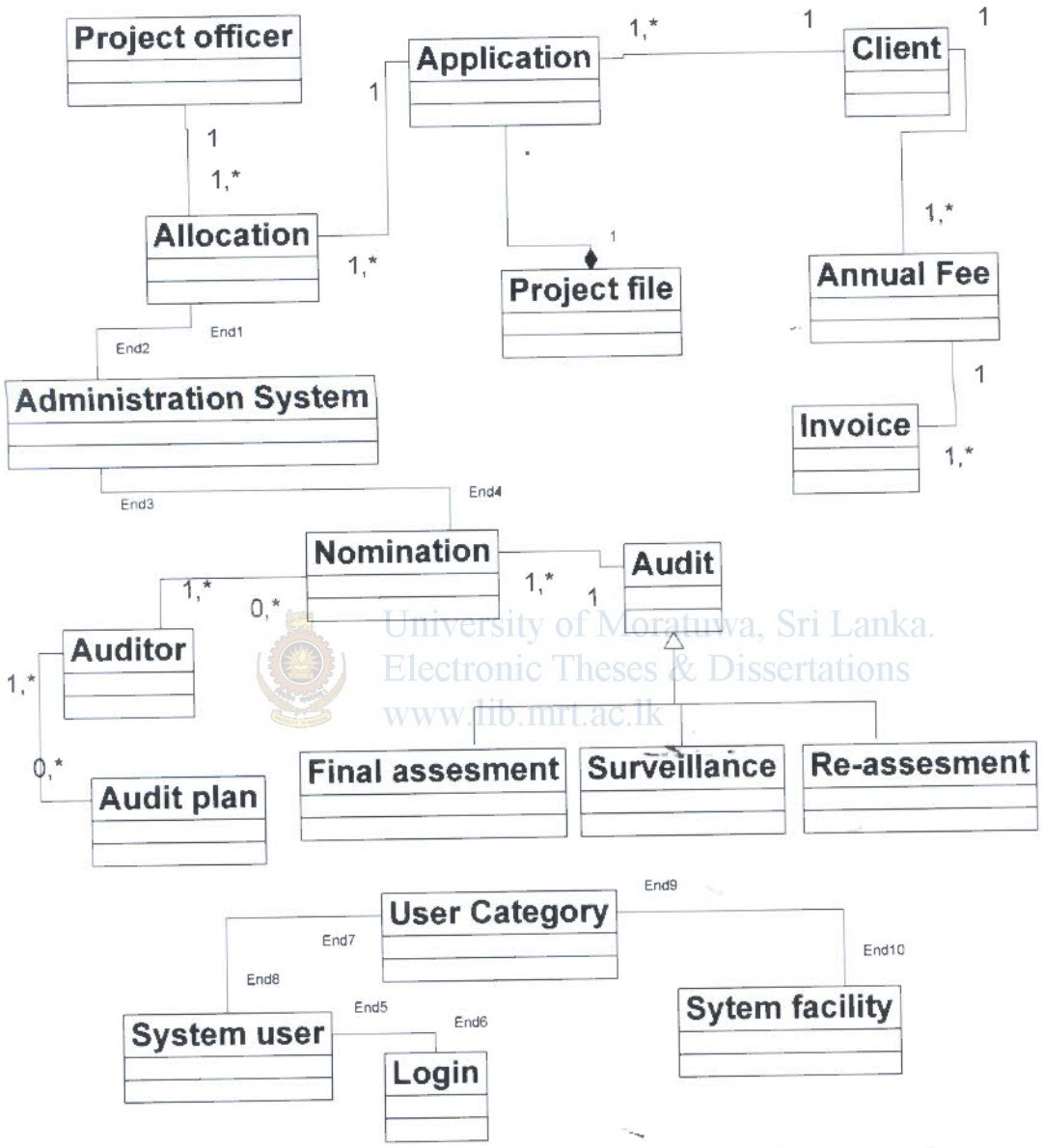
Class Diagram



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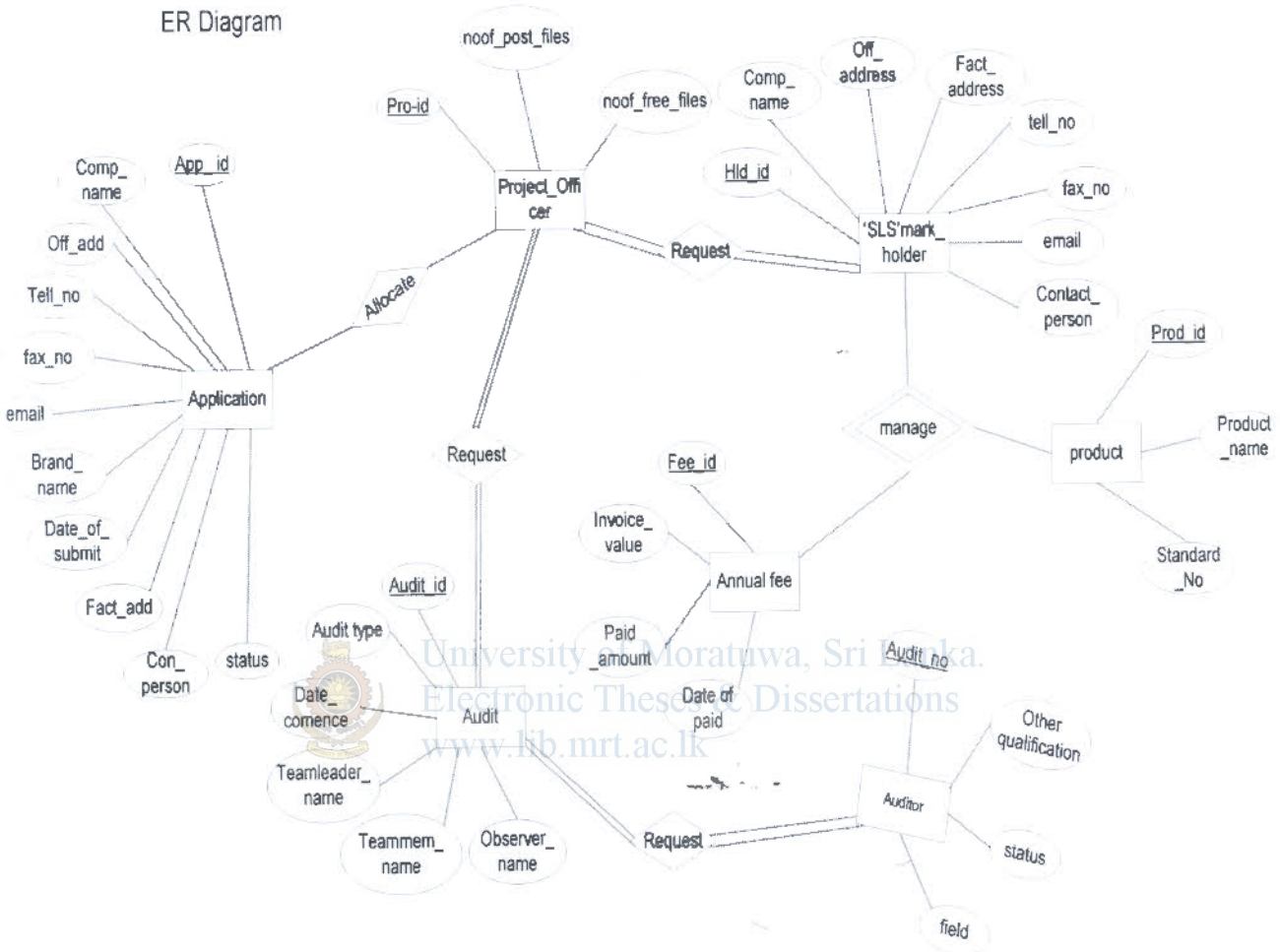

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Appendix D

User Interfaces

1 Login to the System

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2 Selecting the Fields

- **Applicantion Details**
  - Add
  - Edit
  - Delete
- **Project Officers' Details**
  - Add
  - Edit
  - Delete
- **SLS Mark Holders' Details**
  - Add
  - Edit
  - Delete
- **Annual Fee**
  - Add
  - Edit
  - Delete
- **Quater Audits**
  - Add
  - Edit
  - Delete
- **Auditors'Details**
  - Add
  - Edit
  - Delete
- **Product Details**
  - Add
  - Edit

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Delete

Reports

View/Print Application Details

View/Print Project officers' Details

View/Print 'SLS' Mark Holders' Details

View/Print Annual Fee Details

View/Print Audit Details

View/Print Auditors' Details

View/Print Product Details

Expand All - Collapse All

LogOut

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3 Adding Application Details

ADD APPLICATION DETAILS

Project file No.

Company name

Company address

Factory address

Contact persion

Tell No:

Fax No:

E-mail address:

Product:

Brand name:

Date of submit: (DD) (MM) (YYYY)

Application perusing charges: Paid / Not Paid

Select project officer:

Application Status

Submit

Home

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4 Edit Application Details

SELECT APPLICATION DETAILS

Project file no. [▼]

SHOW

EDIT APPLICATION DETAILS

Project file No.	<?php echo $row
Company name	<?php echo $row
Company address	<?php echo $row
Factory address	<?php echo $row
Contact Persion	<?php echo $row
Tell No:	<?php echo $row
Fax No:	<?php echo $row
E-mail address:	<?php echo $row
Product:	[▼]
Brand name:	<?php echo $row
Date of submit:	(DD) (MM) (YYYY)
Application perusing charges:	◉ Paid ○ Not Paid
Select project officer:	[▼]
Application Status	>SLS granted >SLS not granted [▼]

Submit

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5 **Deleting Application Details**

SELECT APPLICATION DETAILS

Project file no. [▼]

SHOW

DELETE APPLICATION DETAILS

Project file No. <?php echo $row

Company name <?php echo $row

Company address <?php echo $row

Factory address <?php echo $row

Contact Persion <?php echo $row

Tell No: <?php echo $row

Fax No: <?php echo $row

E-mail address: <?php echo $row

Product: [▼]

Brand name: <?php echo $row

Date of submit: (DD) (MM) (YYYY)

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Application perusing charges:

(•) Paid

( ) Not Paid

Select project officer: [▼]

Application Status >SLS granted >SLS not granted [▼]

Delete

Home

Appendix E

Important Codes Used for Implementation

1 Treeprocess.PHP Which Is Used to Initialize Tree Navigation Structure

```
function InitializeTree($user,$facility){

        //include 'library/opendb.php';

$query = "SELECT * FROM
user_account,user_category,category_facility,system_facility where
user_account.user_id='".$user."' and
user_account.ucategory_id=user_category.ucategory_id and
user_category.ucategory_id=category_facility.ucategory_id and
system_facility.sfacility_id=category_facility.sfacility_id and
system_facility.facility_name='".$facility."' order by system_facility.sfacility_id";


$result = mysql_query($query) or die('Query failed: ' . mysql_error());

                $no_tows=mysql_num_rows($result);

                if ($no_tows==0){
                        echo "<a href>";
                }else{

                        echo "<a href='$facility.php' target='master'>";
                }

}?>
```

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2 Checking Username and Password and Granting to Access to the Home Page.

```
<?php
 /* Initialize database access */
include 'library/config.php';
include 'library/opendb.php';

                //assign user name and password entered to variables
                @$username = $_POST["username"];
                @$password = $_POST["password"];
```

```
// Start - Check wether the user name and password are correct.
        $query = "SELECT *
                        FROM  user_account
                        WHERE user_name='$username' AND
                        passwd='$password'";

        $result = mysql_query($query) or die('Query failed: ' . mysql_error());

        $row = mysql_fetch_array($result);

        // Check whether user name and passwords are correct
        if(mysql_num_rows($result)==0){ ?>
         <script type="text/javascript">
                alert("Invalid user name or password");
                window.location="login.php";
         </script>
          <?php
          }else{
                // If correct user name and password

    /* Start - Get Log user ID and log time, and insert a record to user login table */
          $userid=$row['user_id'] ;
          $curDate=date("Y-m-d H,i,s");

          $query2 = "INSERT INTO user_login(log_id,user_id,login_time)
          values('','$userid','$curDate')";
          $result2 = mysql_query($query2) or die('Query failed: ' . mysql_error());

          //start session
          session_start();
          $_SESSION['au_userid'] = $row['user_id'] ;

          //Directing to home page
           ?>
                <script type="text/javascript">
                        window.location="index.php";
                </script>
<?php
        }
        // close the database connection
        include 'library/closedb.php';
?>
```

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3 Query for Update Application Details

```
if ($row["app_id"]==$app_id) {
                    $query2 = "UPDATE application set pro_no='$pfno',
com_name='$compname',off_add='$offadd',fact_address='$factaddr',tell_no='$tellno',fax
_no='$faxno',email='$eaddr',prod_id='$product',brand_name='$branname',pro_id='$offic
er',cont_persion='$contper',status='$status' WHERE app_id='$app_id'";

$result2 = mysql_query($query2) or die('Query failed: ' . mysql_error());
$query2 = "UPDATE vacancy set
```

4 Java Script for Delete Application Deatails

```
$query = "SELECT pro_no
                    FROM product_officer_holder
                    WHERE pro_no='$pfno'";
                    $result = mysql_query($query) or die('Query failed: ' .
mysql_error());

                    /* if post exists then display a massage otherwise enable to
add */
                    if(mysql_num_rows($result)!=0){
                    ?>
                    <script type="text/javascript">
          // display a successful record
                alert("cannot be deleted.");
                window.location="DeleteApplication.php";
          </script>
          <?php
                    }
                    else {

                    /* check for eneted post existance */
                    $query1 = "DELETE FROM application WHERE
pro_no='$pfno'";
                    $result1 = mysql_query($query1) or die('Query failed: ' .
mysql_error());
        ?>
                    <script type="text/javascript">
          // display a successful record
                alert("successfully deleted.");
                window.location="DeleteApplication.php";
          </script>
          <?php
```

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5 Print.css Style Sheet

```
@CHARSET "UTF-8";

.print_ignore {
   display: none;
}

body, table, th, td {
   color:            #000000;
   background-color:  #ffffff;
   font-size:         8pt;
}

img {
   border: 0;
}

table, th, td {
   border-width:      0.1em;
   border-color:      #000000;
   border-style:      solid;
}

table {
   border-collapse:   collapse;
   border-spacing:    0;
              border-spacing:    0;
/*
         MARGIN-LEFT: 10% ;
         MARGIN-TOP: 5% ;

         MARGIN-RIGHT: 10% ;
         width : 80% ;
*/
}

th, td {
   padding:           0.2em;
}

th {
   font-weight:       bold;
   background-color:  #e5e5e5;
                           border-top: 3px solid ;
                  border-bottom: 3px solid ;
```

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```
}
@media print {
  .print_ignore {
    display: none;
  }

  body, table, th, td {
    color:            #000000;
    background-color:  #ffffff;
    font-size:        12pt;
  }

  img {
    border: 0;
  }

  table, th, td {
    border-width:     1px;
    border-color:     #000000;
    border-style:     solid;
                border: none;
  }

  table {
    border-collapse:   collapse;
    border-spacing:    0;
      /*MARGIN-LEFT: 10% ;
      MARGIN-TOP: 5% ;

      MARGIN-RIGHT: 10% ;
      width : 80% ; */
  }

  th, td {
    padding:          0.2em;
                align : left;
  }

  {
    font-weight:      bold;
    background-color:  #e5e5e5;
                border-top: 1px solid ;
                border-bottom: 1px solid ;

  }
}
```

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6 Javascript to Print a Report

```
<script>
function PrintPage(){
if (typeof(window.print)!='undefined'){
        window.print();
}
}
</script>
```

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Appendix F

Test Cases

1 Test Case – Add Application Details

Test Case ID	2
Tested Component	Add applicant
Tested Area	Functionality
Purpose	Add new applicant to the system
Prerequisites	Applicant should not be an existing one for same product
Test Data	Applicant name = {New, Existing, Empty } Applicant details = {Valid , In-valid, Empty }

Test Case Description

No.	Test Case	Expected output
1	Enter applicant for new product & valid details	Message "The applicant is successfully added" should be displayed.
2	Enter existing applicant for existing product & details	Message" The applicant is already exists. Please enter a different one" should be displayed
3	Enter empty applicant name & details	Message "Post is empty. Please enter the post." should be displayed
4	Enter new applicant for new product & invalid details	Message "Applicant is not added. Please re-check applicants' details" should be displayed

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Appendix G

Test Data & Results

1 Test Result – Add Application Details

Test Case ID		2
Tested Component		Add applicant
Tested by		Sanath
Tested Date		2008-10-03
Test System		Windows XP, IntelP(IV) , Internet Explorer
Test Results Description		
Test Case 1	:	**Enter new Post & details**
Input Specification	:	Numeric , Text
Sample Data	:	Project file No.= 'FI/PC/01'; Company name ='Amtrad Limited'; Company Address= 'Veyangoda' ; Factory Address= 'Veyangoda'; Contact person= 'Hendric'; Tell No= '031-2272853'; Fax No.= '031-2272854'; E-mail address = 'hendric@amtrad.slt.lk' ; Product= 'Cement blocks'; Date of Submit= '2004-12-20'; Application Perusing Charges= 'Paid; Apllicant Stated= 'Permit granted'
Test Result	:	Pass
Remarks	:	System Add a new applicant
Test Case 2		**Enter existing Applicant for existing product details**
Input Specification		Numeric , Text
Sample Data		Project file No.= 'FI/PC/01'; Company name ='Amtrad Limited'; Company Address= 'Veyangoda' ; Factory Address= 'Veyangoda'; Contact person= 'Hendric'; Tell No= '031-2272853'; Fax No.= '031-2272854'; E-mail address = 'hendric@amtrad.slt.lk' ; Product= 'Cement blocks'; Date of Submit= '2004-12-20'; Application Perusing Charges= 'Paid; Apllicant Stated= 'Permit granted'
Test Result		Pass
Remarks		System does not add vacancy since it is available

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Test Case 3	:	**Enter empty Project file No.**
Input Specification	:	Numeric , Text
Sample Data	:	Project file No.= ''; Company name ='Amtrad Limited'; Company Address= 'Veyangoda' ; Factory Address= 'Veyangoda'; Contact person= 'Hendric'; Tell No= '031-2272853'; Fax No.= '031-2272854'; E-mail address = 'hendric@amtrad.slt.lk' ; Product= 'Cement blocks'; Date of Submit= '2004-12-20'; Application Perusing Charges= 'Paid; Apllicant Stated= 'Permit granted'
Test Result	:	Pass
Remarks	:	System does not add vacancy
Test Case 4		**Enter new Project file number & invalid details**
Input Specification		Numeric , Text
Sample Data		Project file No.= 'FI/PC/02'; Company name ='0'; Company Address= '0' ; Factory Address= 'Veyangoda'; Contact person= 'Hendric'; Tell No= '031-2272853'; Fax No.= '031-2272854'; E-mail address = 'hendric@amtrad.slt.lk' ; Product= '0'; Date of Submit= '2004-12-20'; Application Perusing Charges= 'Paid; Apllicant Stated= 'Permit granted'
Test Result		Pass
Remarks		Only Date of Publication is invalid. System does not add vacancy

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Appendix H

Attribute List

1 Annual Fee Table

Attribute	Data Type	Remarks
fee_id	integer	Primary key, Annual fee Id
Invoc_val	integer	Invoice value
one_qua	integer	Amount paid in first quarter
date_one	datetime	Date of the fist quarter payment done
two_qua	integer	Amount paid in second quarter
date_two	varchar(50)	Date of the second quarter payment done
three_qua	integer	Amount paid in third quarter
date_three	datetime	Date of the third quarter payment done
four_qua	integer	Amount paid in fourth quarter
date_four	datetime	Date of the fourth quarter payment done
Pro_no	varchar(45)	Project file number
year	integer	Year of payment done
total	integer	Total amount paid

2 Application Table

Attribute	Data Type	Remarks
app_id	integer	Primary key, Application id
com_name	varchar(45)	Company name
off_add	varchar(45)	Office address
tell_no	varchar(45)	Telephone number
fax_no	varchar(45)	Fax number
email	varchar(45)	Email
brand_name	varchar(45)	Brand name
date_of_submit	datetime	Application submission date
pro_id	integer	Project officer id
Fact_address	varchar(45)	Factory address
pro_no	varchar(45)	Project file number
cont_persion	varchar(45)	Contact person
status	varchar(45)	"SLS" mark has been issued or not

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3 Audit Table

Attribute	Data Types	Remarks
audit_id	integer	Primary key, Audit id
pro_no	varchar(45)	Project file number
type_of_audit	varchar(45)	Whether surveillance or re assessments
date_of_cmnce	varchar(45)	Date of commence
team_led	varchar(45)	Team leader
team_mem	varchar(45)	Team member
observer	varchar(45)	Observer

4 Auditor Table

aud_no	integer	
field	varchar(45)	
auditor_status	varchar(45)	
othr_quali	varchar(45)	
emp_id	integer	Primary key,Employee

5 Employee Table

Attribute	Data Type	Remarks
emp_id	integer	Primary key, Employee
epf_no	integer	EPF no
pfile_no	integer	Personnel file no
full_name	varchar(100)	Full name
name_initial	varchar(45)	Name with initial
add 1	varchar(50)	Address
add 2	varchar(50)	Address
add 3	varchar(50)	Address
dob	datetime	Date of Birth
sex	varchar(10)	Sex
religion	varchar(20)	Religion
race	varchar(20)	Race
nic	varchar(45)	National Identity Card No
passport_id	varchar(45)	Passport id
home_tel	varchar(45)	Home telephone
mobile_tel	varchar(45)	Mobile telephone
email	varchar(45)	email
civil_status	varchar(15)	Civil status.
edu_ol	varchar(150)	Ordinary Level Qualifications
edu_al	varchar(150)	Advanced Level Qualifications
edu_graduate	varchar(150)	Degrees
edu_postgraduate	varchar(150)	Post Graduate degrees
edu_other	varchar(200)	Other educational qualifications
work_exp	varchar(200)	Working experience
prof_qua	varchar(200)	Professional experience
school_att	varchar(150)	Schools attended
bank	varchar(50)	Name of the bank
branch	varchar(100)	Branch
sinhala_prof	varchar(45)	Sinhala language proficiency
tamil_prof	varchar(45)	Tamil language proficiency
english_prof	varchar(45)	English language proficiency
date_appoint	datetime	Date of appointment
date_left	datetime	Date of left
job_status	varchar(20)	Job status : Retied/Terminated/Suspended
staus_rem	varchar(100)	Remarks for job status
category	varchar(45)	Employee category: Executive / non-

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		executive
is_abc_recieved	tinyint(1)	Whether EPF forms A,B,C received to division
is_labore_sent	tinyint(1)	Whether filled EPF forms sent to labore dept
is_b_recieved	tinyint(1)	Whether EFP form B received from labore dept
is_k_certified	tinyint(1)	Whether ETF form K certified by SLSI
des_id	integer	Current designation id
des_rem	varchar(100)	Remarks for designation information
gra_id	integer	Grade id
gra_rem	varchar(150)	Remarks for grade information
app_id	integer	Application id

6 Product Table

Attribute	Data Type	Remarks
prod_id	integer	Product id
noof_post_files	varchar(45)	Name of the dependent
Noof_free_files	varchar(45)	Male / female
emp_id	integer	Primary key, Employee

7 Division Table

Attribute	Data Type	Remarks
divi_id	intger	Primary key,Division id
divi_name	varchar(75)	Name of the division
director	integer	Director for the division
remarks	varchar(100)	Remarks for further information

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8 Section Table

Attribute	Data Type	Remarks
sec_id	integer	Primary key,section id
sec_name	varchar(100)	Name of the section
incharge	integer	in charge for the division
divi_id	integer	To Which division the section is belonged to
remarks	varchar(100)	Remarks for further information

9 Emp_Section Table

Attribute	Data Type	Remarks
empdivi_id	integer	Primary key
emp_id	integer	Employee id
sec_id	integer	Section id
from_date	datetime	The date of assigned
to_date	datetime	The date that employee is reassigned to another division/section
remarks	varchar(100)	Remarks for further information

10 Product_officer_holder Table

Attribute	Data Type	Remarks
Poh_id	integer	Primary key, user category id
prod_id	integer	Product id
pro_id	integer	Product id
hld_id	integer	"SLS" mark holder id
pro_no	varchar(45)	Project file number
permit_no	varchar(45)	Permit number
Issue_date	varchar(45)	Permit issue date
Renewal date	varchar(45)	Next date of renewal

11. Project officer Table

Attribute	Data Type	Remarks
pro_id	integer	Product id
noof_post_files	varchar(45)	Name of the dependent
Noof_free_files	varchar(45)	Male / female
emp_id	integer	Primary key, Employee

12 Sls_mark_holder Table

Attribute	Data Type	Remarks
hld_id	integer	Primary key , "SLS" mark holder id
com_name	varchar(45)	Company name
off_add	varchar(45)	Office address
tell_no	varchar(45)	Telephone number
fax_no	varchar(45)	Fax number
email	varchar(45)	Email
com_name	varchar(45)	Company name
cont_persion	varchar(45)	Contact person

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13 User_Login Table

Attribute	Data Type	Remarks
log_id	integer	Primary key
user_id	integer	Logged user id
login_time	datetime	Time of logging
logoff_time	datetime	Time of logoff

14 User_Account Table

Attribute	Data Type	Remarks
user_id	integer	Primary key, User account id
emp_id	integer	Employee no of the user
user_name	varchar(50)	Name of the user
passwd	varchar(25)	Password
ucategory_id	integer	User category that the user belongs to

Data Dictionary

Term	Type	Purpose
Director(PC)	Actor	Director of the product certification division
Clerk(PC)	Actor	Clerk product certification division
Project officer	Actor	Executive officer who handle the project files under product certification division
Auditor	Actor	Executive officer who can deal with product certification audits in Sri Lanka Standards Institution
Project file	Attribute	File with 'SLS' mark application and related document
Post 'SLS'	Attribute	Project for which 'SLS' mark has been granted
Free 'SLS'	Attribute	Project for which 'SLS' mark has not been granted
System Administration	Use Case	The functionality which describes the system administrator's activities.
Manage application Information	Use Case	The functionality which describes the adding, editing, deleting of applicant information.
Manage 'SLS'mark holders Information	Use Case	The functionality which describes the adding, editing, deleting of 'SLS' mark holders information.
Annual fee	Use Case	Fee which is made by 'SLS' mark holder to Sri Lanka Standards Institution annually for the using of 'SLS' mark on product
Nominate	Method	The functionality which describes assigning the auditor for audits.
Permit	Attribute	Certificate or license issued by Sri Lanka Standards Institution to client granting permission to use "SLS'

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'SLS' mark	Use Case	Certification mark which is issued as the third party guarantee on product
Audit plan	Attribute	It is a plan repaired to carry out the audits in 'SLS' mark holders' place in quarter basis
Audit schedule	Attribute	Schedule prepared to carry out the audit accordingly
View / Print Reports	Use Case	The functionality which describes viewing and getting print outs of repots.
Project file number	Attribute	Number which is given to recognized the project files .
Standards	Attribute	International or national level booklet prepared defining some selections on considered scope.
Standards Number	Attribute	Number given for the National or International standards

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