**A**

**Synopsis**

**on**

# EMAIL INTERFACE

**Submitted By**

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**(March-2023)**

**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.

“Email Interface” 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. “Email Interface” provides fast, easy and secure access tools for communicating within the organization network through mail, text, images, and instant message.

“Email Interface” aims at connecting all the people in an organization and within its multiple branches.

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**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 “Email Interface” 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:**

Email Interface 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.

* “Email Interface” 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 “Email Interface” 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 Email Interface for this Intranet.

**PURPOSE :-**

The main objective of this system “Email Interface” is to develop a communication interface for the organization. “Email Interface” 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 Email Interface is very User-Friendly application. Only certain application like System Monitoring 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**

**“Email Interface”** 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 Requirements**:-

* 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

**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.

# 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.

**9. Logout:**

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

**10. Help:**

Provide the functionality to get help about the any question.

# 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 .

# FIRST LEVEL DFD

ADMINISTRATOR

Mail in queue

Response Mail

Delete mail

Send Mail

RETRIEVE Mail

View mail

**WRITE MAIL**

**1.0**

Trace Mail

User

**WRITE MAIL**

**2.0**

Mail in queue

RETRIEVE Mail

Send Mail

View Mail

Trace Mail

Delete Mail

Response Mail

ADMIN

**CHAT**

**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

**REGISTRATION PROCESS**

**4.0**

REGISTERED USER

RETERIVE DETAILS

REQUEST FOR LOGIN

REQUEST FOR NEW ACCOUNT

USER ID & PASSWORD

UPDATE

**MAILING PROCESS**

6.0

**LOGIN PROCESS**

5.0

USER

USER

ADMINISTRATOR

REGISTERED USER

REGISTERED USER

CATEGORY

ADMINISTRATOR

**ADMINIST-RATOR PROCESS**

**7.0**

REGISTERED USER

**SECURITY**

**MANAGEMENT PROCESS**

**8.0**

ADMINISTRATOR

USER

**MAIL INBOX PROCESS**

**9.0**

USER

ADMINISTRATOR

MAIL INBOX

CHECK MAIL

CHECK MAIL

**HELP PROCESS**

**10.0**

USER

ADMINISTRATOR

HELP FILE

REQUEST FOR HELP

REPLY FOR HELP

USER

**LOG-OUT PROCESS**

**11.0**

ADMINISTRATOR

# Second Level DFD

**VIEW MAIL**

**PROCESS**

1.1

ADMIN

**WRITE MAIL PROCESS**

1.0

MAIL INBOX

CATEGORY

**SEND RESPONSE**

**PROCESS**

1.2

RESPONSE

**VIEW**

**CONTACTS**

**PROCESS**

2.2

ADMIN

**SEARCH CONTACT PROCESS**

2.1

MAIL

CONTACTS

**LOGIN PROCESS**

3.0

USER

**VIEW RESPONSE PROCESS**

5.2

**SEND MAIL PROCESS**

5.1

**TRACE MAIL PROCESS**

5.3

**CHAT PROCESS**

4.0

REGISTERED USER

RESPONSE

MAIL

CATEGORY

ADMINISTRATOR

**MAINTAIN**

**CATEGORY PROCESS**

6.1

**VIEW REGISTERED USER**

**PROCESS**

6.3

**MAINTAIN**

**MAILING PROCESS**

6.5

**DELETE**

**PROCESS**

6.6

**SEND**

**NOTIFICATION PROCESS**

6.4

**CHAT**

**PROCESS**

6.2

CATEGORY

CATEGORY

MAIL DETAIL

**CHANGE**

**PASSWORD**

**PROCESS**

7.1

ADMINISTRATOR

USER

**DELETE**

**ACCOUNT**

**PROCESS**

7.2

USER

REGISTERED USER

\

**COMPOSE MAIL PROCESS**

8.1

USER

ADMINISTRATOR

**CHECK FOR ATTACHMENT**

**PROCESS**

8.2

**CONVERT**

**ATTACHMENT TO TEXT FORMAT**

8.3

**SEND MAIL PROCESS**

8.4

SENT MAIL LIST

# ENTITY RELATIONSHIP

# DIAGRAM

# (ERD)

ADDRESS\_FROM

SUBJECT

CATEGORY

ADDRESS\_TO

MAILDATA

NEW COMPOSE

MAIL\_ID

PHONE NO

Mail ID

.

MAINTAINS

.

SENDS

Composer ID

AD\_ID

RESPONSE

DATE

Mails

DATE

TITLE

AD\_ID

IMAGE

DESCRIPTION

CATEGORY

AD VIEWER

AD\_ID

RESPONSE TEXT

V\_ID

NAME

V\_ID

Mail\_ID

Mail

.

SEND RESPONSE

.

VIEWS

DATE\_OF\_VIEWING

V\_ID

DATE

RESPONSE\_ID

Mail

DATE

DATE\_OF\_VIEWING

V\_ID

RESPONSE\_ID

.

VIEWS

.

SEND RESPONSE

Mail

CATEGORY

.

BELONGS

AD\_ID

CATEGORY\_ID

CATEGORY\_ID

DESCRIPTION

# 

# 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:-**

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

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

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

**DEPENDENCIES**

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

à Oracle and Oracle Connector drivers for connectivity.

à Java Web-server is required for the application.

à 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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