



AKSUM UNIVERSITY

COLLEGE OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF COMPUTING TECHNOLOGY

PROGRAM: - INFORMATION SYSTEMS

PROJECT TITLE: Property Administration System

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Table of Contents

Chapter Five	1
5. Implementation	1
System Description	1
Modules and their methods	1
The System Development Tools	2
System Implementation.....	3
The Prototype	4
5.1. CODE REVIEW AND TESTING.....	11
5.1.1 Unit Testing	11
5.1.2. Integration Testing.....	26
CONCLUSION.....	32

Figure 1: registration interfaces for employee who has no account.....	5
Figure 2: login interfaces for all employees who have account	6
Figure 3: property requesting interfaces	7
Figure 4: property registration interfaces.....	8
Figure 5: search property interfaces that is registered	9
Figure 6:property transfer interfaces	10

Table 1 :Test use case for login.....	25
Table 2 :Test case for create account	26

Chapter Five

5. Implementation

Implementation is the stage of a project during which the design of a system is tested, debugged and made operational. So it is the most crucial stage in achieving a successful new system and in giving the users confidence that the new system will work and be effective.

System Description

Implementation of this project is the step where all the proper planned activities are put into action. Usually this project implementation process involves Manage account, register property, generate report, request property, Approve request, approve transfer, transfer property, search property, Request purchase, Request disposal, approve disposal. Project managers and sometimes project team members are committed to controlling and monitoring project implementation.

- **Modules and their methods**

This project consists of different modules. Those modules are:-

- **Account Management module:** In this module, the overall account management will be done. And also the administrator is creating the account for all the employees and the administrator perform also edit, and update the employee account.
- **Log in module:** the administrator provides the login form to enter username and password to users
- **Report Generate module** in this module generate the property which are transferred, and registered. The properties are generated by the store man.
- **Requisition module:** in this module the properties are requested by the model 20 form from the system which includes request purchase, request property request disposal.
- **Registration module:** in this module the properties and the users are registered by store man and system administrator respectively.
- **Search module:** this module the store man search any information about the properties those inserted to the database by the property code.

- **Approval module:** In this module, department head, college dean, president/ vice president makes approval which includes approve request, approve transfer, approve disposal.
- **Transfer property module:** The transfer module also done when the user is take some property from the store man and he/she fill the form when and what type of item is taken and when he/she need to transfer the property it will also fill the form and then the transferred property is transferred to the users.

The System Development Tools

- **Development Editor Tools**
 - Notepad++
 - WAMP, Server (Windows Apache, My SQL PHP) (front end).
- **Markup and Scripting Languages**
 - **JavaScript (JS)** is a dynamic computer programming language that most commonly used as part of web browsers, whose implementations allow client-side scripts to interact with the user.
It can be used to validate the input. Data entered informs should be validated before it is processed.
 - **PHP (Hyper Text Pre Processor):** is a widely-used, open source, general-purpose, server-side scripting language that is especially suited for web development but also used as a general-purpose programming language.
 - **HTML** or HyperText Markup Language: is the standard markup language used to create web pages.
 - **WAMP server:** is a free and open source cross-platform web server solution stack package, consisting mainly of the Apache HTTP Server, MY SQL database, and interpreters for scripts written in the PHP and Perl programming languages.
 - **MySQL :**is a relational database management system (RDBMS), and ships with no GUI tools to administer MySQL databases or manage data contained within the databases.

System Implementation

As we see on the previous title system description there are many modules and those functionalities that contains many classes inside them and those classes are briefly described below: -

- **Log in module:**
 - Employee login
- **Registration module:**
 - Property registration
 - Employee registration
- **Approve module:**
 - Approve request
 - Approve transfer
 - Approve disposal
 - Approve purchase
- **Report Generate module:**
 - Report for property registration
 - Report for property transfer
- **Manage account module:**
 - Create employee account
 - Edit employee account
- **Requisition module:**
 - Request purchase
 - Request property
 - Request disposal
- **Transfer property module:**
 - Transfer property
- **Search module:**
 - Search property

The Prototype

One full flow of events with desired screen shots that describe the full of events that describes the system.

This web based application system has series of flow steps one of the flowing step is:

1. The first action or step for this web based application is online employee registering to the system with User name and password.
2. Secondly the employee has given login form to access his privilege employee page.
3. In the third the employees fill the form and send the request when she or he want the property or disposed property.
4. In the fourth step the one who has responsibility to the approve request makes approvment.
5. In The fifth step the store man registers property that is purchased by in the manual case.
6. Then the store man searches the property by property code and transfer to employees or users who initially send the request.
7. Finally the property receipted by the user.

Employee Registration Form

*First Name:

*Midle Name:

*Last Name:

*User Name:

*Password:

*ConfirmPassword:

*Phone Number:

*Email Address:

*Gender: ☒ Male ☐ Female

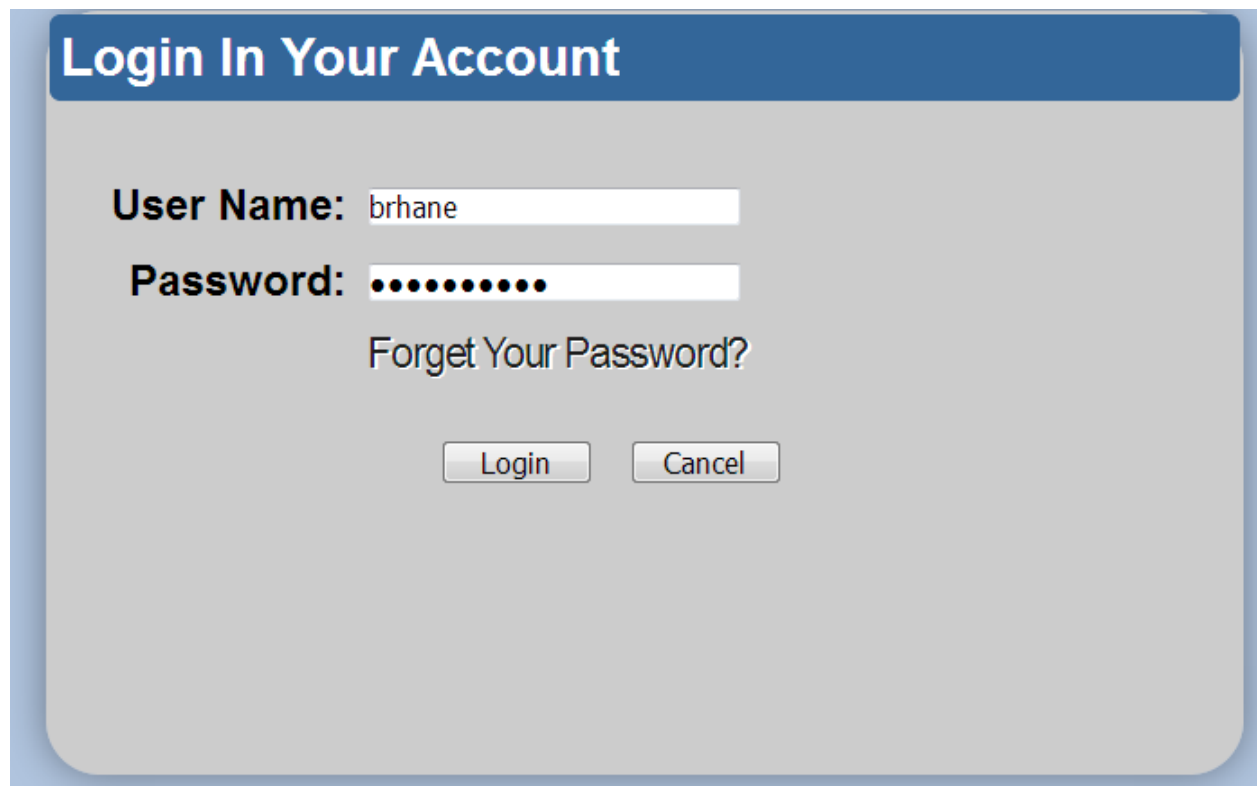
* Brith Date:

*Salary:

*Position:

*Department:

Figure 1: registration interfaces for employee who has no account



The image shows a login window titled "Login In Your Account". It features a "User Name:" label followed by a text input field containing "brhane". Below this is a "Password:" label followed by a password input field represented by ten dots. To the right of the password field is a link that says "Forget Your Password?". At the bottom of the form are two buttons: "Login" and "Cancel".

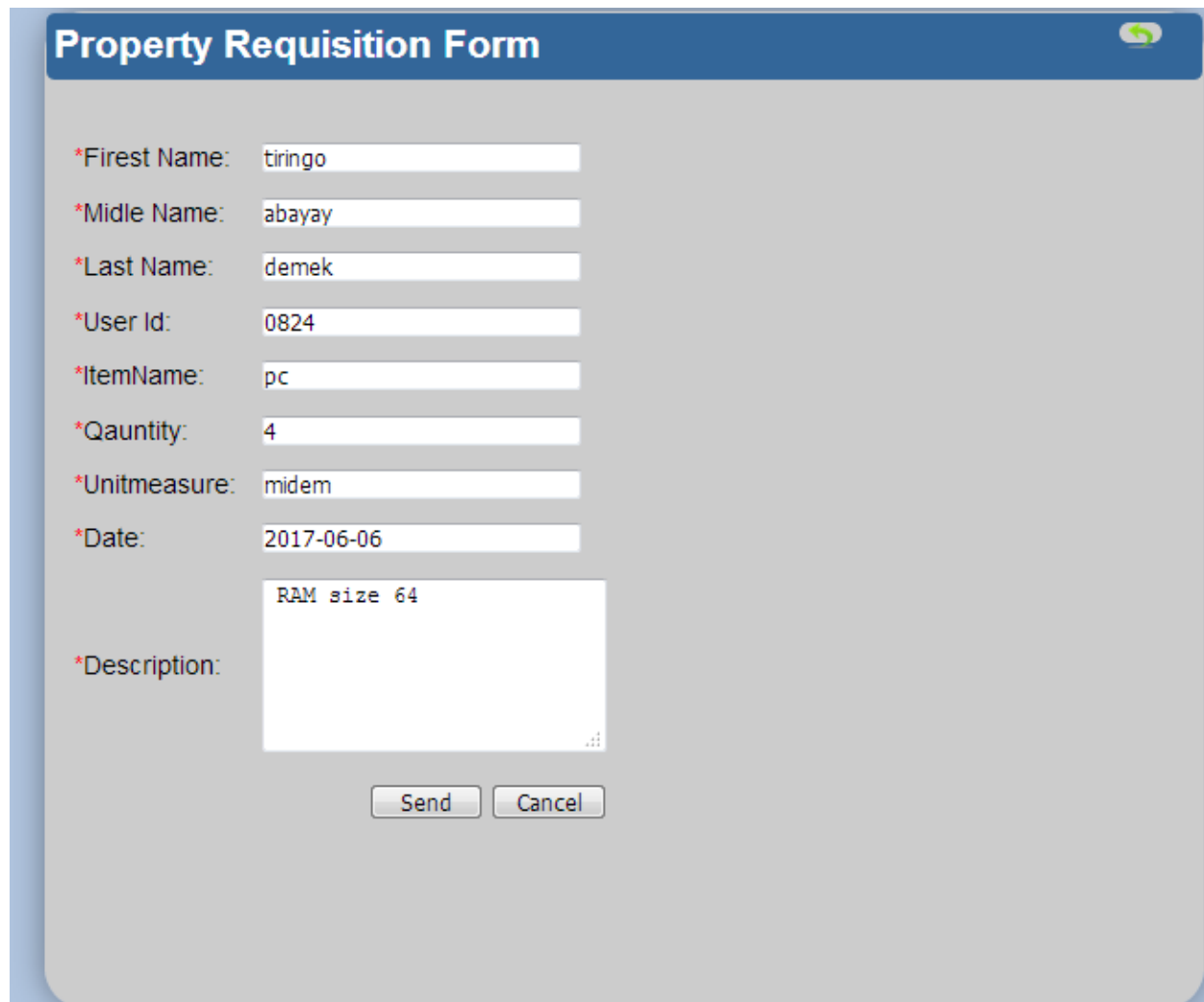
Login In Your Account

User Name:

Password:

[Forget Your Password?](#)

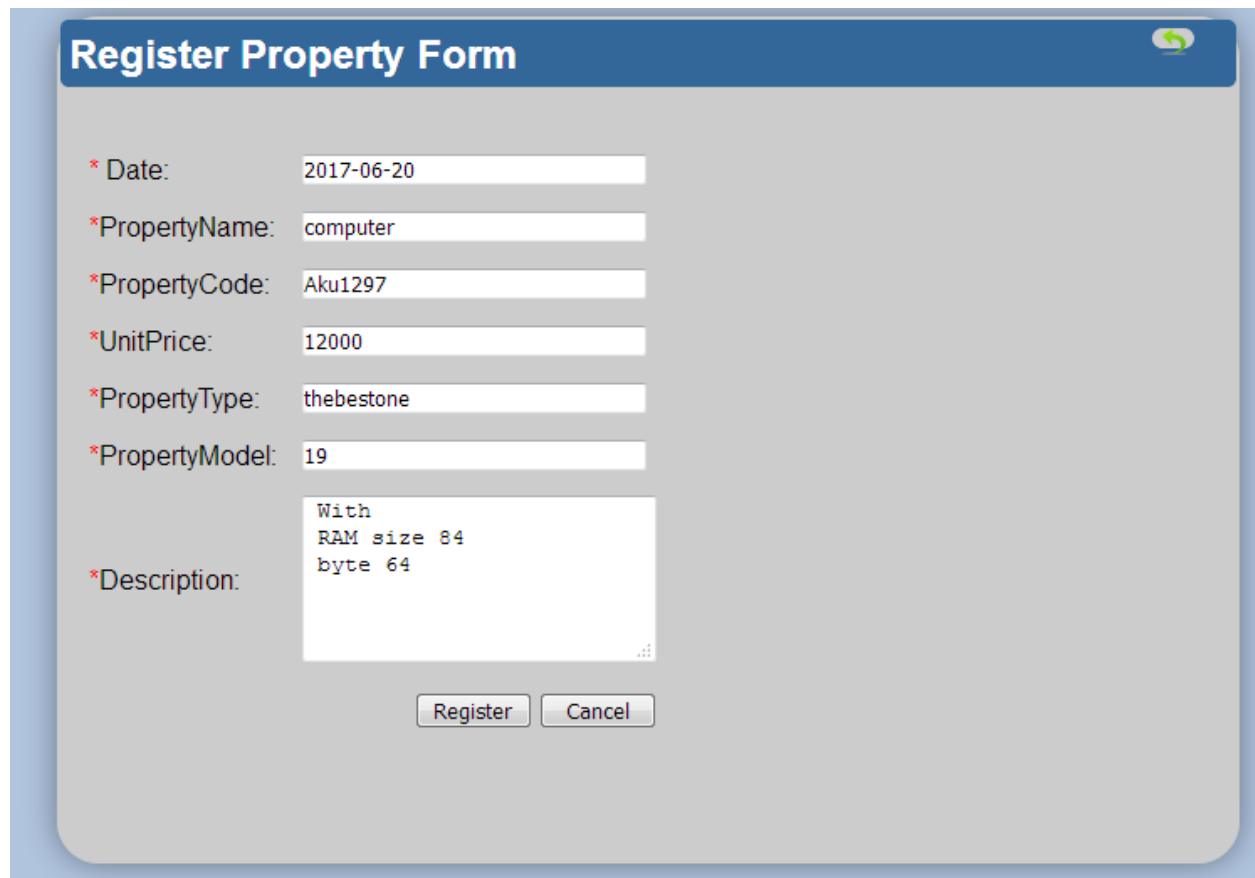
Figure 2: login interfaces for all employees who have account



The image shows a web-based form titled "Property Requisition Form" with a blue header bar. The form contains several input fields, each preceded by a red asterisk indicating a required field. The fields are: "Firest Name" (with the value "tiringo"), "Midle Name" (with the value "abayay"), "Last Name" (with the value "demek"), "User Id" (with the value "0824"), "ItemName" (with the value "pc"), "Qauntity" (with the value "4"), "Unitmeasure" (with the value "midem"), and "Date" (with the value "2017-06-06"). Below these is a larger text area for "Description" containing the text "RAM size 64". At the bottom of the form are two buttons: "Send" and "Cancel". A small green icon is visible in the top right corner of the header bar.

Field Label	Value
*Firest Name:	tiringo
*Midle Name:	abayay
*Last Name:	demek
*User Id:	0824
*ItemName:	pc
*Qauntity:	4
*Unitmeasure:	midem
*Date:	2017-06-06
*Description:	RAM size 64


Figure 3: property requesting interfaces



The image shows a web-based form titled "Register Property Form" with a blue header bar. The form contains several input fields, each preceded by a red asterisk indicating a required field. The fields are: "Date" with the value "2017-06-20", "PropertyName" with "computer", "PropertyCode" with "Aku1297", "UnitPrice" with "12000", "PropertyType" with "thebestone", and "PropertyModel" with "19". The "Description" field is a text area containing the text "With RAM size 84 byte 64". At the bottom of the form are two buttons: "Register" and "Cancel". A small green circular icon with a white arrow is located in the top right corner of the header bar.

Field	Value
* Date:	2017-06-20
*PropertyName:	computer
*PropertyCode:	Aku1297
*UnitPrice:	12000
*PropertyType:	thebestone
*PropertyModel:	19
*Description:	With RAM size 84 byte 64

Figure 4: property registration interfaces

Search by Property Code: 

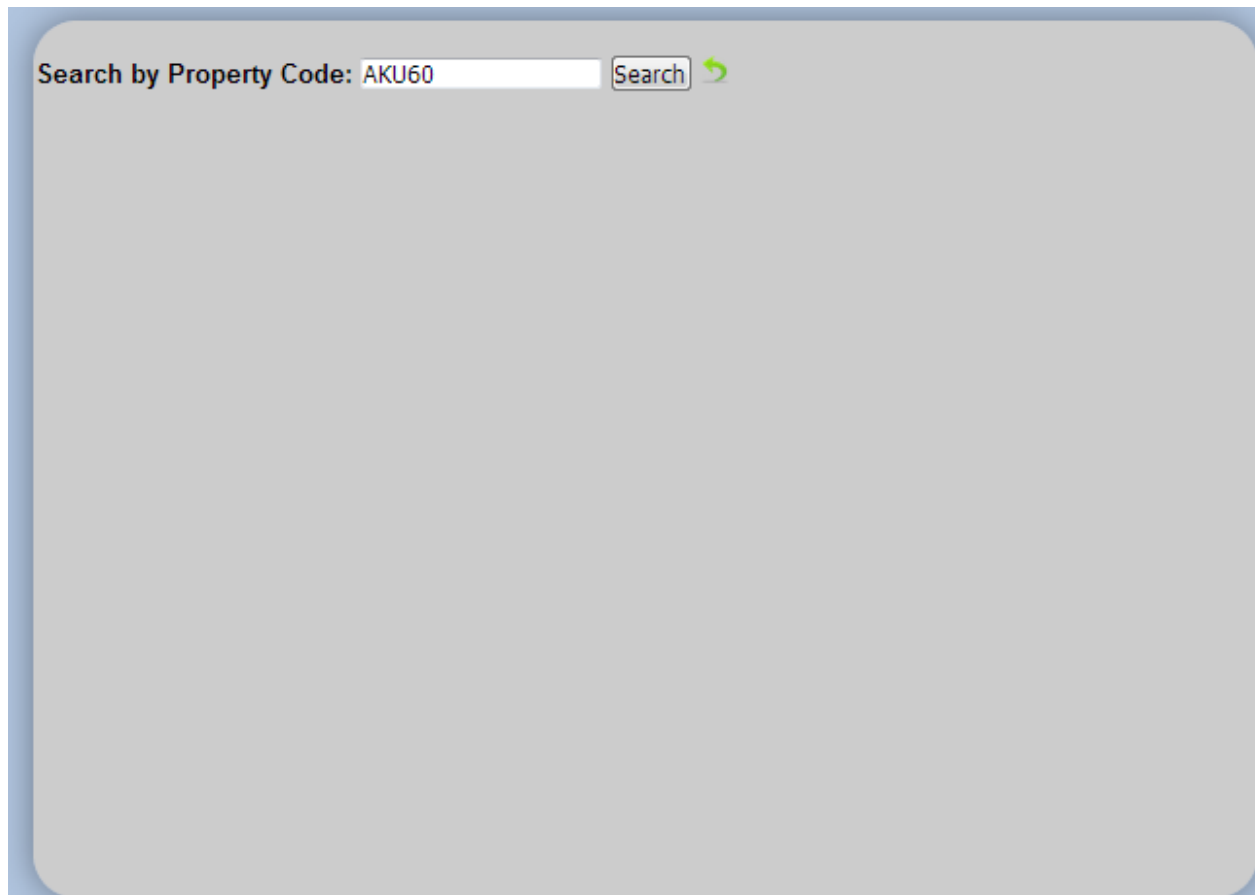


Figure 5: search property interfaces that is registered

Transfer

propoperty code:

Aku987

Register Date:

2017-06-06

Property Name:

harddisk

Unit Price:

5000

Quality:

thebestone

Property Model:

19

Description:

hhhhjghjghjjjhkhkhkh

Figure 6: property transfer interfaces

5.1. CODE REVIEW AND TESTING

The code review shows the part of the code for implementing the functionality and the test design will be done by giving possible combinations of inputs in order to find out what will be the system response for a particular input and compare the expected result with the actual output.

5.1.1 Unit Testing

In the test-design specification, there are criterions for the tests to discover pass/fail. The standard terminologies for pass/fail are:

- If the actual outcome and the expected result are the same, the pass/fail criteria is “pass”
- If the actual outcome and the expected result are different, the pass/fail criterion is “fail”.

Login

Login (Authentication)

The login or the authentication module deals with authorizing users in order to use the system and keep privacy of....

Code Review

The following section shows part of the code from Authentication class for the login

```
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en">

<head>

    <title>Aksum University property Administration system</title>

    <meta name="description" content="free website template" />

    <meta name="keywords" content="enter your keywords here" />

    <meta http-equiv="content-type" content="text/html; charset=utf-8" />

    <meta http-equiv="X-UA-Compatible" content="IE=9" />

    <link rel="stylesheet" type="text/css" href="css/style.css" />

    <script type="text/javascript" src="js/jquery.min.js"></script>
```



```

<script type="text/javascript" src="js/image_slide.js"></script>

<script type="text/javascript" src="calendar.js"></script>

<script>

window.location.hash="no-back-button!!";

window.location.hash="Again-No-back-button!!";//again because google chrome don't insert
first hash into history

window.onhashchange=function(){ window.location.hash="no-back-button";}

</script>

</head>

<style type="text/css">

<script language="JavaScript">

        <!--

        function isNumberKey(evt)

        {

var charCode = (evt.which) ? evt.which : event.keyCode

if (charCode > 31 && (charCode < 48 || charCode > 57))

        return false + alert("Please Enter Only Number for phone");

        return true;

        }

```

[illegible]

</div>

<div id="site_content">

<div class="sidebar_container">

<div class="sidebar">

<div class="sidebar_item">

<body bgcolor=#9494B8>

<h3>Calender</h3>

<script src="css/calander.js" language="javascript"
type="text/javascript"></script>

<h3

<table width="100%" border="0" cellpadding="0" cellspacing="0">

</table>

</script></body>

<table width="215" height="150">

<tr>

<th width="250" height="30" bgcolor="#808080" scope="row"><span
class="style17">USERS LOGIN PAGE</th>

</tr>

</table>

<p> </p>

</div>

</div>

</div>

<div>

<div>

<ul class="slideshow">

</div>

</div>

<div id="content1">

<div class="content_item">

<html xmlns="http://www.w3.org/1999/xhtml">

<body>

```
<div style="background-color:#cccccc;width:550px; height:350px; margin:0 auto;
position:relative; border:2px solid rgba(0,0,0,0); -webkit-border-radius:5px; -moz-border-
radius:5px; border-radius:25px; -webkit-box-shadow:0 0 18px rgba(0,0,0,0.4); -moz-box-
shadow:0 0 18px rgba(0,0,0,0.4); box-shadow:0 0 18px rgba(0,0,0,0.4); margin-top:20px;
color:#000000;">
```

```
<form id="form1" name="login" method="POST" action="Login.php" onsubmit="return
validateForm()">
```

```
<div style="background-color:#336699;border-radius:5px;font-family:Arial, Helvetica, sans-
serif; color:#none; padding:5px; height:30px;">
```

```
<div style="float:center;" ><strong><font color="white" size="5px">Login In Your
Account</font></strong></div>
```

```
</div>
```

```
<table width="350" align="center" height="150px">
```

```
<tr>
```

```
<td colspan="12"><div style="font-family:Arial, Helvetica, sans-serif; color:#none; font-
size:20px;">
```

```
<table cellpadding="10" align="center" cellspacing="10">
```

```
</div></td>
```

```
</tr>
```

```
<tr>
```

```
<th width="400" align="right" scope="row">User Name: </th>
```

```
<td width="400"><label>
```

```
<input type="text" name="username" id="username" autocomplete="off"
placeholder="UserName" size="25"required ="enter your UserName"pattern="[A-Za-z]{3,21}"
```

```

                required x-moz-errormessage="Please Fill Correct User name" >
</label></td>

</tr>

<tr>

    <th align="right" scope="row">Password:</th>

    <td width="400"><label>

        <input type="password" name="password" id="password" placeholder="Password"
size="25" required="pleas fill your password" ></label></td>

        </tr>

        <tr>

            <td><div align="left" size="300" ></div></td>

            <td class='para1_text' width="28px "size="5px" size="3"><a
href="forgetpassword.php"><h6>Forget Your Password? </a></td><br></h6>

        </tr>

        <tr>

            <th height="3" size="30" colspan="12" align="right" scope="row" ><label>

                &nbsp;&nbsp;&nbsp;<input type="submit" name="Submit" value="Login"
style="width:70px" height="30" />

                &nbsp;&nbsp;&nbsp;<input type="reset" name="Submit2" value="Cancel"
style="width:70px" height="30"/>

```

</tr>

</table>

<p> </p>

</form>

<?php

if (isset(\$_POST['Submit']))

{

\$con=mysql_connect('localhost','root','');

mysql_select_db('storem');

\$username=\$_POST['username'];

\$password=md5(\$_POST['password']);

if(! \$con)

{ die('Could not connect: '. mysql_error());

}

\$sql = "SELECT * FROM accou WHERE username='\$username' AND
password='\$password'";

\$result = mysql_query(\$sql);

\$rowCheck = mysql_num_rows(\$result);

\$row=mysql_fetch_array(\$result);

\$en=\$row['enabled'];

```

        if($row['usertype']=='admin'){

            if($en==1)

            {

                $_SESSION['User_id']=$row['User_id'];

echo' <meta content="1;adminpage.php" http-equiv="refresh" />';

                }

            else

            {

echo'<p class="wrong"> Your Account is not active Please contact the
system Admin </p>';

                echo' <meta content="4;login.php" http-equiv="refresh" />';

            }

        }

        else if($row['usertype']=='Storeman'){

            if($en==1)

            {

                $_SESSION['User_id']=$row['User_id'];

                echo' <meta content="1;Storeman page.php" http-equiv="refresh"
/>';

```



```

        }

        else

        {

            echo' <p class="wrong"> Your Account is not active Please contact the
system Admin</p>';

            echo' <meta content="4;login.php" http-equiv="refresh" />';

        }

    }

    else if($row['usertype']=='User'){

        if($en==1)

        {

            $_SESSION['User_id']=$row['User_id'];

            echo' <meta content="1;Userpage.php" http-equiv="refresh" />';

        }

        else

        {

```

```
        echo' <p class="wrong"> Your Account is not active Please contact the  
system Admin</p>';
```

```
        echo' <meta content="4;login.php" http-equiv="refresh" />';
```

```
    }
```

```
    }
```

```
        else if($row['usertype']=='Departmenthead'){
```

```
        if($en==1)
```

```
        {
```

```
            $_SESSION['User_id']=$row['User_id'];
```

```
        echo' <meta content="1;Departmenthead page.php" http-equiv="refresh" />';
```

```
        }
```

```
        else
```

```
        {
```

```
            echo' <p class="wrong"> Your Account is not active Please contact the  
system Admin</p>';
```

```
            echo' <meta content="4;login.php" http-equiv="refresh" />';
```

```
        }
```

```
    }
```

```

else if($row['usertype']=='Collegedean'){

if($en==1)

{

$_SESSION['User_id']=$row['User_id'];

echo' <meta content="1;Collegedean page.php" http-equiv="refresh" />';

}

else

{

echo' <p class="wrong"> Your Account is not active Please contact the
system Admin</p>';

echo' <meta content="4;login.php" http-equiv="refresh" />';

}

}

else if($row['usertype']=='Vicpresident'){

if($en==1)

{

$_SESSION['User_id']=$row['User_id'];

echo' <meta content="1;Vicpresident page.php" http-equiv="refresh" />';

```

```

        }

        else

        {

            echo' <p class="wrong"> Your Account is not active Please contact the
system Admin</p>';

            echo' <meta content="4;login.php" http-equiv="refresh" />';

        }

    }

    else if($row['usertype']=='Financedirectory'){

        if($en==1)

        {

            $_SESSION['User_id']=$row['User_id'];

            echo' <meta content="1;Financedirectory page.php" http-equiv="refresh" />';

        }

        else

        {

            echo' <p class="wrong"> Your Account is not active Please contact the
system Admin</p>';

            echo' <meta content="4;login.php" http-equiv="refresh" />';

```

```

    }

    }

else

{

    echo '<script language="javascript">';

    echo 'alert("Incorrect Username and Password !!"); location.href="login.php";

    echo '</script>';

    }

    }

?>

<p>&nbsp;</p>

</div>

</div>

</div>

</body>

</html>

```

Test Case

| Test case:1 | | | |
|--|---|--|-----------|
| Test Case Name: Login | | | |
| Purpose: To verify (authenticate) authorized users | | | |
| Input | Expected result | output | Pass/fail |
| Valid user name and password combination | The system Successfully accept the user and display the employee page | The system successfully accept the user and display the user employee page | Pass |
| Valid user name and invalid Password | The system displays ” Invalid User Name and/or Password” | The system displays ” Incorrect User Name and/or Password” | pass |
| Incorrect user name and valid Password | The system display” Incorrect User Name and/or Password” | The system display” Incorrect User Name and/or Password” | pass |
| Incorrect user name and Incorrect Password | The system display” Incorrect User Name and/or Password” | The system display” Incorrect User Name and Password” | pass |
| Null user name and Password | The system displays “Please fill username” | The system displays “Please fill username ” | pass |
| User name and null Password | The system displays “Please fill password “ | The system displays “Please fill password” | Pass |

Table 1 Test use case for login

| Test case 2: | | | |
|--|---|--|-----------|
| Test Case Name: Create Account | | | |
| Purpose: To create account | | | |
| Input | Expected result | Output | Pass/fail |
| Valid user name, password , Name, Email | The system Successfully accepts the detail data to create account | The system Successfully accept the user and create their account | Pass |
| Valid user name, password , name and invalid email | The system displays ” Invalid Email | The system displays ” Invalid Email” | Pass |
| Valid user name, name and weak password | The system display” Password strength is weak” | The system display” password strength is weak” | Pass |
| Null user name, password , Role and email | The system display” All information are required” | The system display” All information are required ” | Pass |
| Duplicate user name | The system displays “the username is already available by someone ” | The system displays “ the username is already available by someone ” | Pass |
| Input password as normal text. | The system displays “encrypts the password to database” | The system displays “ encrypts the password to database ” | Pass |

Table 2 Test case for create account

5.1.2. Integration Testing

This section presents the integration testing where the units are tested together to see that they interact correctly. And the linkage between the modules occurs through the usage of the database and the interface subsystem.

Integration and system testing: one's the modules of the software tested the overall system is tested and integrated.

```
<?php
```

```
mysql_select_db('storem');
```

```
mysql_select_db('storem',mysql_connect('localhost','root',''))or die(mysql_error());
```

```
$Fname = $_POST['Fname'];
```

```
$Mname = $_POST['Mname'];
```

```
$Lname = $_POST['Lname'];
```

```
$username = $_POST['username'];
```

```
$phone_number = $_POST['phone_number'];
```

```
$email_address =$_POST['email_address'];
```

```
$Gender = $_POST['Gender'];
```

```
$brith_Date = $_POST['brith_Date'];
```

```
$department = $_POST['department'];
```

```
$salary=$_POST['salary'];
```

```
$password = md5($_POST['password']);
```

```
$confirmpassword = md5($_POST['confirmpassword']);
```

```
$usertype = $_POST['usertype'];
```

```
if($password!=$confirmpassword)
```



```

{

//echo "does not mutch the password";

    echo '<script language="javascript">';

    echo 'alert("does not mutch the password and confirmpassword!!");
location.href="register.php";

    echo '</script>';

}

else if($usertype=='Storeman')

{

$query_Storeman=mysql_query("INSERT INTO accou (Fname,Mname,Lname,username,
password , confirmpassword ,Phone_number, email_address, Gender,brith_Date,department,
salary, usertype) VALUES ('$Fname ',$Mname ',$Lname ',$username ' ,
$password','$confirmpassword', '$phone_number', '$email_address',
'$Gender','$brith_Date','$department', '$salary', 'Storeman' )");

if($query_Storeman==true){

        echo '<script language="javascript">';

        echo 'alert("Storeman is successfully registered"); location.href="register.php";

        echo '</script>';

    }

}

elseif($usertype=='admin')

{

```

```
$query_admin=mysql_query("INSERT INTO accou (Fname,Mname,Lname,username,
password , confirmpassword ,Phone_number, email_address, Gender,brith_Date,department,
salary, usertype) VALUES ('$Fname ',$Mname ',$Lname ',$username ',
'$password','$confirmpassword', '$phone_number', '$email_address',
'$Gender','$brith_Date','$department', '$salary', 'admin' ));
```

```
if($query_admin > 0){
```

```
echo '<script language="javascript">';
```

```
    echo 'alert("admin is successfully registered"); location.href="register.php";
```

```
    echo '</script>';
```

```
}
```

```
}
```

```
elseif($usertype=='User')
```

```
{
```

```
$query_User=mysql_query("INSERT INTO accou (Fname,Mname,Lname,username, password
, confirmpassword ,Phone_number, email_address, Gender,brith_Date,department, salary,
usertype) VALUES ('$Fname ',$Mname ',$Lname ',$username ',
'$password','$confirmpassword', '$phone_number', '$email_address',
'$Gender','$brith_Date','$department', '$salary', 'User' ));
```

```
if($query_User > 0){
```

```
echo '<script language="javascript">';
```

```
    echo 'alert("User is successfully registered"); location.href="register.php";
```

```
    echo '</script>';
```

```

}

}

elseif($usertype=='Financedirectory')

{

$query_Financedirectory= mysql_query("INSERT INTO accou
(Fname,Mname,Lname,username, password , confirmpassword ,Phone_number, email_address,
Gender,brith_Date,department, salary, usertype) VALUES ('$Fname ',$Mname ',$Lname '
,$username ' , '$password','$confirmpassword', '$phone_number', '$email_address',
'$Gender','$brith_Date','$department', '$salary', 'Financedirectory' )");

if($query_Financedirectory > 0){

    echo '<script language="javascript">';

    echo 'alert("Financedirectory is successfully registered"); location.href="register.php";

    echo '</script>';

}

}

elseif($usertype=='Departmenthead')

{

$query_Departmenthead=mysql_query("INSERT INTO accou
(Fname,Mname,Lname,username, password , confirmpassword ,Phone_number, email_address,
Gender,brith_Date,department, salary, usertype) VALUES ('$Fname ',$Mname ',$Lname '
,$username ' , '$password','$confirmpassword', '$phone_number', '$email_address',
'$Gender','$brith_Date','$department', '$salary', 'Departmenthead' )");

```

```

if($query_Departmenthead > 0){

echo '<script language="javascript">';

    echo 'alert("Departmenthead is successfully registered"); location.href="register.php";

    echo '</script>';

}

}

elseif($usertype=='Collegedean')

{

$query_Collegedean=mysql_query("INSERT INTO accou (Fname,Mname,Lname,username,
password , confirmpassword ,Phone_number, email_address, Gender,brith_Date,department,
salary, usertype) VALUES ('$Fname ',$Mname ',$Lname ',$username ' ,
$password',$confirmpassword', '$phone_number', '$email_address',
'$Gender','$brith_Date','$department', '$salary', 'Collegedean' ));

if($query_Collegedean > 0){

echo '<script language="javascript">';

    echo 'alert("Collegedean is successfully registered"); location.href="register.php";

    echo '</script>';

}

}

elseif($usertype=='Vicpresident')

```

```
{
```

```
mysql_query("INSERT INTO accou (Fname,Mname,Lname,username, password ,
confirmpassword ,Phone_number, email_address, Gender,brith_Date,department, salary,
usertype) VALUES ('$Fname ' ,'$Mname ' ,'$Lname ' ,'$username ' ,
'$password','$confirmpassword', '$phone_number', '$email_address',
'$Gender','$brith_Date','$department', '$salary', 'Vicpresident' )");
```

```
{
```

```
echo '<script language="javascript">';

    echo 'alert("Vicpresident is successfully registered"); location.href="register.php";

    echo '</script>';

}}

?>
```

CONCLUSION

Property administration system for Aksum University currently manually operated Because of this the data base may not be flexible being static one, it becomes hard to search (retrieve) certain things and also it occurs duplication of data due to this the data or the information is difficult to search. so we have tried to solve this manual operation to automated and We've learned a lot by designing and implementing the Web Application Framework .

Generally we developed almost all the functionalities of the proposed *Property administration system* for Aksum University.

