PATNA WOMEN’S COLLEGe

(AUTONOMOUS)

PATNA UNIVERSITY

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**INTRANET MAIL SYSTEM**

**Submitted By: - Guided By: -**

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**TO WHOM IT MY CONCERN**

This is to certify that the project report entitled **“intranet mail system”** submitted to **PATNA** **WOMEN’S COLLEGE**, (**Patna University**) in partial fulfillment of the requirement for the award of the degree of MASTER OF COMPUTER APPLICATION (MCA), is an authentic and original work carried out by **MR. Manish Bhatia** with **roll no-27** under my guidance.

…………………......... MANISH BHATIA

(Project Guide)

**Acknowledgement**

I would like to express my thanks of gratitude to our Principal “**Dr. Sister M. Rashmi A.C**” and our professors who gave me this golden opportunity to do this wonderful project on the topic “**INTRANET MAIL SYSTEM”,** Also we are grateful to our Head of Department professor “**Dr. Bhawna Sinha**” for her support.

We would like to thank our project guide “**Manish Bhatia”**. His genuine moral support has helped a lot to boost up our confidence level.

I hope that the mail rules of the intranet mail system will provide better understanding of the system to its users.

**THANKS AGAIN TO ALL WHO HELPED ME.**

COMPANY PROFILE



* **Mentors play an essential role in an institute, the level of education, development of**

**Student’s Skills are based on their trainers.**

* **Ducat provides the best available programs which helps in enhancing the technical skills which seems to be beneficial for all the applicants.**
* **Software Development: We provide the best and latest IT software training which helps all the fresher and the corporate to understand well and give them the knowledge to go hand in hand with the latest technologies. This does not only helps the companies but also increases the self-level to deal with all the necessary software.**
* **Instructor led campus: Ducat helps all the new instructors to get the best exposure to show their talent in right way.**
* **Workshops and Placement Service: At Ducat, workshops are held to increase the understanding level because theoretical values are always not enough and workshops helps in getting the practical knowledge which results in better understanding. As everything leads to the placement because if the institute does not provide placement services then it is ultimately bad for the applicants but we provide the best placement services and for that we give our best to give you the best.**

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Abstract

An intranet is a private computer network that uses Internet Protocol technologies to securely share any part of an organization’s information or network operating system within that organization, and instead refers to a network within an organization. Sometimes the term refers only to the organization’s internal website, but may be more extensive part of the organization and collaboration. To compete, a company must find ways to communicate instantly and share knowledge across boundaries of time and distance that were once almost impossible to bridge.

“Intra Mailing System” utilizes a wide range of emerging digital technology to bridge this gap and give the people in an organization real time access to the information they need, no matter where they are located. “Intra Mailing System” provides fast, easy and secure access tools for communicating within the organization network through mail, text, images, and instant message.

“Intra Mailing System” aims at connecting all the people in an organization and within its multiple branches.

Introduction of the project

* A company has different departments situated in different locations. One has four office and three sites (factory). These are situated at different places and have a minimum distance of 15 km.
* The basic problem is that they communicate or make correspondence only through post as their units are located in remote areas. This method of communication is very slow in nature and it’s not reliable.
* Therefore, the solution for this problem is to develop a communication channel that meet the need of the organization. Basically, the computerized solution is for improving the services as well as self-efficiency of the computer.
* This project “Intra Mailing System” aims at providing a good communication interface for the organization. It can cut down the time of employees send on routine communication tasks. Its successful Implementation makes easy the job of employees in the organization.
* This application provides facilities like mails, instant message and allows employees to communicate more effectively, and access the resources they need to maximize their day-to-day productivity. It provides fast and better access to up-to-date information.

**MAIL:**

Intra Mailing system allows organizations with intranet to exchange emails internally without the need of an Internet connection, in which

* Usually text is transmitted,
* Operations include sending, storing, processing, and receiving information,
* Users are allowed to communicate under specified conditions, and Messages are held in storage until called for by addressee.
* “Intra Mailing System” is the system which is used to establish online communication among the employees of an organization at different branches and within the organization between the departments. The employees of the organization can send mails to each other in different departments at different locations.
* The purpose of “Intra Mailing System” is, an employee of a company can send and receive mails only in that organization’s Local Area Network or Wide Area Network. It will work like Internet mailing System for this Intranet.

**PURPOSE :-**

**The main objective of this system “Intranet Mail System” is to develop a communication interface for the organization. “Intranet Mailing System” meets the need of the employees in the organisation for communicating with each other within their units. This application provides basic requirements such as**

**Mail Management**

**Instant Message**

**The Intra Mailing System is very User-Friendly application. Only certain application like System Monitering and Chatting between two users needs little training**.

Objective of the project

* The project is desired to meet the following objectives:

The objective of this software is to completely automate the process of organization.

* User can send information and query to each other.
* Provide the facilities that improve the procedures within organizations.
* To maintain and store the information about the process of organization.
* Provide excellent and easy to access means of communication medium between Employees and Admin.
* Provide Classifieds as a service to enable its Employees to connect with one another.
* Provides the facility to maintain profile and inbox of each employee separately.

# 

# PROJECT CATEGORY

**J2EE WEB APPLICATION**

**“Intranet mail system”** Category of this project is RDBMS based, n-tier architecture, distributed environment project with server-side components.

* Project can be categorized in two ways:

1. **Local Area Network projects.**

Local Area Network project are those projects where application has to be incorporated in the local area network of the client.

1. **Distributed Projects.**

Distributed projects are those projects where application is remotely situated. In these kinds of projects, application is remotely situated on to the remote server from where client machine accesses the application. WAN and Internet is a kind of distributed application where client machine connects to the remote server and application is downloaded on to the client machine. Here the question of platform independence arises and we use technologies like Java Servlet, Java Server Pages, Java Beans, RMI, etc.

**TOOLS/PLATFORM USED:-**

**Front End**

**Java script/Servlet**

* User friendly
* GUI
* Separation of work (designing &coding)
* Written once run anywhere

Middle-Tier

* Java Beans.

**Back End**

**Oracle**

* Security
* Performance
* Scalability
* Reliability
* Support RDMS concepts

## **Hardware Requirements:-**

* Processor Intel i5
* RAM 4GB
* Hard Disk 1TB
* Display HD(1200X1000 Resolution)

## Software:-

* Operating System Windows 10
* Front End JAVA SCRIPT/SERVLET/JSP.
* Back End ORACLE
* Design Patterns MVC.

**Gantt chart**The Gantt chart showing the software development plan is shown below:

Start of the Project

SRS Completion

Requirements Finalization

System Design

Detail Design

Coding

Unit Testing

Test Plan

Test*i*ng

May

Jan/feb

April

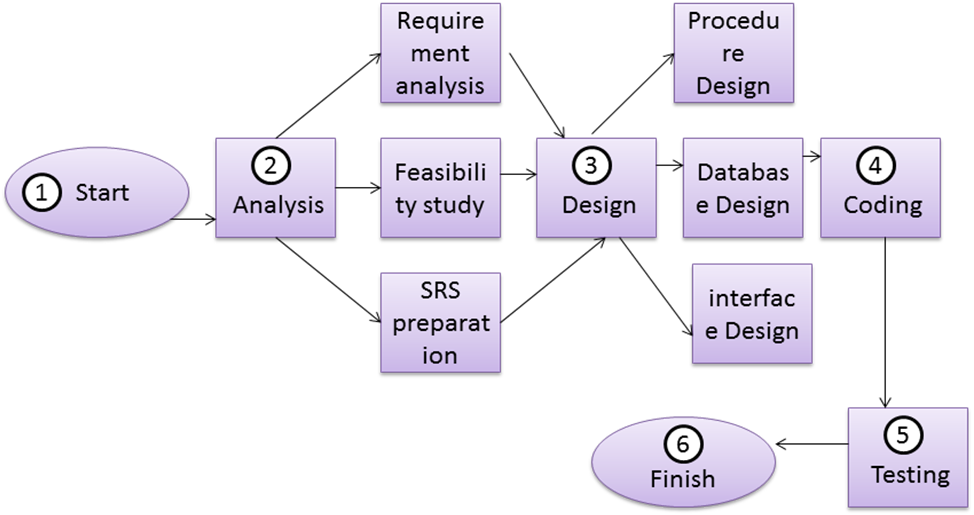
March

Time Duration of the Activity

Milestones

* ***Pert Chart:***

The Pert chart showing the software development plan is shown below:

******

**EXPECTED INPUT/OUTPUT**

# Input of the project

* Login page get the input of user id and password.
* Create the new user id for your Profile yourself.
* Compose mail.
* Attach the file with mail.
* View responses.
* Change password
* Search
* chat

# Output of the project

* View Chat.
* Message Inbox.
* Help
* Home

# Benefits of proposed System

* Fully works as a online
* Reducing the time
* Easy to communicate with colleagues
* Centralized maintain all information.
* Easy to Searching the information.
* Easy to managing whole Mail system of an organization.

# Modules & Process Logic of Project

1. **Administrator:**

In Administrator module we have five options:

1. **Check Mail.**
2. **Send Mail.**
3. **View User.**

**4. Search User.**

**5. Delete User.**

* When the administrator selects the “Send Mail” option, then the form will be opened for sending mail. Then, the admin send mail to any other user who has user id in the organization.
* In “Check Mail” option, the admin check for the mails. If the user has any mails, then the mails will be displayed. He will check the mail and delete the unnecessary mails. If the user has mails the message “No Mails” will be displayed.
* When the admin select the “View User” option, then the no. of users who currently are using the system are displayed.
* When the administrator selects the option “Search User”, he will search the existing user, if any.
* When the Administrator Select the option “Delete User”, he will delete an existing user, if any.

**2. User:**

In user module we have six options.

1. **Send Mail.**
2. **Check Mail.**
3. **Generate Contact.**
4. **Delete Contact.**
5. **View Contact.**
6. **Search Contact.**

* When the user selects the “Send Mail” option, then the form will be opened for sending mail. Then the user can send mail to any user who has a user id in the organization.
* In “Check Mail” option, the user can check for the mails, if the user has any mails. The mails are displayed. He will check the mails and can delete the unnecessary mails. If the user has no mails then the message “No Mails” will be displayed.
* When the User selects the option “Generate Contact”, he will generate a new Contact, if any.
* When the administrator selects the option “Delete Contact”, he will delete an existing user, if any.
* When the administrator selects the option “Search Contact”, he will search an existing user, if any.
* When the user select the “View Contact” option, then the no. of contacts that are added, are displayed.

**3. Registration:**

This module is responsible for capturing and submitting the details of all the employee of the System so that they can get the facility of mail, chat, search etc

**4. Login:**

In this module User enter the User id and password is checked andonly valid user id and password will get entry into member’s zone. This is a security feature to avoid entry of unauthorized users.

**5. Mail Inbox:**

User and Admin can check their mail and also download the attachment files with their mail box.

**6. Composed Mail:**

You can write any mail and also attach any document or image and send to your destinations. You can write any mail and also attach any document or image and send to your destinations.

**7. Chat:**

This is the Administrator’s module by which he keep the eye on whole site and maintain and upgrade the site’s service for sake of users. Administrator can show banner ads of others, which help the site in revenue.

**8. Security Management Process:**

This module provides functionality to change the user id and the password.

**10. Logout:**

The Admin and User can successfully logout and their session will be destroyed.

**11. Help:**

Provide the functionality to get help about the any query.

# DATA FLOW DIAGRAMS

The Data flow Diagram shows the flow of data. It is generally made of symbols given below:

(1) A **square** shows the Entity: -

(2) A **Circle** shows the Process: -

(3) An **open Ended Rectangle** shows the data store: --

(4) An **arrow** shows the data flow:-

The DFD can be up to several levels. The 0 level DFD states the flow of data in the system as seen from the outward in each module.

The first level DFD show more detail, about the single process of the 0 level DFD

The second level DFD can show even more details and so on.

# Context Level DFD

SEARCH

VIEW CONTACTS

SEND MAIL

VIEW MAIL

SEND RESPONSE

REGISTRATION/PROFILE

LOGIN

SEND MAIL

CHAT

VIEW RESPONSES

**ADMIN**

**User**

# FIRST LEVEL DFD

ADMINISTRATOR

Mail in queue

Response Mail

Delete mail

Send Mail

RETRIEVE Mail

View mail

**1.0**

Trace Mail

User

**2.0**

Mail in queue

RETRIEVE Mail

Send Mail

View Mail

Trace Mail

Delete Mail

Response Mail

ADMIN

**3.0**

USER

Message

Chat with user

Retrieves Message Details

Get the previous Messages

Chat with other user and admin

Get their own previous Message

NEW USER

**4.0**

REGISTERED USER

RETERIVE DETAILS

REQUEST FOR LOGIN

REQUEST FOR NEW ACCOUNT

USER ID & PASSWORD

UPDATE

6.0

5.0

USER

USER

ADMINISTRATOR

REGISTERED USER

REGISTERED USER

CATEGORY

ADMINISTRATOR

**7.0**

REGISTERED USER

**8.0**

ADMINISTRATOR

USER

**9.0**

USER

ADMINISTRATOR

MAIL INBOX

CHECK MAIL

CHECK MAIL

**10.0**

USER

ADMINISTRATOR

HELP FILE

REQUEST FOR HELP

REPLY FOR HELP

USER

**11.0**

ADMINISTRATOR

# Second Level DFD

1.1

ADMIN

1.0

MAIL INBOX

CATEGORY

1.2

RESPONSE

2.2

ADMIN

2.1

MAIL

CONTACTS

3.0

USER

5.2

5.1

5.3

4.0

REGISTERED USER

RESPONSE

MAIL

CATEGORY

ADMINISTRATOR

6.1

6.3

6.5

6.6

6.4

6.2

CATEGORY

CATEGORY

MAIL DETAIL

7.1

ADMINISTRATOR

USER

7.2

USER

REGISTERED USER

8.1

USER

ADMINISTRATOR

8.2

8.3

8.4

SENT MAIL LIST

# ENTITY RELATIONSHIP

# DIAGRAM

# (ERD)

NEW COMPOSE

.

MAINTAINS

.

SENDS

Mails

AD VIEWER

Mail

.

SEND RESPONSE

.

VIEWS

Mail

.

VIEWS

.

SEND RESPONSE

Mail

CATEGORY

.

BELONGS

# 

# 

# DATA STRUCTURE

**Folder:** This table maintains details of ads poster.

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Null?** | **Data Type** |
| U-name |  | Varchar(50) |
| Folder | NOT NULL | Varchar(50) |

**New compose:** This table maintains details of Ads

|  |  |  |
| --- | --- | --- |
| **Field name** | **Null?** | **Data type** |
| Mail-Id | NOT NULL | Int |
| Mail-from |  | Varchar(50) |
| Mailto |  | Varchar(50) |
| Subject |  | Varchar(80) |
| Mail-cc |  | Varchar(50) |
| Mail-Bcc |  | Varchar(50) |
| Mail-Data |  | Varchar(99) |
| Folder |  | Varchar(50) |
| Mail-Date |  | Varchar(35) |
| Mail-St |  | Int |

**Signup details:** This table maintains link between ad table and ad poster table.

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Null?** | **Data Type** |
| U-name | NOT NULL | Varchar(50) |
| Pass-wd |  | Varchar(30) |
| Age |  | Int |
| Sex |  | Varchar(6) |
| City |  | Varchar(50) |
| State |  | Varchar(50) |
| Pin |  | Varchar(20) |
| Country |  | Varchar(40) |

**New folder:** This table maintains link to edit the ad table.

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Null?** | **Data Type** |
| M-ID | NOT NULL | Int |
| M-From |  | Varchar(40) |
| M-To |  | Varchar(40) |
| Sub |  | Varchar(40) |
| M-cc |  | Varchar(40) |
| M-Data |  | Long |
| Folder |  | Varchar(15) |
| Mail-St |  | Int |
| Mail-Date |  | Varchar(35) |

**Address:** This table maintains detail of banner advertisers

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Null?** | **Data Type** |
| Act-Name |  | Varchar(50) |
| U-name |  | Varchar(50) |
| Nick-Name |  | Varchar(50) |
| Email-Id |  | Varchar(50) |
| Addresses |  | Varchar(99) |
| Phone |  | Int |

**Chat Message:** This table maintains link to edit the ad table.

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Null?** | **Data Type** |
| Username | NOT NULL | Varchar(40) |
| Message |  | Varchar(40) |
| Date |  | Varchar(30) |
| Response-id |  | Int |
| Response-text |  | Varchar(99) |

**Search:** This table links the ad viewer to the ads.

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Null?** | **Data Type** |
| Mid | NOT NULL | Int |
| Mail Data |  | Varchar(99) |
| Date of view |  | Varchar(40) |

**Category:** This table defines the category for ads**.**

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Null?** | **Data Type** |
| Category-id | NOT NULL | Int |
| Category-name |  | Varchar(50) |
| Category-description |  | Varchar(99) |

**Login**: This stores and maintains status of administrator.

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Null?** | **Data Type** |
| Username | NOT NULL | Varchar(40) |
| Password |  | Varchar(40) |

**Future Scope:-**

**🡪** There is always some scope of improvements in everything. Project has some of the following Enhancement.

🡪 Providing the **SMS alerts** facility to users to remove the dependency on email account (web).

🡪 As the project is flexible, so in future ‘DOCUMENT ATTACHMENT’ can be added in the project.

**DEPENDENCIES**

🡪 It doesn’t matter how efficiently the application works, if the bandwidth is not sufficient the transaction will take more time then expected.

🡪 Oracle and Oracle Connector drivers for connectivity.

🡪 Java Web-server is required for the application.

🡪 Although this software is architecturally independent but following hardware resources are required. For i.e. any IBM compatible PC or any other workstation with mouse support and relevant software.

**LIMITATIONS**

* User can only use this application from the system which is connected to LAN.
* Only able to handle restricted Category range.
* If the Main Server has some problem user has to wait till it solve to user application.

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