"E-Tender system"

Final Year Project

B.Sc. Software Engineering

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A project report submitted in partial fulfillment of the requirements for the B.Sc. Software Engineering

Declaration

We hereby declare that this project, neither in part nor in full, has been copied from any source of information, except where cited; hence, acknowledged. It is further declared that this project, in its entirety, is a product of our personal efforts, under the sincere guidance of our supervisor. No portion of the work being presented here in, has been submitted to this or any other university, institute, or seat of learning, in support to any piece of writing for bestowment of any other degree of qualification.

Abstract

E-tendering is carrying out tradition tendering process in an e-form using the internet. We believe that to improve the performance of e-tender services over the internet, it is important to not only measure the profit also completing the task in time account for plenty if a task is aborted or discarded. If a tender tendering task is deemed to miss its deadline with no positive semantic gain, a better choice should be one that can detect it and discard as soon as possible. The result show that our approach outperforms our scheduling schemes in optimizing profit plenty for consumers and provider, leading to high successful job execution and fair profit allocation.

Acknowledgements

All praise to the Almighty Allah, the most Merciful and the most gracious one – whose guidance always remained with us at every moment of our lives, especially during this project in the form of knowledge and courage.

*We would like to express our greatest appreciation to our supervisor, **Engr. Afzal Ahmed**, for her encouragement, guidance and support during our studies at the Mirpur University of Science and Technology. Without her instruction and assistance, this thesis would not have been completed.*

We also thank our family and friends for their understanding and encouragement throughout these years.

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Chapter-1   Introduction

E-Tender is a Web-based Application for applying and processing the tenders. Anyone can apply for any tender available on website.. The purpose of the system is to make tender publishing online. As a part of it, tender data is recorded along with particulars of the products, their specifications and conditions. Tenders published will be visible to the visitors of the website till the closing date of tender. Many high level enterprises handle large projects of government and other private enterprises. In all such projects thousands of employees would be working on them. Such enterprises require purchases from various vendors for different purposes. The employees float tenders globally by advertising in reputed newspapers. Advertising in newspapers involves lot of cost, searching in newspapers is time-consuming, communication gap between buyers and suppliers, receiving bids and finalizing tenders takes a lot of time. So we make this whole process of tendering online which is efficient   and   less   time   consuming.

1.1) Goals

  The Goals & objective of e-tender is to enhance the efficiency and transparency in public procurement through the implementation of a comprehensive, end- to-end e-tender solution and to route the entire public procurement activity through such system in a phased manner. Efficiency in handling public procurement **is** enhanced through automation where as in the e-tender, system shall be able to maintain a clear/ unambiguous picture of e-tender activities on a real-time basis. Through e-tender in public procurement, our prime objective is to introduce transparency, cost savings and reduced inventory cost. E-tender ensures that the Government and the supplier community shall have an equal and fair access to opportunities advertised online.

1.2) Motivation

In the current manual Online Tender Management System all the works need to be completed manually. The administration will look after the paper advertisement work, evaluation work of each and every document, sending and receiving the proposals and much more. To make an interactive system, data validation checkup will be performed by the browser side, suppliers and administration will be provided with download and print facility.

1.3) Method

We used incremental model in our project because the work can be done in modules. Also we have already completed the SRS document, Database and the interface. The PHP must be installed. For the database handling MYSQL must be installed. These products are open source products. The final application must be packaged in a set up program, so that the products can be easily installed on machines.

1.4) Overview

This system provides an online tendering service for different users. This is a fully automated service where buyers and suppliers deal directly with each other. This website simply facilitates and manage the tender process in a simple manner for all users. It helps to reduce cost while maintaining timeliness and quality. It provides the centralized process to help organizations improve efficiencies and accountability while reducing traditional tendering cost.

1.5) Report Overview

Chapter-2   Background and Problem Statement

Historically, there is a considerable exchange of information between various parties during a tendering processes, where accuracy and efficiency of documentation is critical. Traditionally this process is either paper-based or via number of stand-alone, non-compatible computer systems, usually costly to both client and contractor.

2.1) Introduction

The purpose of this system is to provide interface between buyers and sellers. It is a website to make an advertisement about tender and this system will be more helpful to get the better scope for tender advertisement.

2.1.1) Existing System:-

Many high level enterprises handle large projects of government and other private enterprises. In all such projects thousands employees would be working on them. Such enterprise requires purchases from various suppliers for different purposes. The employees float tenders globally by advertising in reputed newspapers.

Disadvantages:
- Advertising in newspapers involves lot of cost.
- Once the paper is lost, you cannot view them.
- Searching in newspapers is time-consuming.
- Communication gap between buyers and suppliers

- Receiving bids and finalizing tenders takes a lot of time.

2.1.2) Proposed System:-

The proposed system overcomes the drawbacks of the previous system. Here, the entire process of tendering is done online.

- Buyers publish tenders.

- Tenders consist of product name, its specifications, quantity etc.

- Suppliers log in and view the tender details.

- If the supplier is new, he registers in the website.

- If interested, supplier bids for the product.

Advantages:

- No cost for advertising in newspapers.
- Tenders can be viewed anywhere and anytime.
- Bidding through online saves a lot of time.

2.2) Literature Review

Over the last couple of years, e-Tender has received tremendous attention from researchers and practitioners alike. However research on e-Tender is still hardly and scattered. It is argued that supply market characteristics and product characteristics can explain emergence of various e-Tender systems. Further these e-Tender systems have different impact on inter organizational relationship. However these impacts are moderated by adoption and implementation risks. [2]

2.3) Problem Statement

In the current manual Online Tender Management System all the tasks need to be completed manually. The administration has to look after the paper advertisement work, evaluation work of each and every document, sending and receiving the proposals and

much more. To make an interactive system, data validation checkup will be performed by the browser side, suppliers and administration will be provided with download facility.

Chapter-3   Project Management

E-tendering system is relatively more technical solution. It involves uploading tender documents on to a secure website with secure login, authentication and viewing terms and condition. A simple e-tendering solution may be a space on a web server. Users are able to download tenders to spreadsheet and compare manually, but in an electronic format. Such solutions can offer valuable improvements to paper-based tendering.

3.1) Approach

We use incremental model in our project because the work can be done in modules. Also we have already completed the SRS document, Database and the interface The PHP must be installed. For the database handling MYSQL must be installed. These products are open source products. The final application must be packaged in a set up program, so that the products can be easily installed on machines.

3.2) Initial Project Plan
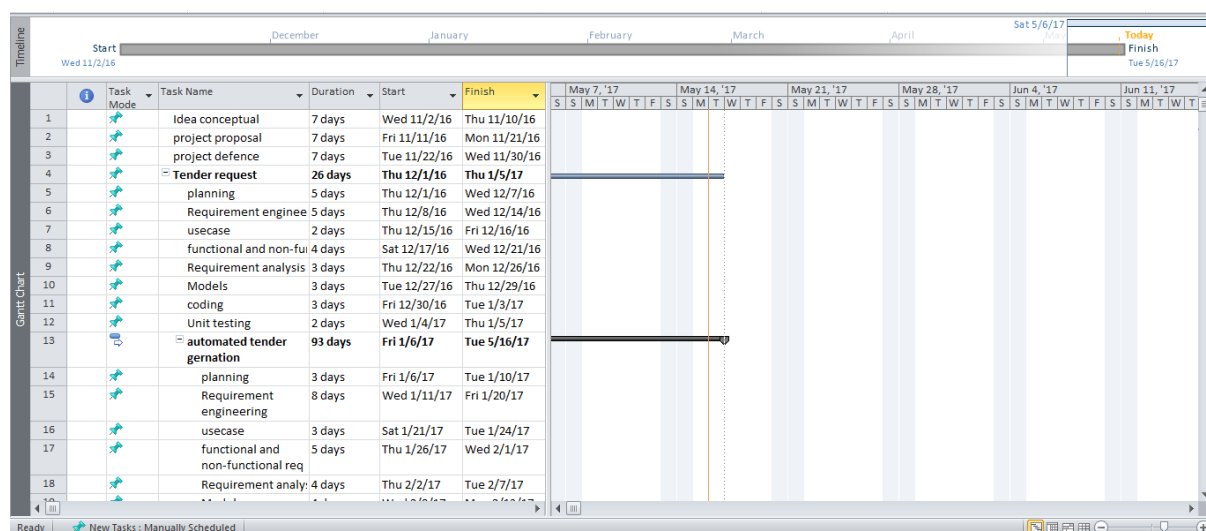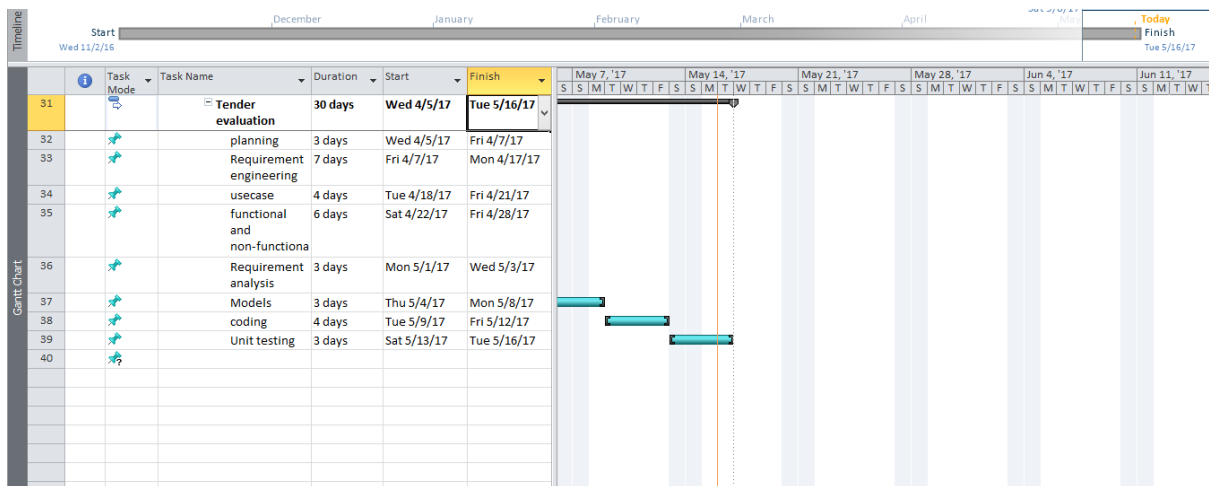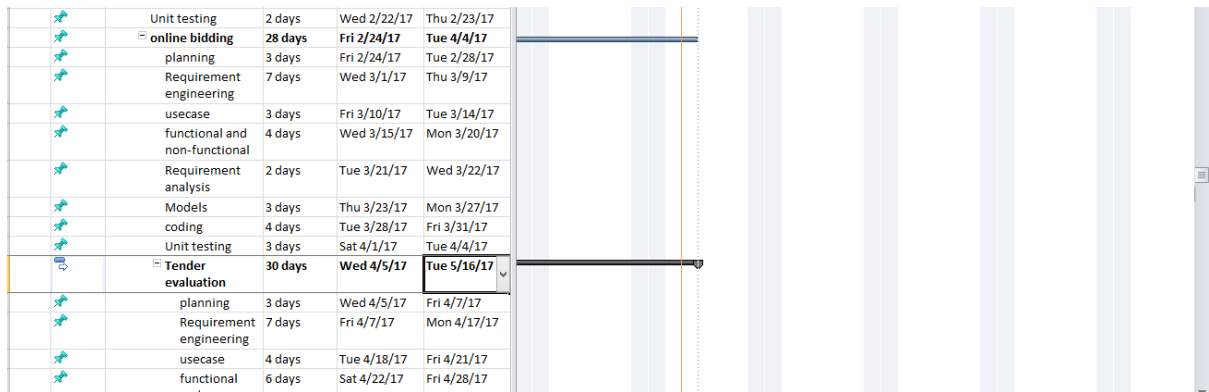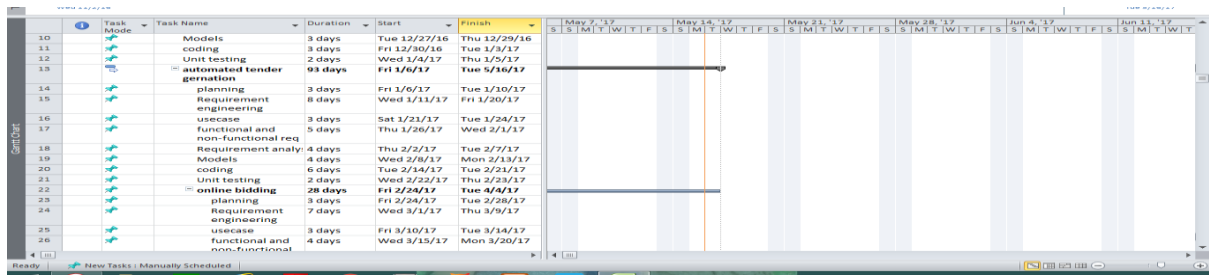
3.3) Problems and Changes to the Plan

3.4) Final Project Record
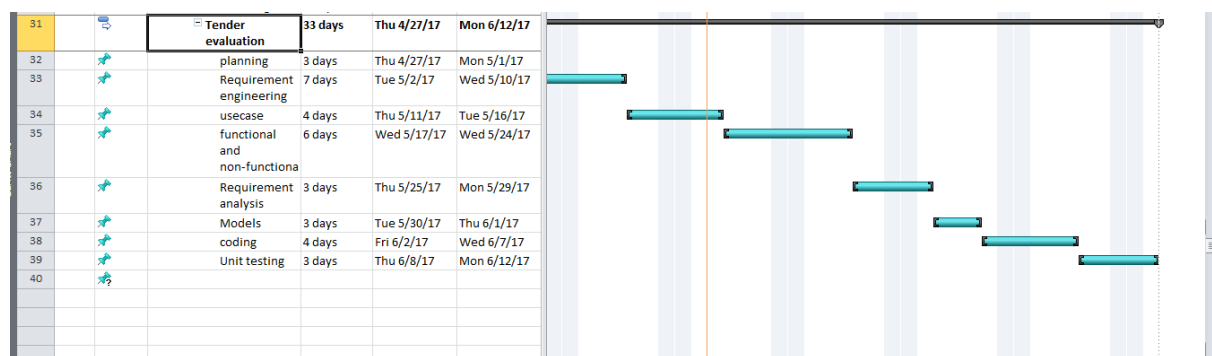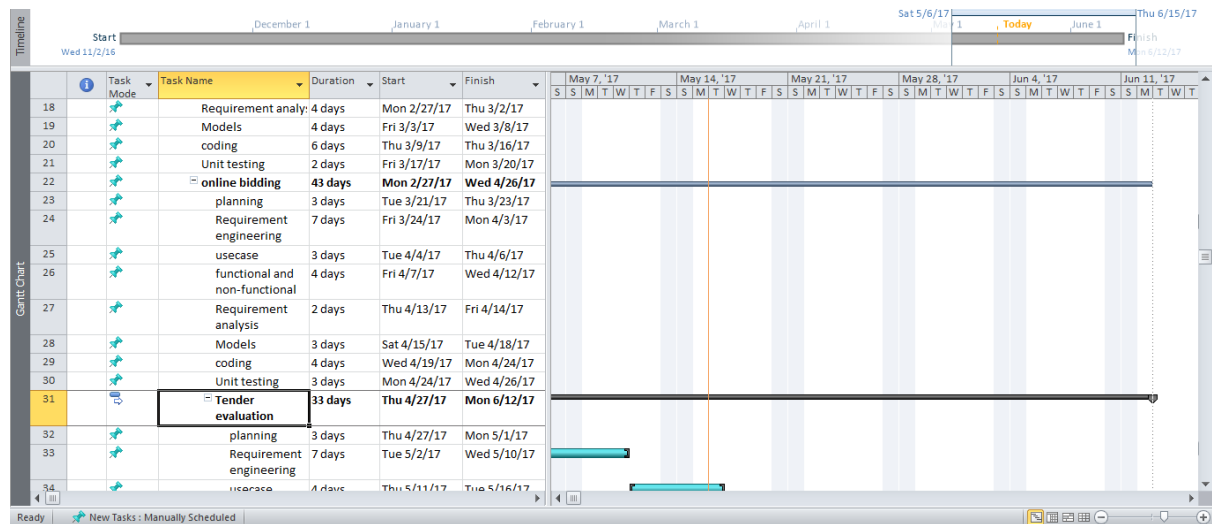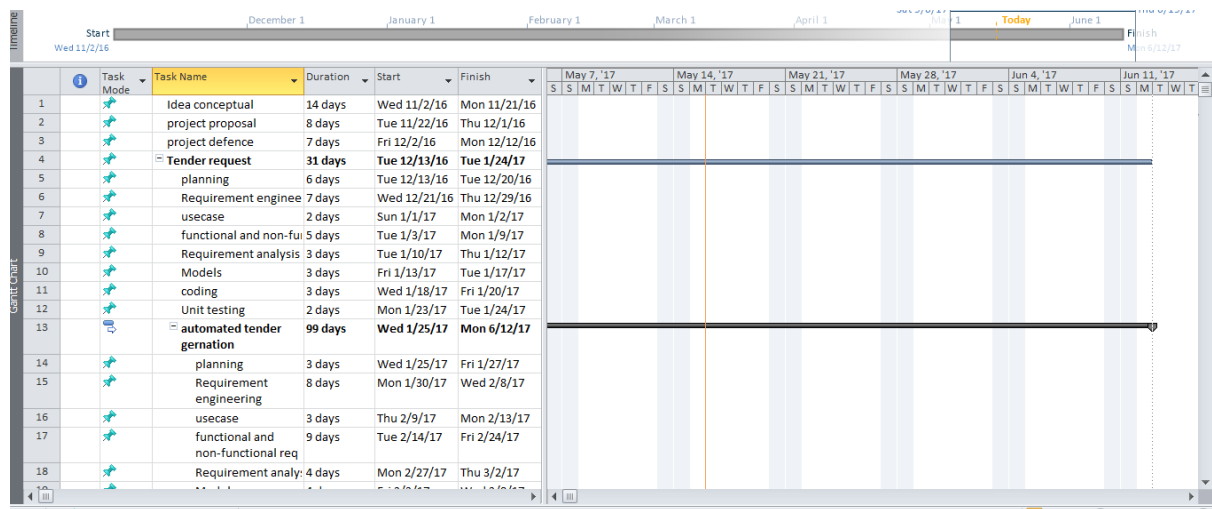
Chapter-4 Analysis

4.1) Introduction:

The step in analysis is to verify the feasibility of the proposed system. "All projects are feasible given unlimited resources and infinite time". But in reality both resources and time are scarce. Project should be confirmed to time bounce and should be optimal in there consumption of resources. This places a constant approval of any project.

Feasibility which is applied to **E-Tendering** pertains to the following areas:

- Technical feasibility
- Operational feasibility
- Economic feasibility

4.1.1) TECHNICAL FEASIBILITY:

To determine whether the proposed system is technically feasible, we considered the technical issues involved behind the system. **E-Tendering** uses the web technologies, which

is rampantly employed these days worldwide. The world without the web is incomprehensible today. That goes to proposed system technically.

4.1.2) OPERATIONAL FEASIBILITY:

To determine the operational feasibility of the system we considered the awareness level of the users. This system is operationally feasible since the users are familiar with the technologies and hence there is no need to gear up the personnel to use system. Also the system is very friendlyto use.

4.1.3) ECONOMIC FEASIBILITY:

To decide whether a project is economically feasible or not, we haveconsidered various factors as:

- Cost benefit analysis
- Long-term returns
- Maintenance cost

The proposed **E-Tender** is computer based. It requires average computing capabilities and access to internet, which are very basic requirements and can be afforded by any organization hence it doesn't incur additional economic overheads, which renders the system economically feasible.

4.2) Problem Modelling

4.2.1) Admin use case diagram:
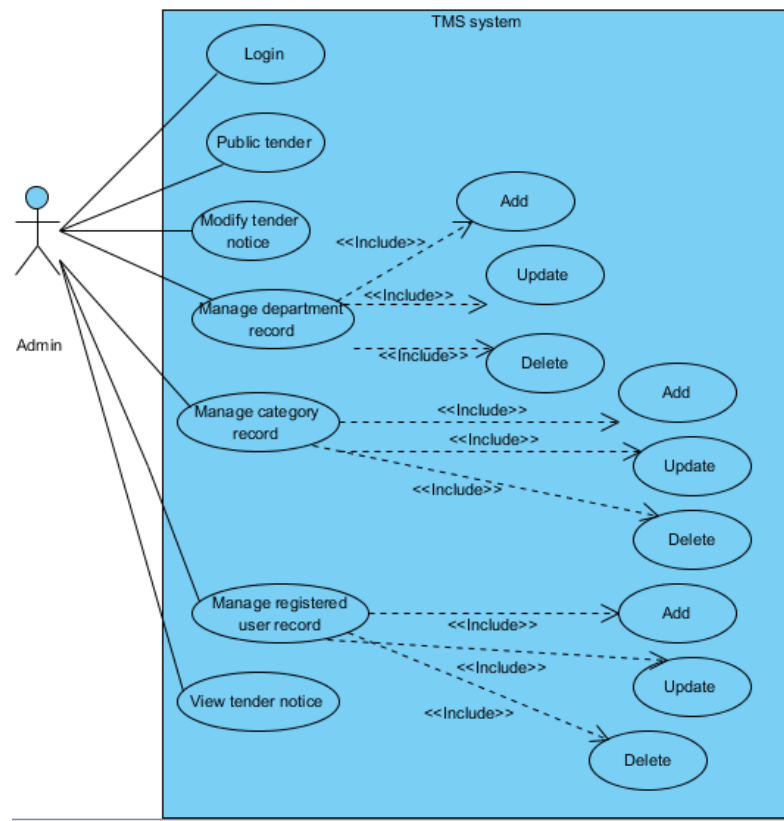
4.2.2) registered user use case diagram:
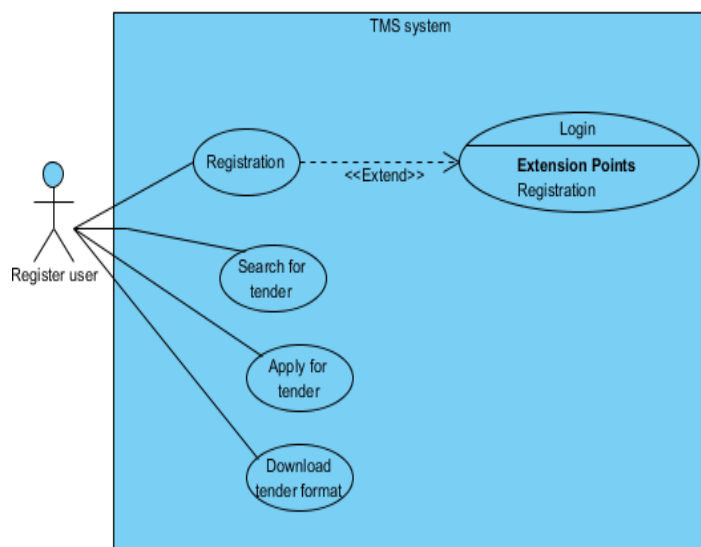
4.2.3) visitor use case diagram:

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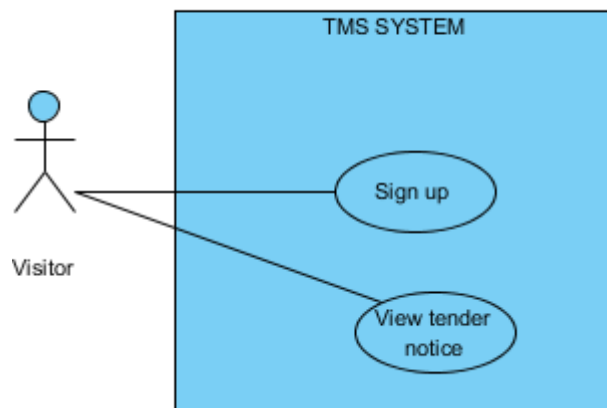
4.2.4) Data entry operator use case diagram:
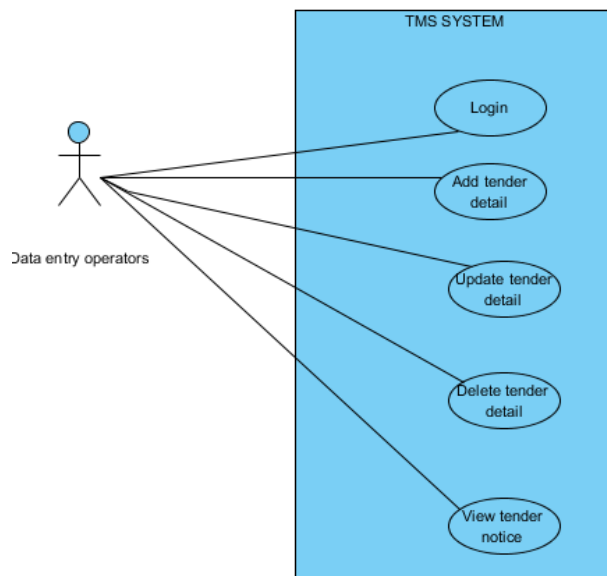
4.3) Functional Requirements

4.3.1) Requirement specifications:

4.3.1.1)   Registration

ID: FR1

Description and priority:

User will have to register himself before using system.

Stimulus/Response sequences:

When the user will enter the URL, main page will open then he will click registration button to register himself.

Functional requirements

REQ-01: The system shall register the user by using personal information from user.

REQ-02: The system shall authenticate the user by using user name and password.

4.3.1.2) User log In

ID: FR2

Description and priority:

User will have to login into the system for applying tender.

Stimulus/Response sequences:

When the user will enter the URL, main page will open then he will click login button to get access to apply for tender.

Functional requirements

REQ-01: The user shall provide the user ID.

REQ-02: The user shall provide the password for its user ID.

4.3.1.3) Admin login

ID: FR3

Description and priority:

Admin have to login to get access of the system.

Stimulus/Response sequences:

When the user will enter the URL, main page will open then he will click admin login button to get access of the system.

Functional requirements

REQ-01: The admin shall provide the user ID.

REQ-02: The admin shall provide the password of its user ID.

4.3.1.4) Manage registered user record

ID: FR4

Description and priority:

Admin can update, add or delete the registered user information.

Stimulus/Response sequences:

When the user will enter the URL, main page will open then he will click admin login button and then add to manage the information of registered user.

Functional requirements

REQ-01: The admin should provide the user name for managing user's record.

4.3.1.5) Publish tender notice

ID: FR5

Description and priority:

Admin can publish tender on website.

Stimulus/Response sequences:

When the tender notice generated by data entry operator then admin click on publish button to create tender notice.

Functional requirements

REQ-01: The tender should be generated by data entry operator.

4.3.1.6) Modify tender notice

ID: FR6

Description and priority:

Admin can modify tender before publishing to the website.

Stimulus/Response sequences:

When the tender notice generated by data entry operator then admin will modify tender notice.

Functional requirements

REQ-01: The tender should be generated by data entry operator.

4.3.1.7)   Manage department record

ID: FR7

Description and priority:

Admin can update, add or delete the departments.

Stimulus/Response sequences:

When the user will enter the URL, main page will open then he will click admin login button and then add to manage the department record.

Functional requirements

REQ-01: The admin should provide the department name for managing its record.

4.3.1.8)   Manage category record

ID: FR8

Description and priority:

Admin can update, add or delete the category.

Stimulus/Response sequences:

When the user will enter the URL, main page will open then he will click admin login button and then add to manage the department record.

Functional requirements

REQ-01: The admin should provide the department name for managing its record.

4.3.1.9)   Manage tender detail

ID: FR9

Description and priority:

Data entry operator can add, update and delete tender details.

Stimulus/Response sequences:

When the data entry operator will enter the URL, main page will open then he will click login button and then add to manage the tender detail.

Functional requirements

REQ-01: The data entry operator should provide the tender reference for managing details.

4.3.1.10) Apply for tender

ID: FR10

Description and priority:

Registered user can apply for tender on website.

Stimulus/Response sequences:

When the registered user enter the URL, main page will open then he will click login button and then apply for tender.

Functional requirements

REQ-01: The user should be login into the system.

4.3.1.11) Search for tender

ID: FR11

Description and priority:

Registered user can search for tender on website.

Stimulus/Response sequences:

When the registered user enter the URL, main page will open then he will click login button and then search for tender.

Functional requirements

REQ-01: The user should be login into the system.

4.3.1.12) View tender notice

ID: FR12

Description and priority:

Data entry operator can view tender notice after adding tender detail.

Stimulus/Response sequences:

When the data entry operator enter the URL, main page will open then he will click login button and then view tender notice after providing the detail of tender.

Functional requirements

REQ-01: The data entry operator should provide tender detail.

4.3.1.13)   Download tender format

ID: FR13

Description and priority:

Registered users can download tender format from website.

Stimulus/Response sequences:

When the registered user enter the URL, main page will open then he will click login button and then download tender.

Functional requirements

REQ-01: The registered user should login into the system.

4.3.2) Capture "shall" requirements:

Para #	Initial Requirements
1.0	A user "shall" register to the system.
1.0	A user "shall" login to the system.
1.0	A user shall add tender detail.

1.0	Admin shall login to the system.
1.0	A visitor shall check and view tender notice.
1.0	A user shall search for tenders.
1.0	The user shall be able to apply for tender.
1.0	The user shall be able to download tender format from website.
1.0	The system shall logout the user account by clicking logout button.

Table 2-1 Capture shall statements

4.3.3) Allocate requirements:

Para #	Initial Requirements	Use Case Name
1.0	A user "shall" register himself to the system	Registration
1.0	A user "shall" login himself to the system	login
1.0	A visitor shall check and view tender notice	View tender notice
1.0	The user shall be able to search for tenders.	Search tender
1.0	The user shall be able to apply for tender.	Apply for tender
1.0	The user shall be able to download tender format from website.	Download tender format

1.0	The system shall logout the user account by clicking logout button.	Logout

Table 2-2 Allocate requirements

4.3.4) Priorities Requirements:

Para #	Rank	Initial Requirements	Use Case ID	Use Case Name
1.0	Highest	A user "shall" register himself to the system.	UC_1	Registration
1.0	Highest	The user shall be able to apply for tender.	UC_2	Apply for tender
2.0	Highest	Administrator shall be able to publish tender notice.	UC_3	Publish tender
2.0	Highest	Administrator shall be able to update, add or delete registered user.	UC_4	Manage registered user record
2.0	Highest	Administrator shall be able to modify tender notice.	UC_5	Modify tender notice
1.0	Medium	The user shall be able to view tender notice.	UC_6	View tender notice
3.0	Medium	The user shall be able to search for tenders.	UC_7	Search for tender

Table 0-1 Priorities Requirements

4.4) Non-Functional Requirements

4.4.1) Performance Requirements

The system should be compatible enough to hold the general traffic. It should not get hanged or show some other problems arising out due to large no of concurrent users. The system should be fast enough to meet the customer requirement. The high and low temperature should not affect the performance of the device. An uninterrupted action must be performed. Easy tracking of records and updating can be done all the requirements relating to performance characteristics of the system are specified in the section below.

4.4.1.1)   Static requirements:

These requirements do not impose any constraints on the execution characteristics of the system. So they are:

4.4.1.2)   No of terminals;

Software makes use of an underlining database that will reside at the server. While the front end will be available online to the administrator and department.

4.4.1.3)   No of users;

The number of users may vary as software finds applications in almost all departments of the university.

4.4.2) Reliability

The software will not be able to connect to the centralized database in case Department LAN fails or in the event of the server being down due to a hardware or software failure. The application should be highly reliable and it should generate all the updated information in correct order. The system gives right result on search.

System Reliability	
TAG	System Reliability

AMBITION	The reliability of the system
SCALE	The reliability that the system gives the right result on a search.
METER	Measurements obtained from 100 searches during testing.
MUST	More than 98% of the searches.
PLAN	More than 99% of the searches.
WISH	100% of the searches.

4.4.3) Availability

The software will be available to the authorized users of the department. And admin to update or delete users accounts. Any information about the tender should be quickly available from any computer to the authorized user.

System Availability	
TAG	System Availability
AMBITION	The availability of the system when it is used
SCALE	The average system availability (not considering network failing).
METER	Measurements obtained from 1000 hours of usage during testing
MUST	More than 98% of the time
PLAN	More than 99% of the time
WISH	100% of the time

4.4.4) Security

Security of information and integrity of e-Tender system is of paramount importance. The security requirements deals with the primary security. The software should be handled only by the administrator and authorized users. Only the administrator have the right to assign the permission like creating new account and generating new password. Only authorized users can access the system.

Security	
TAG	Login Security
AMBITION	Security of the system from unauthorized users
SCALE	System should not allow unauthorized users to login and change data in database
METER	Measurements obtained by entering wrong user name and passwords 100 times during testing
MUST	99%. Security
PLAN	100% security
WISH	100% security

Chapter-5   Product/System Design

5.1) Introduction

System design is transition from a user oriented document to programmers or database personnel. The design is a solution, how to approach to the creation of a new system. It provides the understanding and procedural details necessary for implementing the system recommended in the feasibility study. Designing goes through logical and physical stages of development, logical design reviews the present physical system, prepare input and output

specification, details of implementation plan and prepare a logical design walkthrough. The database tables are designed by analyzing functions involved in the system and format of the fields is also designed. The fields in the database tables should define their role in the system

5.2) Product Features

Product features are specified below:

5.2.1) Data entry operator

Data entry operator has access to log in to account and will upload request

5.2.2) Visitor

Visitor will search for tender and has access to view tender detail and status.

5.2.3) Registered user

Registered user will log in to his/her account and search tender, give feedback and check tender status.

5.2.4) Admin

Administrator can manage accounts and queries and reply for feedback. He has access to add, delete or update accounts. He can create, delete or manage classes. Can log in to account and manage tender status and notifications. He can manage queries.

5.3) User Interface

1) GUI, with well-designed buttons, textboxes and other components.
2) Notifications are generated.
3) Status update for each tender
4) Standard buttons will be used throughout the system
5) Standard positioning of minimize, close, home, back and back to home will be used
6) Standard format for error message display will be used

5.4) Interfaces to External Hardware and Software

5.4.1) Environment: Dual core or higher

5.4.2) System configuration: 4MB RAM, 100 GB (or higher) Hard Disc

5.4.3) Operating system: Windows 7 and above

Front End	Editor, Html, CSS, Bootstrap
Back end	MYSQL database, Xampp server, Visio(for diagrams)

The PHP must be installed. For the database handling MYSQL must be installed. These products are open source products. The final application must be packaged in a set up program, so that the products can be easily installed on machines.

5.5) Non-Functional Requirements

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METER	Measurements obtained by entering wrong user name and passwords 100 times during testing
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WISH	100% security

5.6) Data Storage

All storage will be saving in MySQL database of this web based application.

5.7) Design Verification

Sequence diagram

Chapter-6 Software Design

6.1) Introduction

In designing the software following principles are followed:

1. **Modularity and partitioning**: Software is designed such that, each system should consists of hierarchy of modules and serve to partition into separate function.

2. **Coupling:** Modules should have little dependence on other modules of a system.

3. **Cohesion:** Modules should carry out in a single processing function.

4. **Shared use:** Avoid duplication by allowing a single module be called by other that need the function it provides.

6.2) Module design:

The major modules of the project are:

1) Automatic tender generation:

In this feature automatic tender will be generated on front end by using data from tender request.

2) Tender request

In this feature request will be generated by each department.
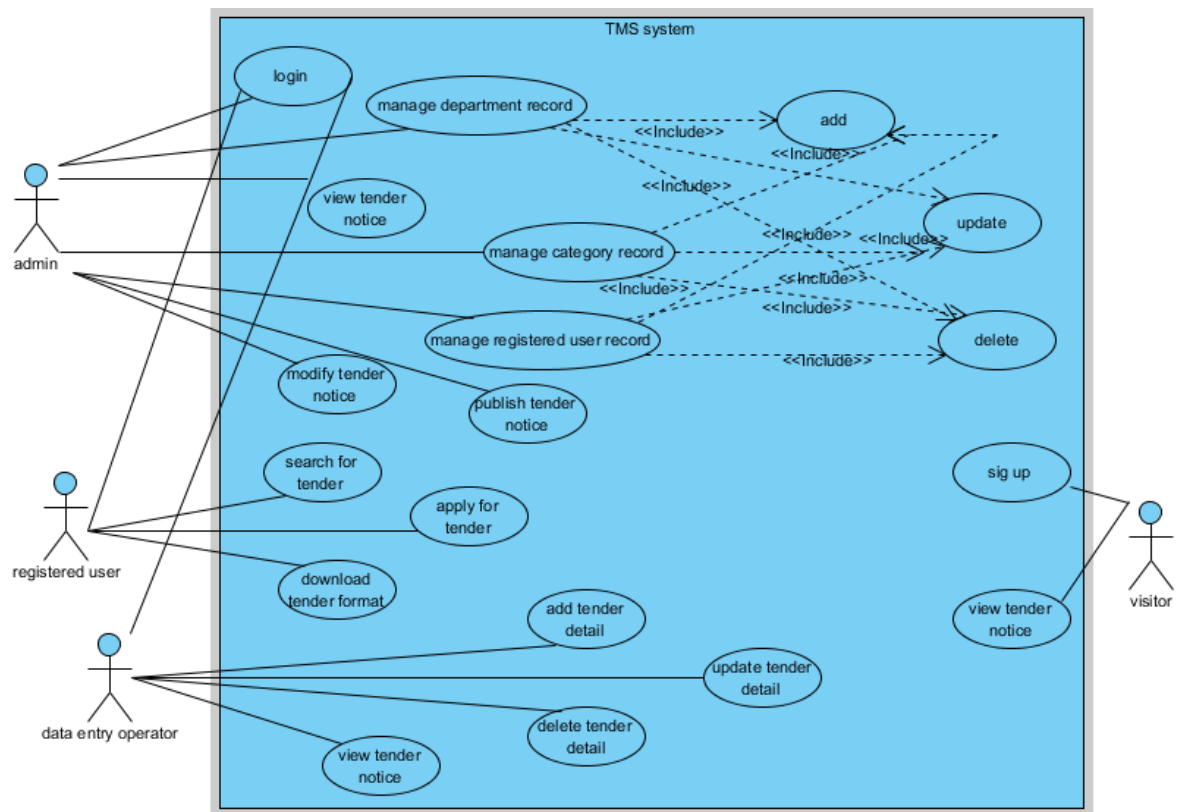
3) Online biding

In this feature bidder will bid on tender provided on front end by admin.

4) Tender evaluation

Tender evaluated on the basis of specific criteria by tender committee and result will be announced.

6.3) High Level Design

6.4) Detailed Design

6.4.1) Scenario name: - Registration

Actors: - visitor

Stimulus/Response sequences:

When the user will enter the URL, main page will open then he will click registration button to register himself.

6.4.2) Scenario name:- User log In

Actorss:- registered user

Stimulus/Response sequences:

When the user will enter the URL, main page will open then he will click login button to get access to apply for tender.

6.4.3) Scenario name:- Admin login

Actors: - admin

Stimulus/Response sequences:

When the user will enter the URL, main page will open then he will click admin login button to get access of the system.

6.4.4) Scenario name :- Manage registered user record

Actors: - admin

Stimulus/Response sequences:

When the user will enter the URL, main page will open then he will click admin login button and then add to manage the information of registered user.

6.4.5) Scenario name :- Publish tender notice

Actors: - admin

Stimulus/Response sequences:

When the tender notice generated by data entry operator then admin click on publish button to create tender notice.

6.4.6) Scenario name :- Modify tender notice

Actors: - admin, data entry operator

Stimulus/Response sequences:

When the tender notice generated by data entry operator and admin will modify tender notice.

6.4.7) Scenario name :- Manage department record

Actors: - admin

Stimulus/Response sequences:

When the user will enter the URL, main page will open then he will click admin login button and then add to manage the department record.

6.4.8) Scenario name :- Manage category record

Actors: - admin

Stimulus/Response sequences:

When the user will enter the URL, main page will open then he will click admin login button and then add to manage the department record.

6.4.9) Scenario name :- Manage tender detail

Actors: - data entry operator

Stimulus/Response sequences:

When the data entry operator will enter the URL, main page will open then he will click login button and then add to manage the tender detail.

6.4.10) Scenario name :- Apply for tender

Actors: - registered user

Stimulus/Response sequences:

When the registered user enter the URL, main page will open then he will click login button and then apply for tender.

6.4.11) Scenario name :- Search for tender

Actors: - registered user

Stimulus/Response sequences:

When the registered user enter the URL, main page will open then he will click login button and then search for tender.

6.4.12) Scenario name :- View tender notice

Actors: - data entry operator

Stimulus/Response sequences:

When the data entry operator enter the URL, main page will open then he will click login button and then view tender notice after providing the detail of tender.

6.4.13) Scenario name :- Download tender format

Actors: - registered user

Stimulus/Response sequences:

When the registered user enter the URL, main page will open then he will click login button and then download tender.
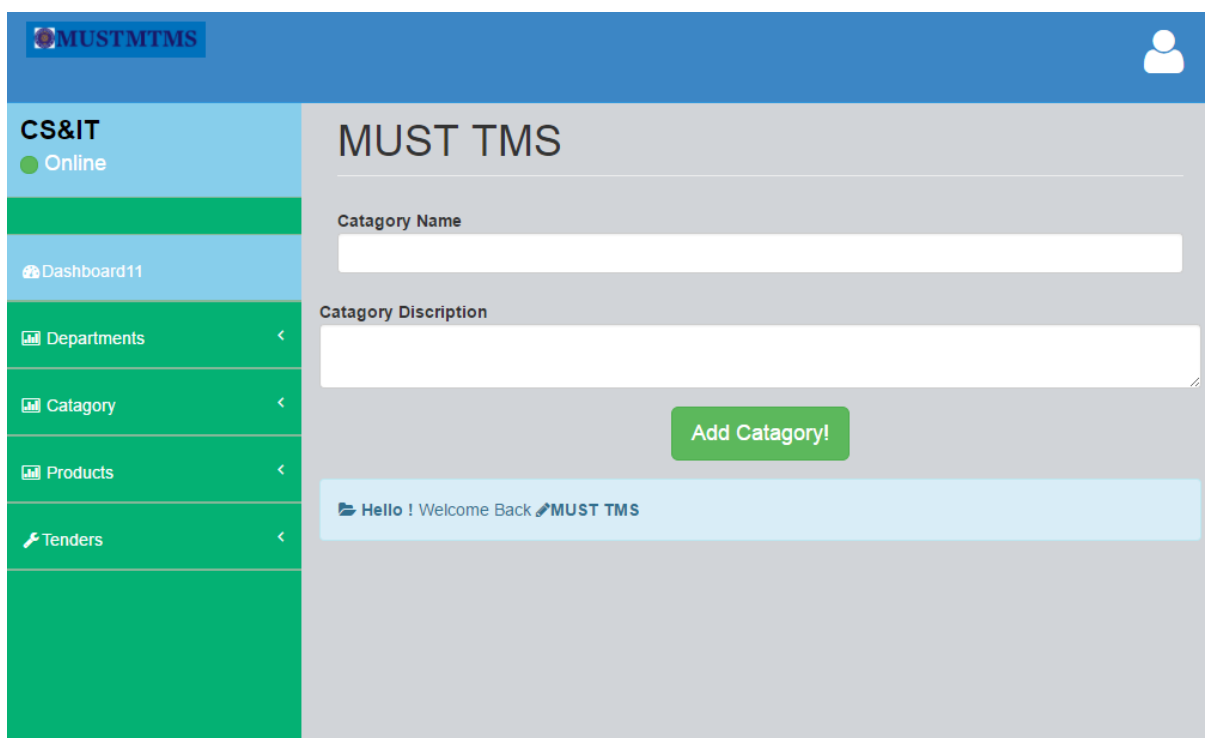
6.5) Design Verification

Summaries how your design satisfies the product/system design requirements. One way is to "walk through "a few key product features, showing how the combination of classes allows the feature to be supported.

Chapter-7   Implementation

7.1) Introduction

We use brackets editor for this to implement coding. Brackets is a free (as in "free speech" and also as in "free beer") source code editor and Notepad replacement that supports several languages. Running in the MS Windows environment. PHP language is uses for coding purposes. Software used for development of this projects will be xampp server which is the package of embedded apache server and MySQL database.

7.2) Coding

Code for add category:

E-Tender system

```
1
2 ▼ <form name="fb" action="catagory.php">
3       <?php  //$username=isset($_SESSION['username']);echo("<input type=hidden name=username value=$username>");  ?>
4
5   </form>
6
7
8
9   <?php include('includes/header.php')?>
10  <?php include('includes/menu.php')?>
11  <?php include('includes/DB.php')?>
12
13
14  <?php
15      /* Query  insert catagory*/
16 ▼ if(isset($_POST['submit'])){
17      $cat_name=$_POST['cat_name'];
18      $cat_desc=$_POST['cat_desc'];
19
20  $query="INSERT INTO `catagory`( `cat_name`, `cat_desc`) VALUES('$cat_name','$cat_desc') ";
21      $result= mysqli_query($connection,$query) or die("insrt query not run");
22
23      echo"<script language=Javascript>";
24          echo"fb.submit()";
25          echo"</script>";
26
27
28  }
29  ?>
30
31
32
33
34
35 ▼ <form action="#" class="form-horizontal" id="block-validate" method="post">
36
37 ▼                  <div class="form-group">
38                          <label class="control-label col-lg-4">Catagory Name</label>
39 ▼                          <div class="col-lg-4">
40                              <input type="text" id="required2" name="cat_name" class="form-control" required maxlength="20"/>
41                          </div>
```

```
44
45 ▼                          <div class="form-group">
46                              <label class="control-label col-lg-4"> Catagory Discription</label>
47 ▼                  <div class="col-lg-4">
48                              <textarea class="form-control" id="required2" name="cat_desc" required></textarea>
49                          </div>
50                  </div>
51
52 ▼              |    <div class="form-actions no-margin-bottom" style="text-align:center;">
53                          <input type="submit" value="Add Catagory!" class="btn btn-success btn-lg "name="submit" />
54                      </div>
55
56                  </form>
57
58  <div class="form-group">
59      </div>
60
61
62
63  <?php include('includes/footer.php')?>
```

Code for add department:

```php
1  <form name="fb" action="dept.php">
2      <?php   //$username=isset($_SESSION['username']);echo("<input type=hidden name=username value=$username>");   ?>
3
4  </form>
5
6
7  <?php include('includes/header.php')?>
8
9  <?php include('includes/menu.php')?>
10 <?php include('includes/DB.php')?>
11 <?php
12
13     if(isset($_POST['submit'])){
14
15     $d_name=$_POST['dep_name'];
16     $d_desc=$_POST['dep_desc'];
17      $d_fac=$_POST['dep_fac'];
18
19     $query=" INSERT INTO `department`( `dep_name`, `dep_disc`, `faclty`) VALUES ('$d_name','$d_desc','$d_fac')";
20
21     $result= mysqli_query($connection,$query) or die("insrt query not run");
22
23     echo"<script language=Javascript>";
24          echo"fb.submit()";
25          echo"</script>";
```

```html
42  <form action="#" class="form-horizontal" id="block-validate" method="post">
43
44          <div class="form-group">
45              <label class="control-label col-lg-4">Department Name</label>
46              <div class="col-lg-4">
47                 <input type="text" id="required2" name="dep_name" class="form-control" required  maxlength="20"
    />
48              </div>
49          </div>
50
51
52          <div class="form-group">
53              <label class="control-label col-lg-4">Faculty</label>
54              <div class="col-lg-4">
55                 <input type="text" id="required2" name="dep_fac" class="form-control" required />
56              </div>
57          </div>
58
59
60              <div class="form-group">
61
62              <div class="form-group">
63                  <label class="control-label col-lg-4"> department Discription</label>
64          <div class="col-lg-4">
65                  <textarea class="form-control" id="required2" name="dep_desc" required></textarea>
66              </div>
67          </div>
68
69
70              <div class="form-actions no-margin-bottom" style="text-align:center;">
71
72                  <input type="submit" value="Add Department!" class="btn btn-success btn-lg "name="submit" />
73              </div>
74
75          </form>
```

7.3) Verification

7.3.1)

.

7.4 Validation

Chapter-8   Discussion and Conclusion

The main purpose of this "Online biding and evaluation system" is to provide all tender documents online which can be accessed by all the suppliers using their id and password. Suppliers will able to act on more than one tender through this online system. To reduce paper work, data which are available online, using this final decision can be taken by the administration and can contact directly to such suppliers. To make an interactive system, data validation checkup will be performed by the browser side, suppliers and administration will be provided with download and print facility also.

8.1) Solution Review

To make an interactive system, data validation checkup will be performed by the browser side, suppliers and administration will be provided with download facility.

8.2) Project Review

8.2.1) Process Model and Methodology

8.2.1.1) Process Model

It describes the steps involved in the development of software project. We selected incremental process model as process model because we decomposed the product into number of components and each components built separately. The working software is generated early and is more flexible and less costly. Risk is easy to manage as it identified for each increments.

8.2.1.2) Methodology

8.2.1.3)Design phase

Client server architecture is being used because the application is web-based and number of customers will link therefore they will require server.

8.2.1.4)Implementation phase

Our Implementation phase will be PHP scripting language, Microsoft word for documentation, HTML, CSS, Bootstrap for web designing and Visio and UML paradigm for modeling.

8.2.1.5) Testing phase

Testing Plan

Software Testing is evaluation of the software against requirements gathered from users and system specifications. Testing is conducted at the phase level in software development.

There are two types of testing.

8.2.1.5.1) Black Box Testing

It is carried out to test functionality of the program. It is also called 'Behavioral' testing. The tester in this case, has a set of input values and respective desired results. On providing input, if the output matches with the desired results, the program is tested 'ok', and problematic otherwise.

8.2.1.5.2) White Box Testing

It is conducted to test program and its implementation, in order to improve code efficiency or structure. It is also known as 'Structural' testing.

In this testing method, the design and structure of the code are known to the tester. Programmers of the code conduct this test on the code.

We use black testing of our application. We write code of our application of small part and then execute it. If it contains some error we will inform us that part is not working.

Test Case 1

Test No	1
Test Action	Application check the system that user want to login to the system
Input	Enter Username and password
Expected output	User will go the main page
Pass/Fail	Pass

Test Case 2

Test No	2
Test Action	Application check the system that user want to login to the system
Input	Enter User Name and password
Expected output	Sorry Combination are not correct
Pass/Fail	Fail

Test Case 3

Test No	3
Test Action	Application check the system when user want to apply for tender
Input	Enter required data that is necessary for tender
Expected output	User will be applied for tender
Pass/Fail	Pass

Test Case 4

Test No	4
Test Action	Application check the system when data entry operator want to view for tender notice
Input	Enter tender detail data for tender notice
Expected output	Tender notice show on screen
Pass/Fail	Pass

45

Test Case 5

Test No	5
Test Action	Application check the system that user want to search for tender
Input	User enter sign that he want to search
Expected output	User can get information related to tender
Pass/Fail	Pass

Test case 6

Test No	8
Test Action	Application check the system that user want to search for tender
Input	User enter sign that he want to search
Expected output	User can get information related to tender
Pass/Fail	Fail

.

8.3)   Key Skills

- During our project   the team members work properly according to the time frame.
- We divide our work in different modules.
- We work according to the team leader instruction.
- When one team member face the problem during project then the other team member can easily help so in this way we can save the time.
- Group leader easily resolve the conflicts by finding the win scenario for everyone.

8.4) Future Work

In future, some enhancements can be made which will increase the usability of the system. These include:

- New modules can be added to enhance the functionality of our project.
- Moreover an enhanced interface can also be designed for the client.

8.5) Conclusion

During the making of the project we developed a vast knowledge on working of the Tender Management System, and Dynamically operation of web applications.We also studied and collected information on the various fields of implementation of the system such the technology for security enhancements, and operating site dynamically.This helped us to develop an understanding of the team work and the need to carry everyone along working for a group project.

Comments:

This is a good effort no doubt about it. However there are few issues which need to be discussed.

1. **There is repetition of text.**
2. **Information about the system is not properly communicated.**
3. **Need to write bit more details document is very short**

Please read the comments written in document and try to change accordingly.

Good Luck

References

[1] http://project-seminars.com/Thread-on-line-tender-management-full-report

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Ash C. G., Burn J. M., (2006). Evaluating Benefits of e-Procurement in a B2B Marketplace: A case study of Quadrem. Journal IT Cases and Applications Research, Vol. 8, No. 2, pp. 5–23 Google Scholar