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**DESIGN OF A WINDOWS – BASED EMAIL AND
MULTI-UTILITY SOFTWARE FOR THE
UNIVERSITY**



By

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ANISHA BHATIA – 021085**



MAY – 2006


**Submitted in partial fulfillment of the Degree of Bachelor of
Technology**

**DEPARTMENT OF ELECTRONICS AND
COMMUNICATIONS ENGINEERING
JAYPEE UNIVERSITY OF INFORMATION
TECHNOLOGY - WAKNAGHAT**



CERTIFICATE

This is to certify that the work entitled, "**Design of a Windows – Based Email and Messaging Utility Software for the University**" submitted by **Anisha Bhatia** and **Aditya Marwah** in partial fulfillment for the award of degree of Bachelor of Technology in Electronics and Communications Engineering of Jaypee University of Information Technology has been carried out under my supervision. This work has not been submitted partially or wholly to any other University or Institute for the award of this or any other degree or diploma.


Dr. (Prof.) Sunil V. Bhooshan

Sincere thanks are also due for Microsoft Corporation and Adobe Systems for bringing out so many useful, powerful softwares which have been the building block of the project. Along with that we would like to express our thanks to all the authors and publishers for bringing out such great books on the subject.

Finally, we would like to thank our families for their honest support, wisdom and encouragement and for making us capable of graduating as engineers.

Anisha Bhatia

Aditya Marwah

ACKNOWLEDGEMENT

One of the most wonderful aspects of writing an acknowledgement is the opportunity that the authors get to thank some people and organizations whose names might not appear in the authors or developers lists.

First and foremost we would like to express our heartfelt thanks to our project guide, mentor and Head of Department Dr. (Prof.) Sunil V. Bhooshan. His thinking and straightforward attitude have inspired us to complete this project under stiff time limits.

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Also, we would like to express our thanks to our friends who have supported, encouraged, and criticized our efforts which have been instrumental in giving the project its final shape.

Sincere thanks are also due for Microsoft Corporation and Adobe Systems for bringing out so many useful, powerful softwares which have been the building block of this project. Along with that we would like to express our thanks to all the authors and publishers for bringing out such great books on the subject.

Lastly, we would like to thank our families for their honest support, wisdom and encouragement and for making us capable of graduating as engineers.

Anisha Bhatia

Aditya Marwah

Handwritten signatures in blue ink. The first signature is a cursive 'Anisha' and the second is a cursive 'Aditya'.

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LIST OF ABBREVIATIONS

API	Application Program Interface
ARPANET	Advanced Research Projects Agency Network
AUTODIN	Automatic Digital Network
CNRI	Corporation for the National Research Initiative
CTSS	Compatible Time-Sharing System
Email, E-mail	Electronic Mail
MDI	Multiple Document Interface
MIT	Massachusetts Institute of Technology
MS	Microsoft
MSN	Microsoft Services Network
NSFNET	National Science Foundation Network
SDC	System Development Corporation
SP6	Service Pack 6 for Visual Studio 6.0
VB	Visual Basic

ABSTRACT

Electronic mail, abbreviated **e-mail** or **email**, is a method of composing, sending, and receiving messages over electronic communication systems. The term e-mail applies both to the Internet e-mail system based on various protocols and to intranet systems allowing users within one company or organization to send messages to each other.

ORIGIN OF E-MAIL

E-mail started in 1965 as a way for multiple users of a time-sharing mainframe computer to communicate. The first systems to have such a facility were SDC's Q32 and MIT's CTSS.

E-mail was quickly extended to become **network e-mail**, allowing users to pass messages between different computers. The AUTODIN system was the first to allow electronic text messages to be transferred between users on different computers in 1966.

During the 1960's and 1970's many companies who were using mainframe and mini computers also used email facilities on those systems. This enabled users of terminals attached to those systems to send messages to each other. As companies began to connect their central systems (hosts) to branch offices and subsidiaries then employees were able to send email to other employees of that company on a world-wide basis.

Also during this time the US Department of Defence's research into computer networks was well underway, resulting in ARPANET --the forerunner to the now global Internet. The first ARPANET network email message was transmitted in 1971.

In 1988, Vinton Cerf arranged for the connection of MCI Mail to the NSFNET through the Corporation for the National Research Initiative (CNRI) for "experimental use", providing the first sanctioned commercial use of the Internet. Shortly thereafter, in 1989,

the CompuServe mail system also connected to the NSFNET, through the Ohio State University network.

In 1993, the large network service providers America Online and Delphi started to connect their proprietary email systems to the Internet, beginning the large scale adoption of Internet email as a global standard.

Thereafter began the high scale commercialization of e-mail and as of today there are thousands of internet portals offering the e-mail services like gmail by Google, yahoo mail, hotmail and MSN Mail by Microsoft to name a few.

THE IDEA BEHIND THIS PROJECT

For messaging within organizations several companies have been offering generalized solutions which could be customized according to one's needs. One such example is Lotus notes which is a widely used and accepted application but not without some drawbacks like the major control of the mail rests with the network administrator and not the end user. Similarly the user does not have the right to change the password without informing the administrator. Also performing certain functions like deleting the mails from ones inbox is not a simple click away in Lotus Notes.

The purpose of this project is to develop a customized mail to be implemented within the University Campus which improves upon some of the aforesaid drawbacks and looks more like a normal Microsoft application.

@Mail aims at providing a higher functionality to the end user and being more user friendly by providing functionality similar to a normal windows application which users are normally used to work on.

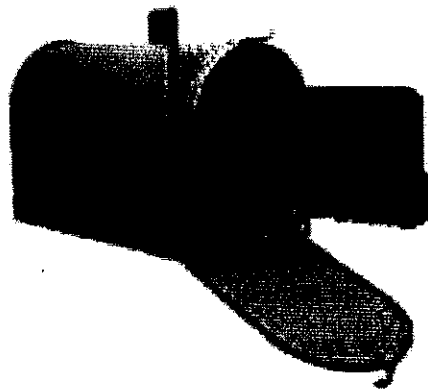
CHAPTER 1

THE STARTUP SCREEN

The startup screen is the first screen of the software. This screen works as a splash screen which is visible for 3 seconds. After 3 seconds the Splash Screen unloads and the Login Form appears.

Steps for Creating the Startup Screen

1. Added a New Blank Form to the Project and renamed it SplashScreen.
2. Various controls were added to the form. The controls data can be viewed in the Object Code.
3. Set the Startup Object of the project to SplashScreen.
4. Edited the properties of the controls.
5. The picture boxes were linked to images that were created using Adobe Photoshop 7.0.
6. The delay property of the splash screen was set using the interval property of the timer.
7. The Source Code was added to the form in order to provide the functionality.



@Mail

Version 1.0.0

Developed By
Anisha Bhatia
Aditya Marwah

This software is a copyrighted product of Adni Inc. No part of this software can be reproduced in any form whatsoever without the prior permission of the developers.

Figure 1 – Splash Screen

CHAPTER 2

THE LOGIN SCREEN

The Login Screen allows the user to enter the userID and Password and then proceed. The user can't login to the software without the appropriate userID and Password. New Users can register themselves in the database by clicking on the "New Users Register Here" button.

Steps for Creating Login Screen

1. Added a new form to the project.
2. Various controls were added to the form. The controls data can be viewed in the Object Code.
3. The properties of the form and controls were edited to give the desired look.
4. The password character was set using the PasswordChar property of the text box.
5. The data box was made invisible using the Visible property of the data box.
6. The connectivity of the login form with the User database was provided through the following properties of the data box:
 - a. Connect
 - b. DatabaseName
 - c. RecordsetType
 - d. RecordSource
7. Next, the source code was added to the form.

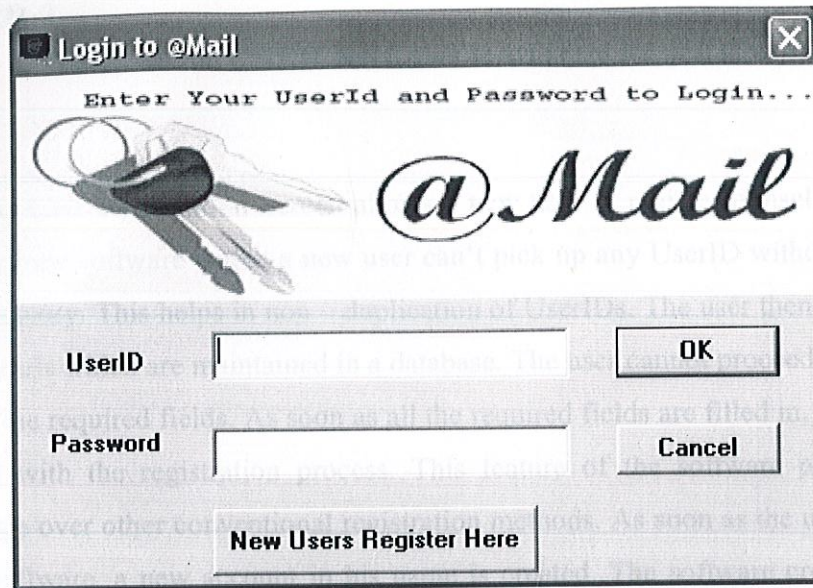


Figure 2 – Login Screen

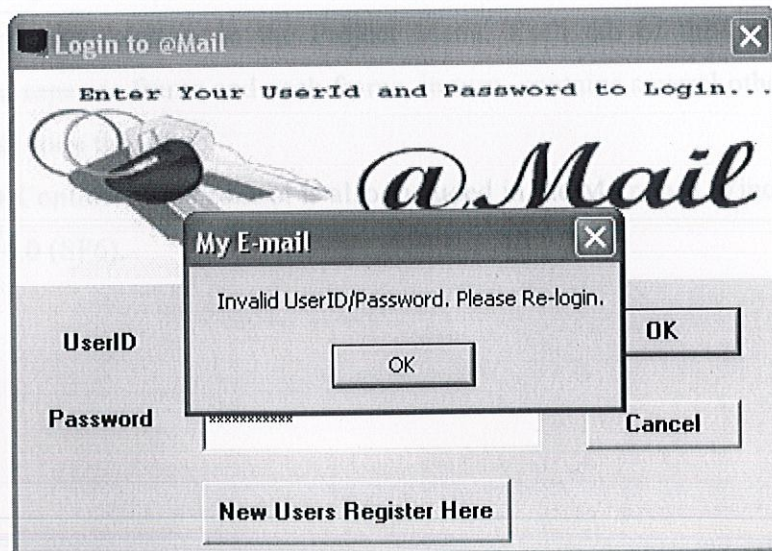


Figure 3 – Invalid UserID/Password Screen

CHAPTER 3

THE NEW USER REGISTRATION SCREEN

The New User Registration Screen allows a new user to register himself. An added feature of the software is that a new user can't pick up any UserID without checking its availability. This helps in non – duplication of UserIDs. The user then has to enter other details which are maintained in a database. The user cannot proceed until he has entered the required fields. As soon as all the required fields are filled in, the user can proceed with the registration process. This feature of the software proves as an advantage over other conventional registration methods. As soon as the user registers in the software, a new account in his name is created. The software creates certain folders such as Inbox, Notes, Tasks, etc. by default to store the data for the user. Each user has a different account and different folders.

TabStrip Control – This control has to be added separately to the VB6.0 environment by including the component – Microsoft Windows Common Controls 6.0 (SP6) from the components window in the Project Menu. Each tab of the TabStrip Control contains a separate frame and each frame, in turn, contains several other components depending upon the usage.

DTPicker Control – This control is also included in the Microsoft Windows Common Controls 6.0 (SP6).

Register

Register Yourself Here

Login Details | Personal Details | Home | Office | E-Mail

@Mail

UserID * John Smith

Password * ****

Confirm Password * ****

Figure 4 – New User Registration (Login Details)

Register

Register Yourself Here

Login Details | Personal Details | Home | Office | E-Mail

@Mail

Salutation * Mr.

Date of Birth 10/17/1978

First Name * John

Middle Name Kelly

Last Name Smith

Sun	Mon	Tue	Wed	Thu	Fri	Sat
24	25	26	27	28	29	30
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4

Today: 4/9/2006

Figure 5 – New User Registration (Personal Details)

Register

Register Yourself Here

Login Details |
 Personal Details |
 Home |
 Office |
 E-Mail

Address

* 16th Park Avenue, Chestwood Street

Pin Code

0-44-12312

City

* New York City

Phone

0076892121

State

* New York

Fax

0076892123

Country

* USA

Submit Cancel

Figure 6 – New User Registration (Home Details)

Register

Register Yourself Here

Login Details |
 Personal Details |
 Home |
 Office |
 E-Mail

Office JUIT Other

Designation * CEO

Department * Finance

Address * Room No. 65, 100th Floor, World Trade Center, Manhattan,

Phone 09983478981

City * New York City

Extension 768

State * New York

Mobile 098768796823

Country * USA

Fax 0998349871

Pin Code 0-44-031231

Submit Cancel

Figure 7 – New User Registration (Office Details)

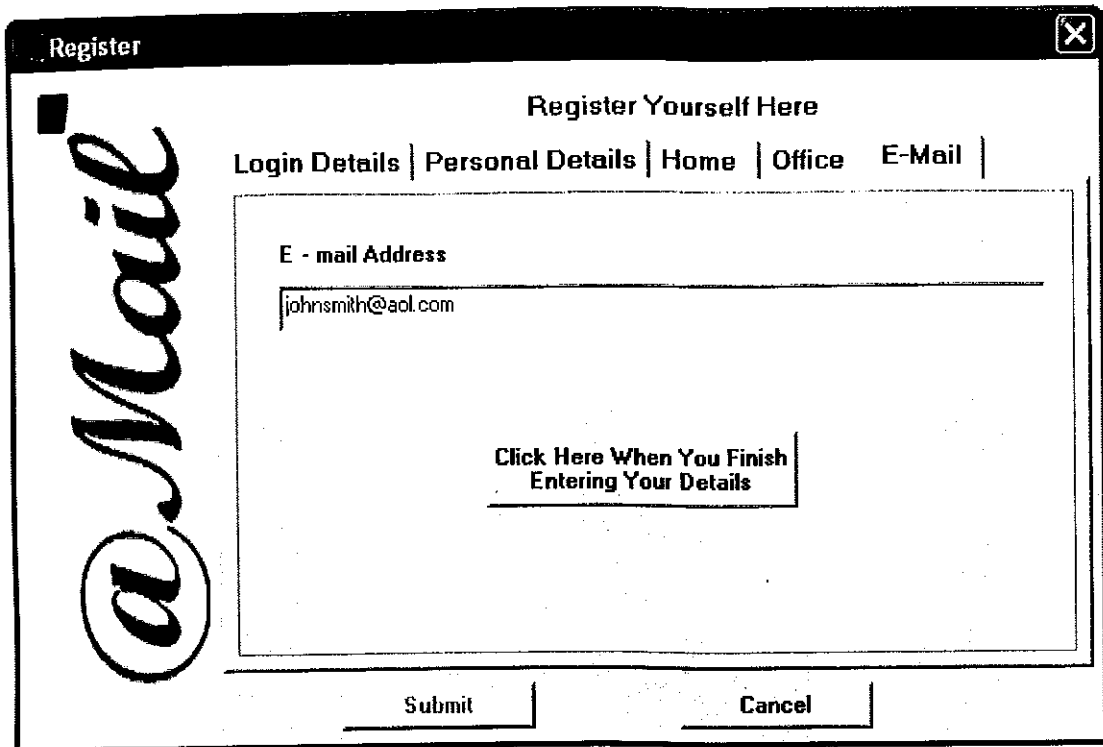


Figure 8 – New User Registration (Email Details)

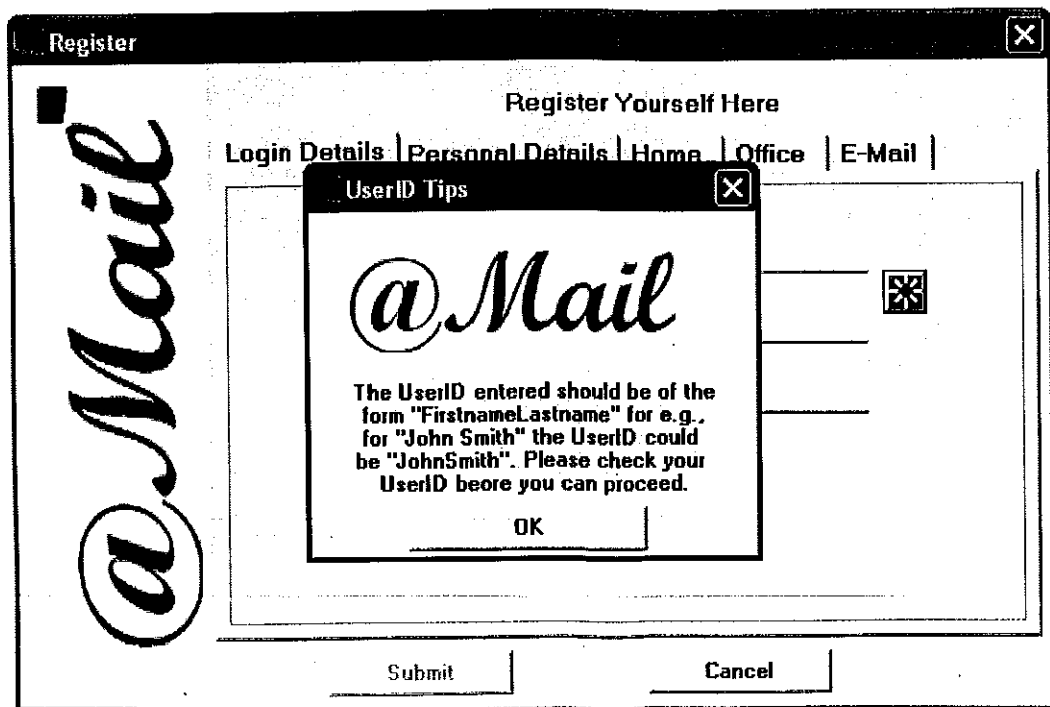


Figure 9 – New User Registration (UserID Tips)

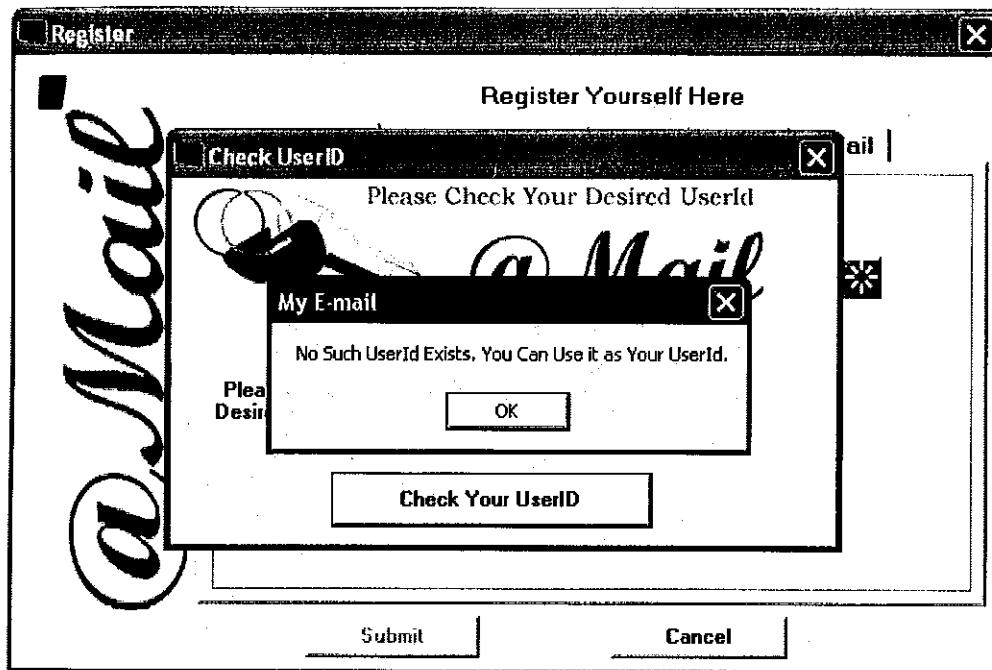


Figure 10 – New User Registration (Check UserID)

CHAPTER 4

THE PERSONAL FOLDERS SCREEN

The Personal Folders Form of the software is the Main Screen of the software. It permits the user to navigate through the software. It gives the user full control of the application wherein he can perform anything with his account. The user can also change the password of his account without informing the network administrator about it thereby making the application solely dependent on the user. The exit option gives the user the capability to log off and login again with a different account.

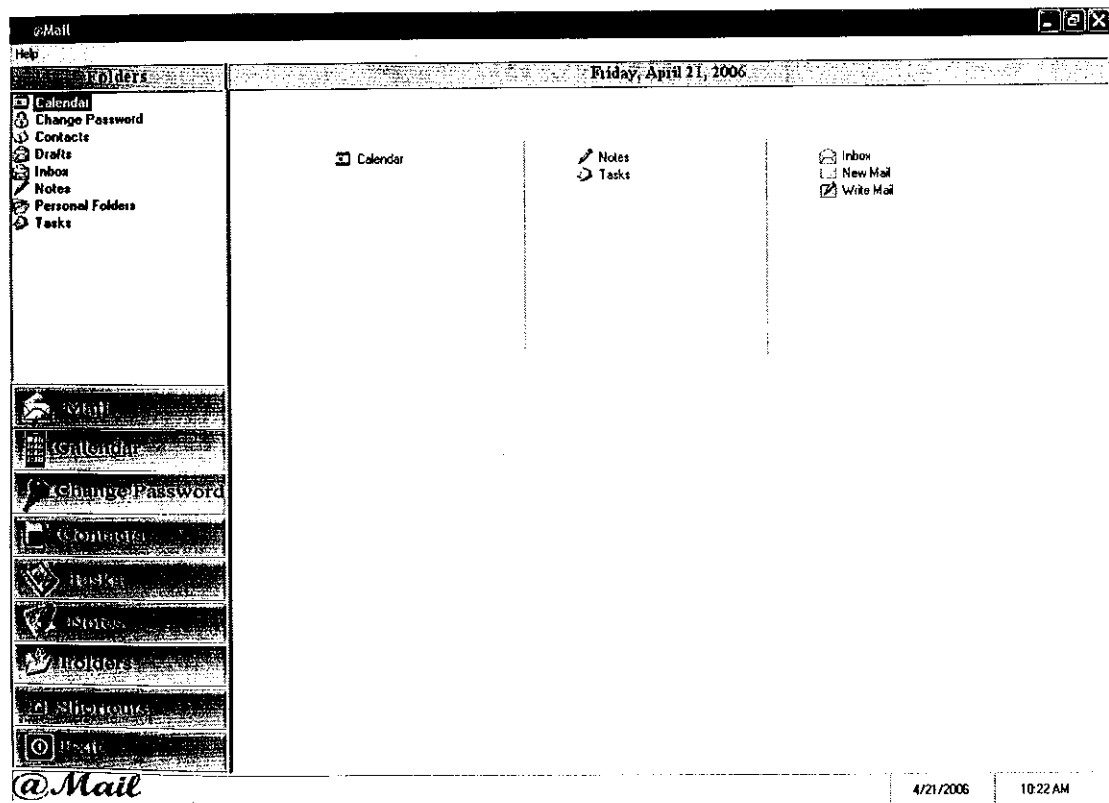


Figure 11 – Personal Folders Screen

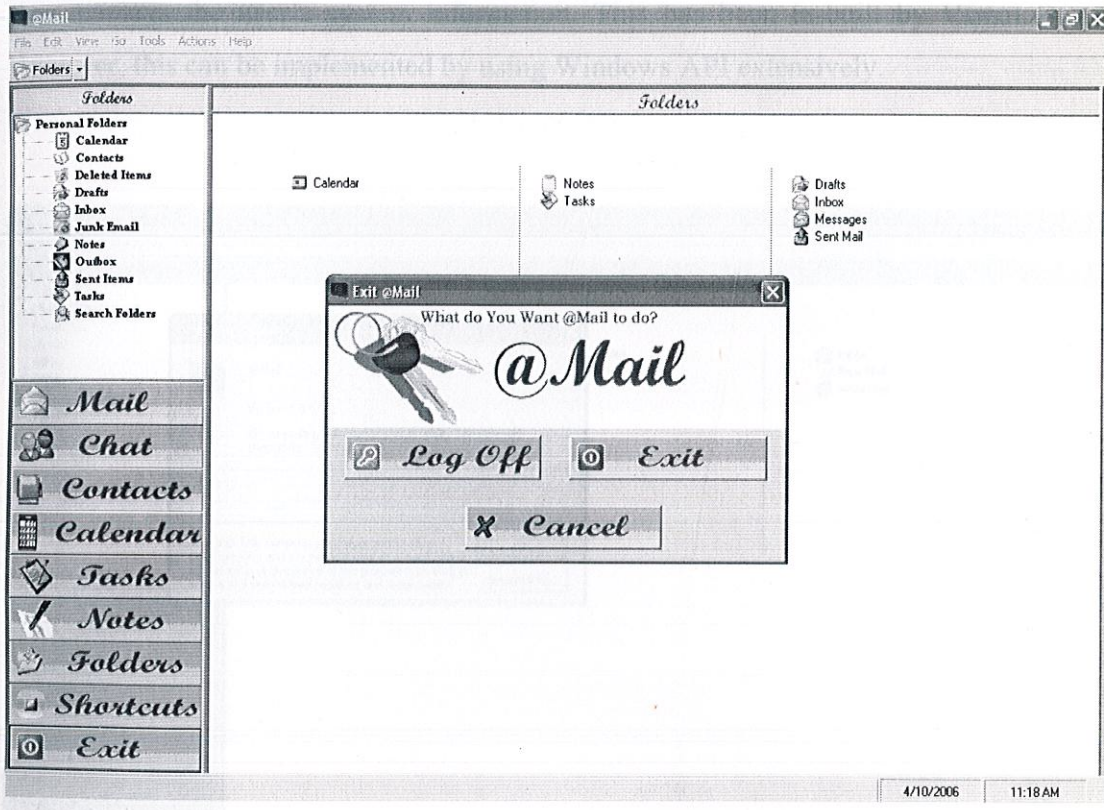


Figure 12 – Exit Option

CHAPTER 5

THE ABOUT SCREEN

The About Form of the software displays the information about the software. This form has been created using the Add New About Dialog Wizard of Visual Basic. The form also displays the user's system information. This has been in-built by Visual Basic. However, this can be implemented by using Windows API extensively.

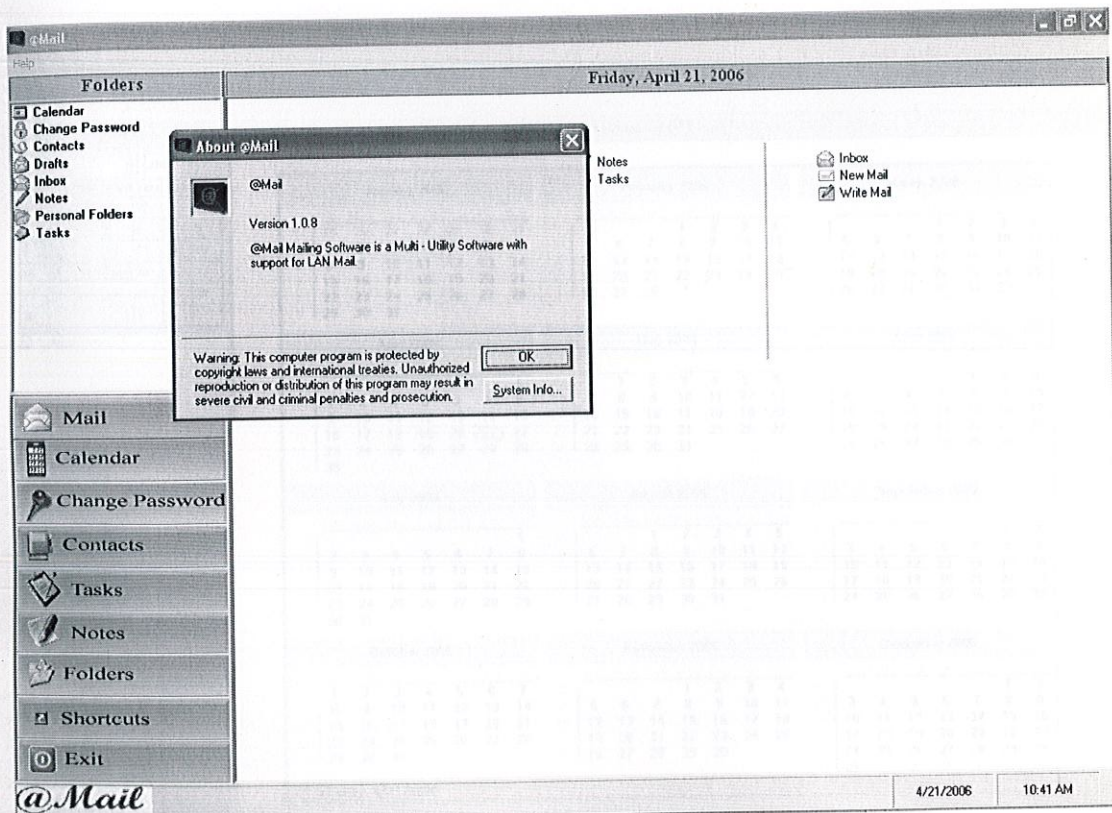


Figure 13 – About Screen

CHAPTER 6

THE CALENDAR SCREEN

The Calendar Form of the software displays the in-built calendar of the software. The Calendar Form consists of a Month View Calendar which is located on the Navigation Pane. It displays the current month calendar. The form also consists of a yearly calendar for the current year. The calendar and month view controls have been added using the Microsoft Windows Common Controls 6.0 (SP6).

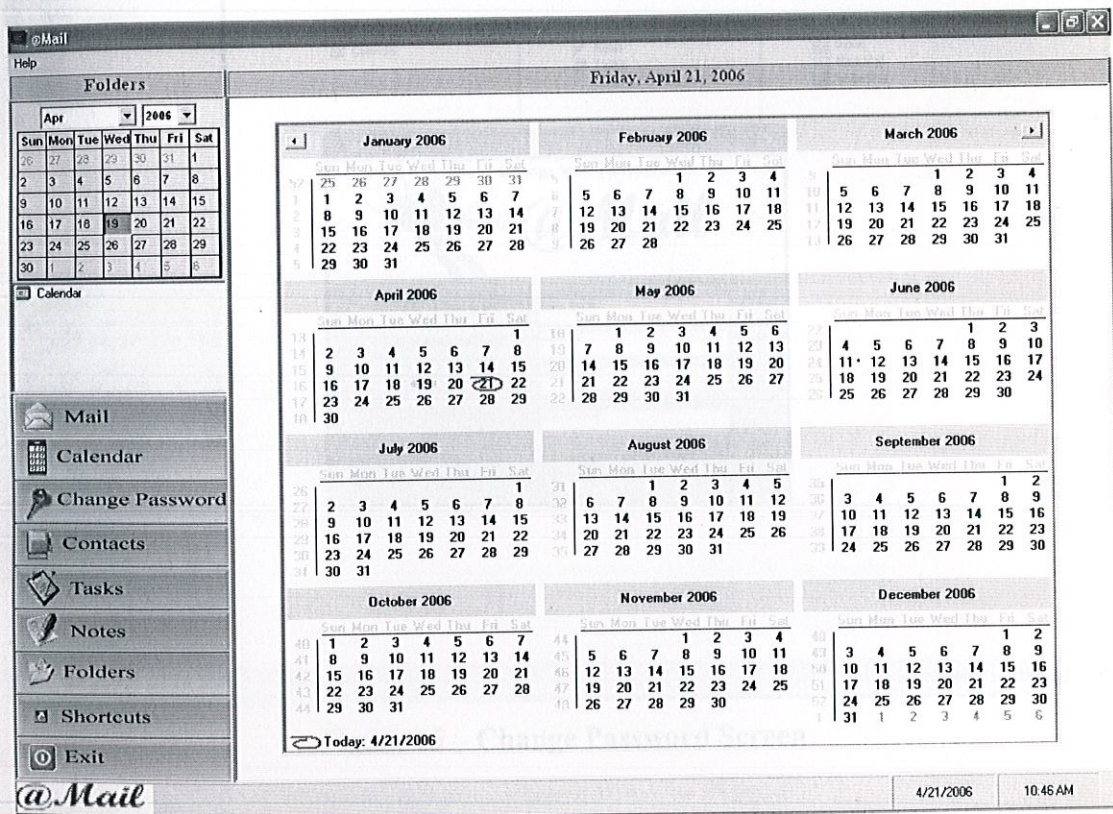


Figure 14 – Calendar Screen

CHAPTER 7

THE CHANGE PASSWORD SCREEN

The Change Password Form of the software enables the user to change his/her login password. On changing the password, the software checks the database for old password and on authentication and validation changes the password to new password else it displays an error message.

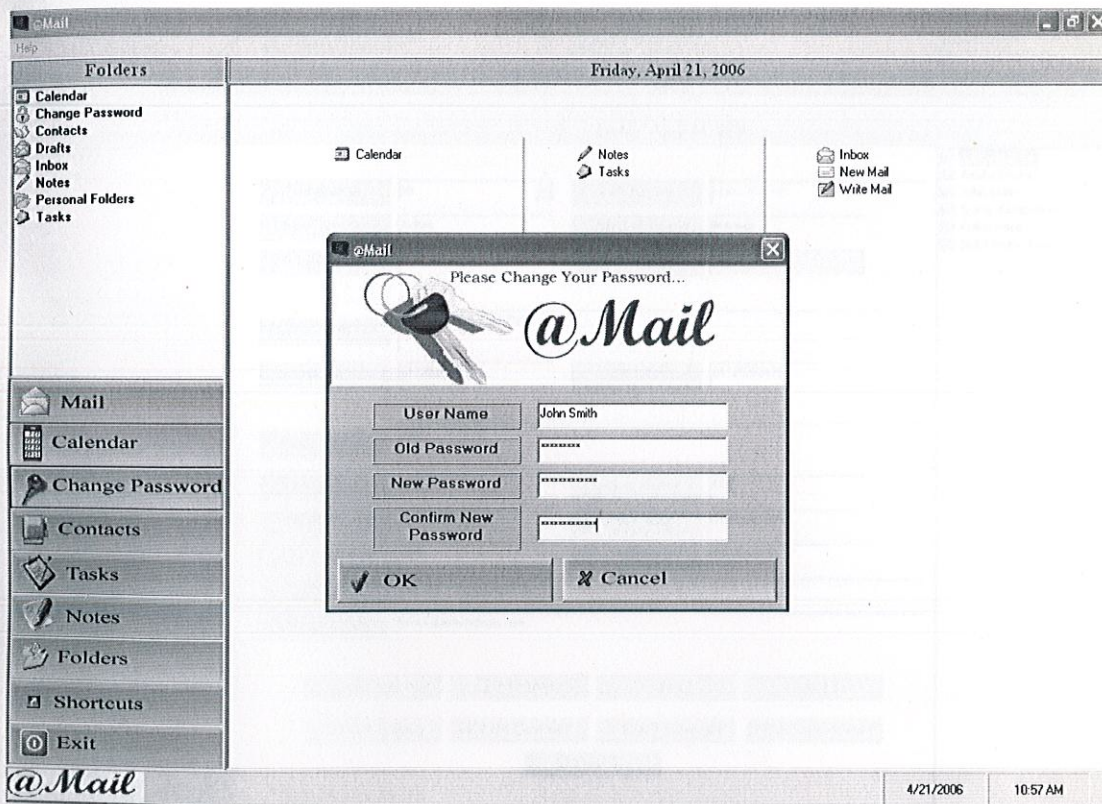


Figure 15 – Change Password Screen

CHAPTER 8

THE CONTACTS SCREEN

The Contacts Form of the software enables the user to add, view, edit and delete contacts. On viewing contacts, the contacts tree populates by itself, displaying the full names of all the contacts in the address book of the current user. The user can edit a contact by clicking on the contact full name in the tree. The user can store a variety of information in the database.

The screenshot displays the @Mail software interface for viewing contact details. The window title is '@Mail' and the date is 'Friday, April 21, 2006'. The main area shows a form for contact details for 'Aditya Marwah'. The form includes fields for Salutation (Mr.), First Name (Aditya), Middle Name, Last Name (Marwah), Date of Birth (8/20/1984), Home Address (Paschim Vihar, New Delhi), Home Phone (01125283155), Home Fax (01125263175), Office Address (JUIT), Designation (Student), Department (ECE), Office Phone (01792245362), Office Fax (01792245365), Extension (123), Mobile (9816044080), Email ID (marwah.aditya@gmail.com), and URL/Webpage (www.adityamarwah.com). A navigation bar at the bottom contains buttons for First, Previous, Next, Last, Add Contact, Edit Contact, Save Contact, Delete Contact, and Cancel. On the left, a sidebar menu includes Mail, Calendar, Change Password, Contacts, Tasks, Notes, Folders, Shortcuts, and Exit. On the right, a contacts tree lists: Aditya Marwah, Anisha Bhalia, John Smith, Queen Elizabeth II, Robin Hood, and Rohit Anand Kumar. The status bar at the bottom shows '@Mail', '4/21/2006', and '1:12 PM'.

Figure 16 – View Contacts Screen

@Mail

Friday, April 21, 2006

Contacts

Contacts

Mr.
 Anil Bhatia
 3/24/1995

D-14A/2, Model Town III, Delhi - 110009
 01142371098

D&C Constructions, Gujraon
 MD Technical
 0124236453 0124236456
 234 9810107263
 bhania.anil@candc.com
 www.anibhatia.candc.com

Aditya Marwah
 Anisha Bhatia
 John Smith
 Queen Elizabeth II
 Robin Hood
 Rohit Anand Kumar

@Mail

4/21/2006 1:18 PM

Figure 17 – Add Contact Screen

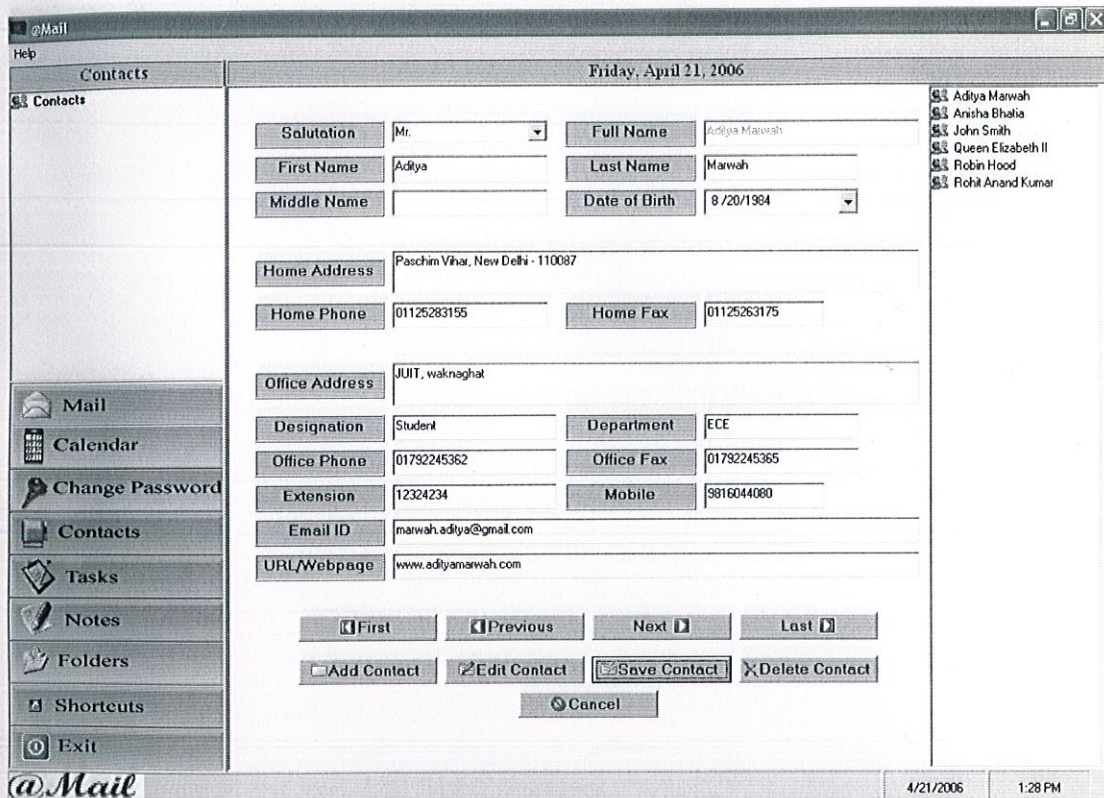


Figure 18 – Edit Contact Screen

Friday, April 21, 2006

Contacts

Aditya Marwah
 Anisha Bhatia
 John Smith
 Queen Elizabeth II
 Robin Hood
 Rohit Anand Kumar

@Mail

4/21/2006 1:31 PM

Figure 19 – Delete Contact Screen

CHAPTER 9

THE CONTACT US SCREEN

The Contact Us Form of the software enables the user to view information about the developers of the software. The form displays Email IDs of the developers who can be contacted through e-mail and would welcome any suggestions.

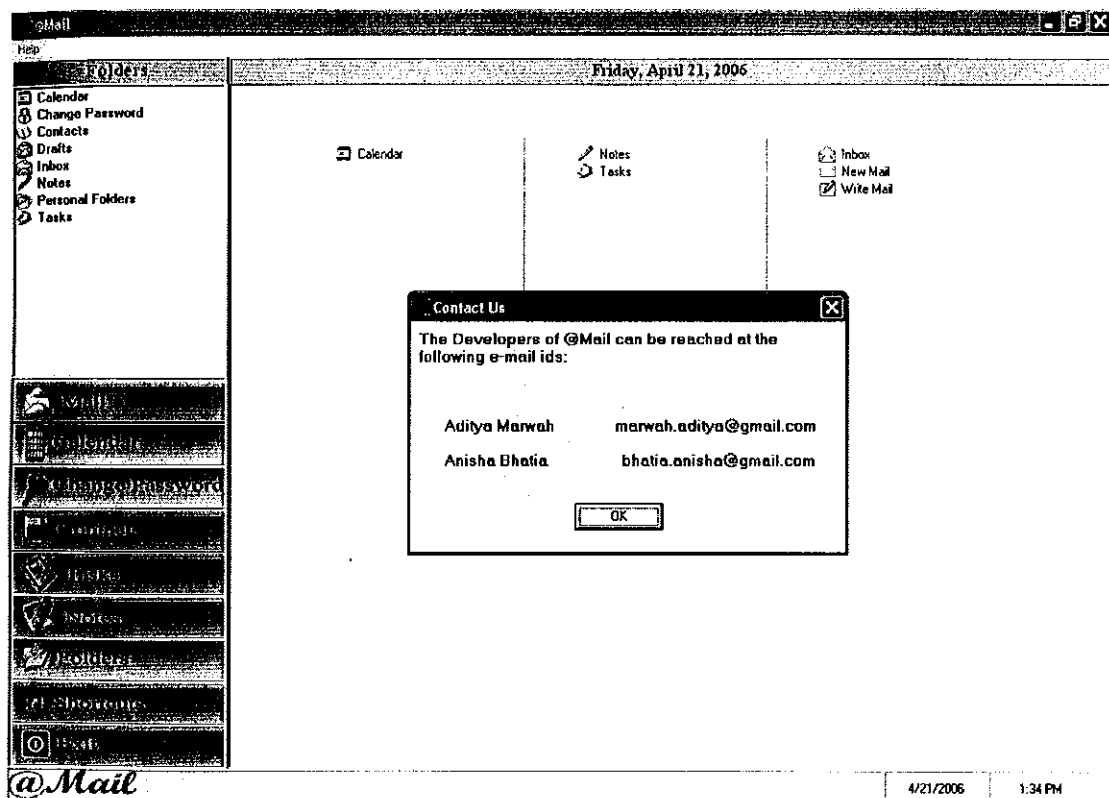


Figure 20 – Contact Us Screen

CHAPTER 10

THE MAIL SCREEN

The Mail Form of the software enables the user to perform various mailing tasks such as send and receive mails. Besides, the user can also view previously received, sent and drafted mails. The software also lets the user arrange mails in different pre-defined folders.

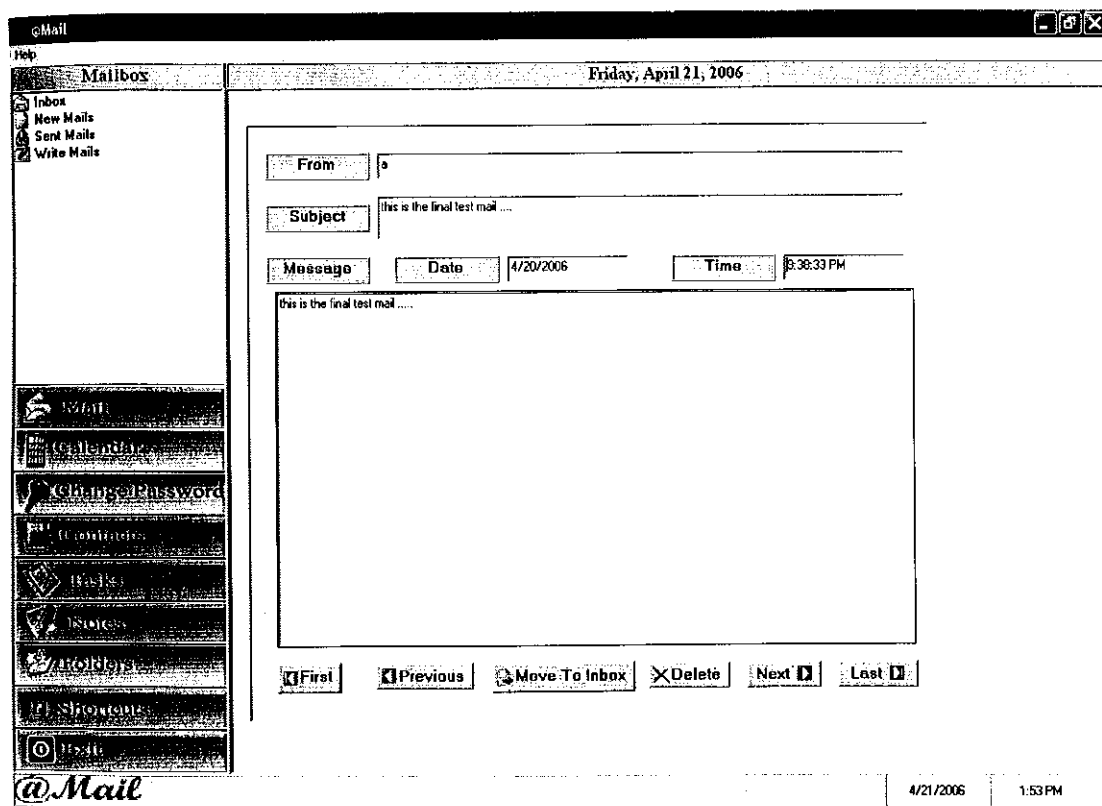


Figure 21 – New Mails Screen

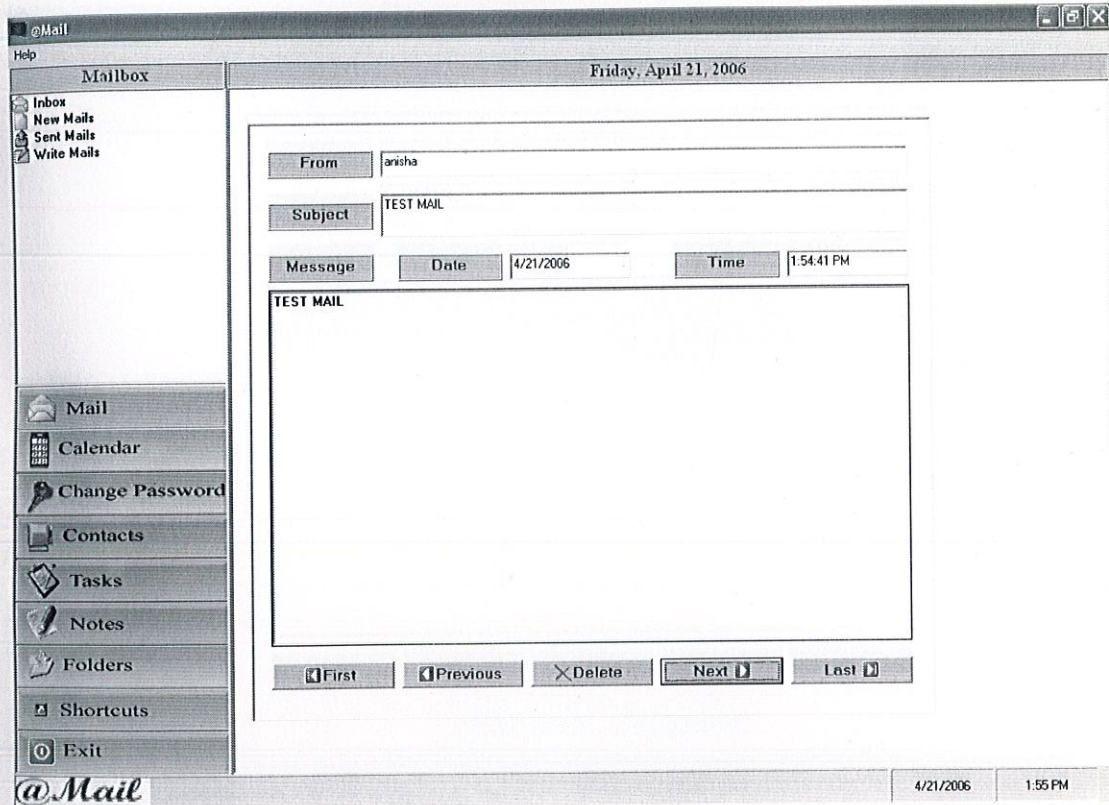


Figure 22 – Inbox Screen

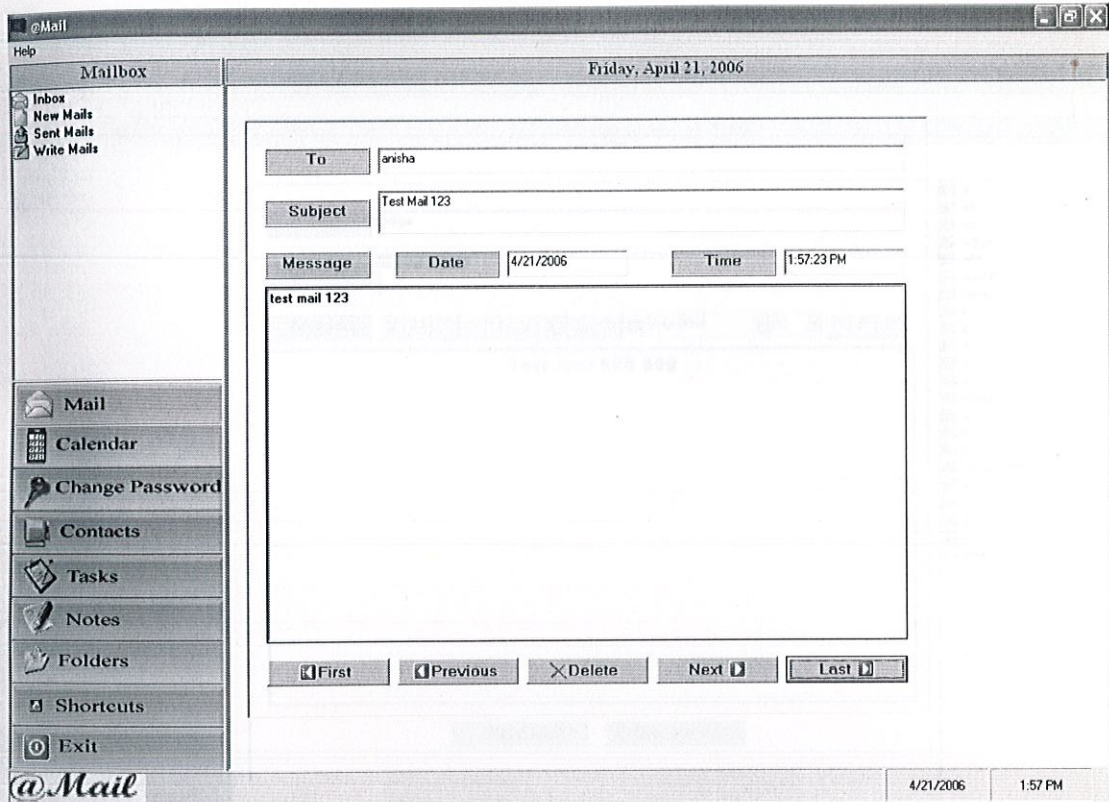


Figure 23 – Sent Mails Screen

Figure 24 – Write Mail Screen

The Notes Form of the software enables you to create notes and perform various functions on them. The user can add, edit, delete, copy, paste, print, etc.

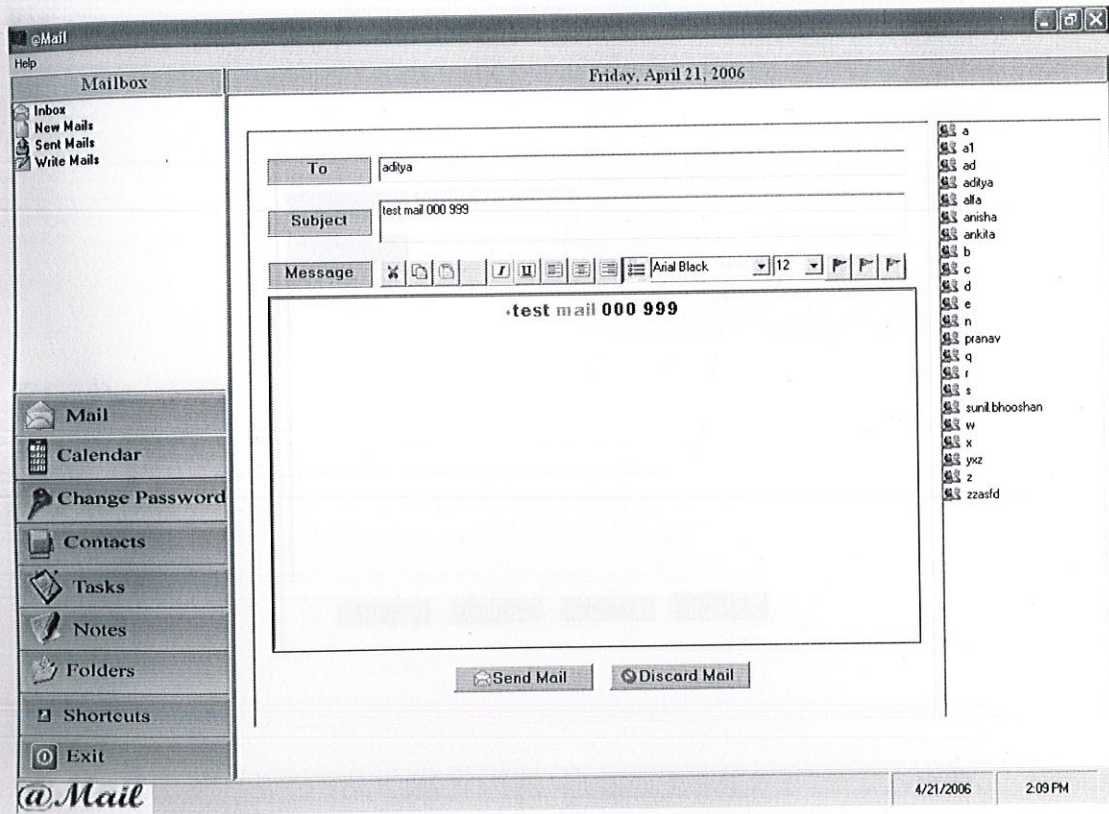


Figure 24 – Write Mail Screen

CHAPTER 11

THE NOTES SCREEN

The Notes Form of the software enables the user to jot down various notes and to perform various functions on them. The user can add, edit, view and delete notes.

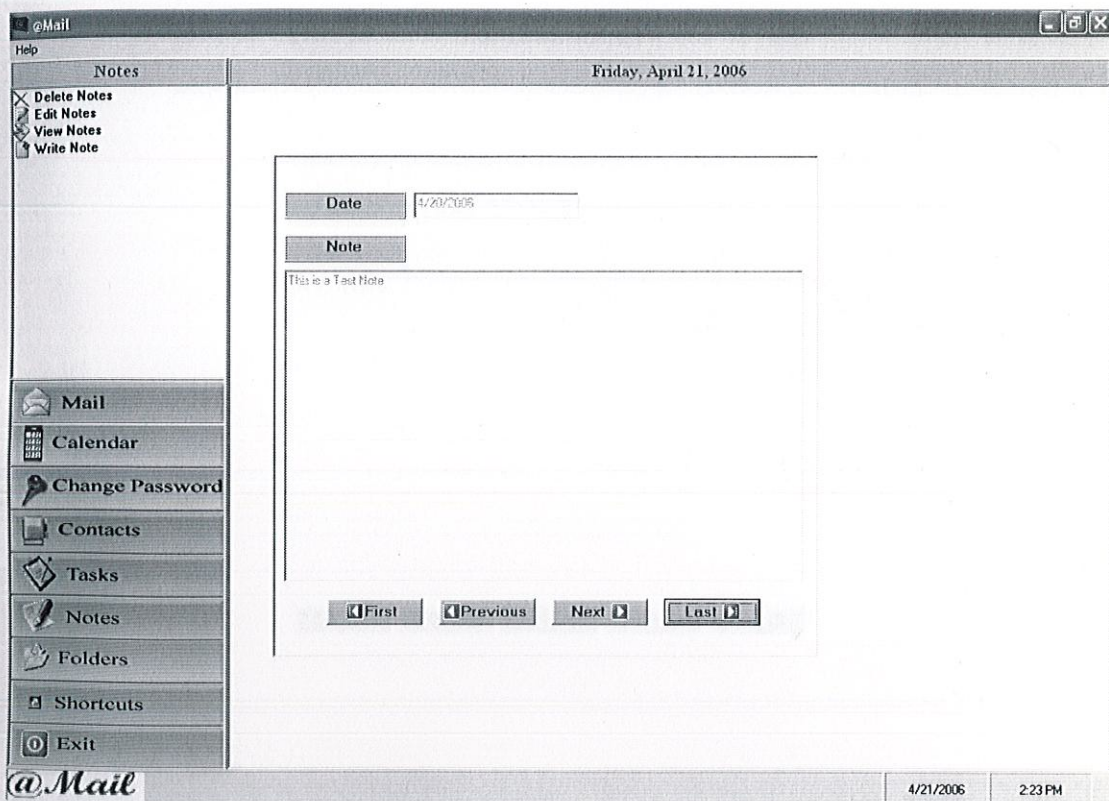


Figure 25 – View Notes Screen

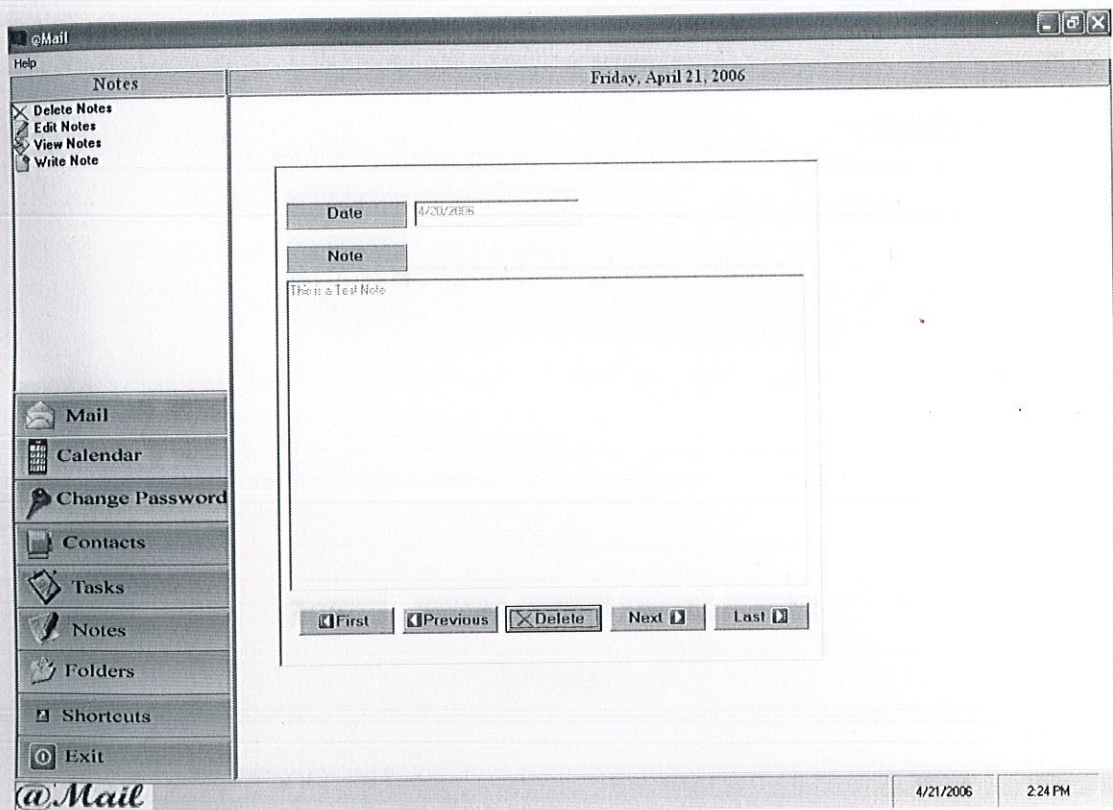


Figure 26 – Delete Notes Screen

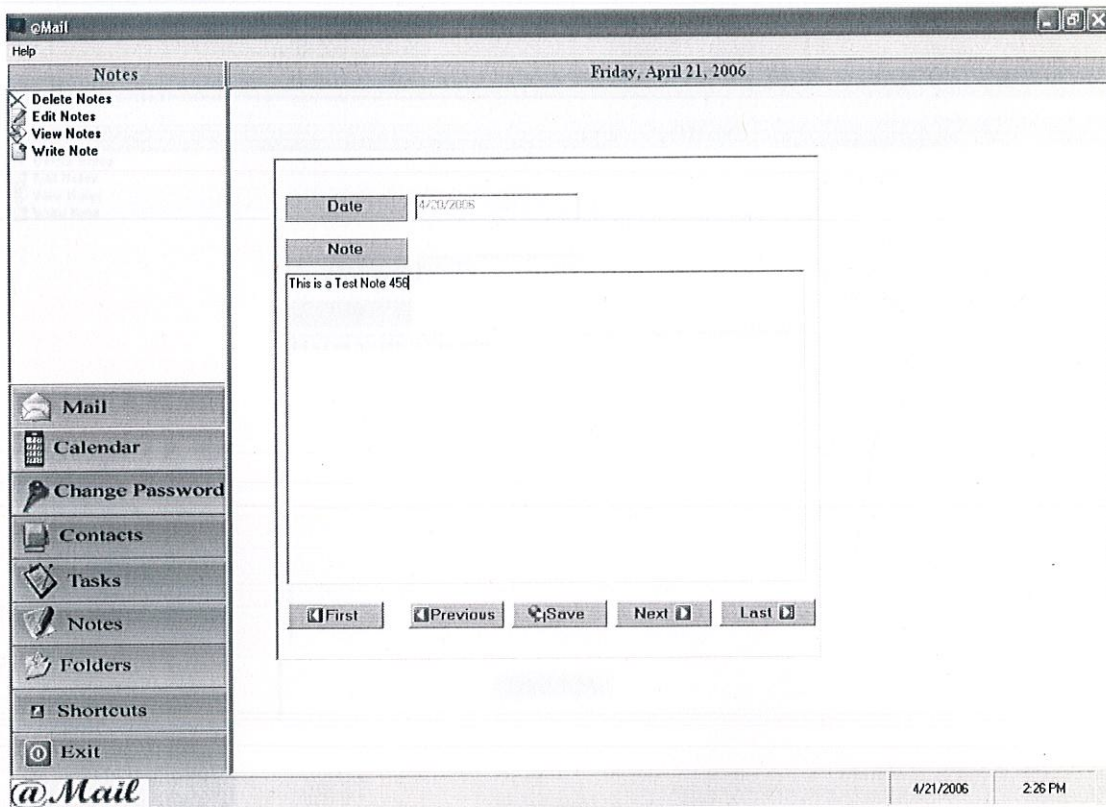


Figure 27 – Edit Notes Screen

The Tasks Form of the software enables the user to put down various tasks, track their progress, prioritize them and in this way keep a track of all tasks. The user can also add, edit, view and delete tasks. The Progress Bar control is added using the Windows Forms controls 6.0 (SP6).

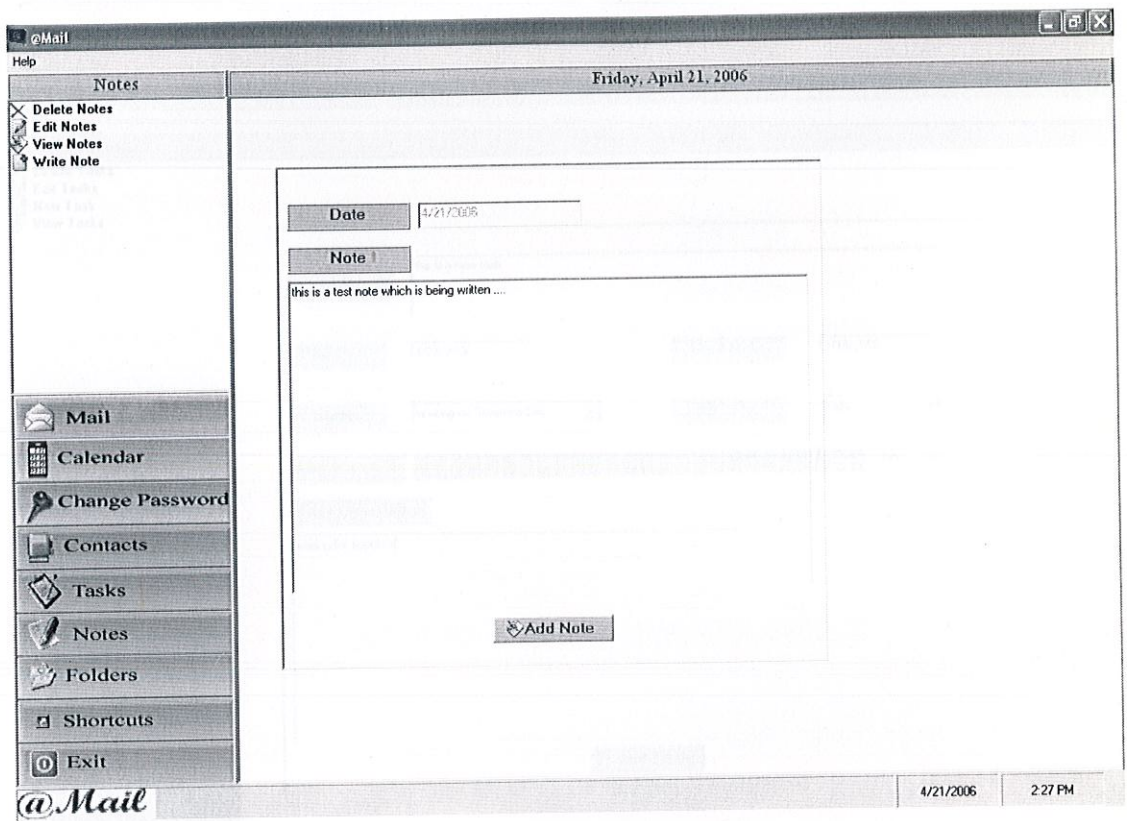


Figure 28 – Write Note Screen

Figure 29 – Add New Task Screen

CHAPTER 12

THE TASKS SCREEN

The Tasks Form of the software enables the user to jot down various tasks, record their progress, prioritize them and in this way keep a track of all tasks. The user can add, edit, view and delete tasks. The Progress Bar control is added using the Windows Common Controls 6.0 (SP6).

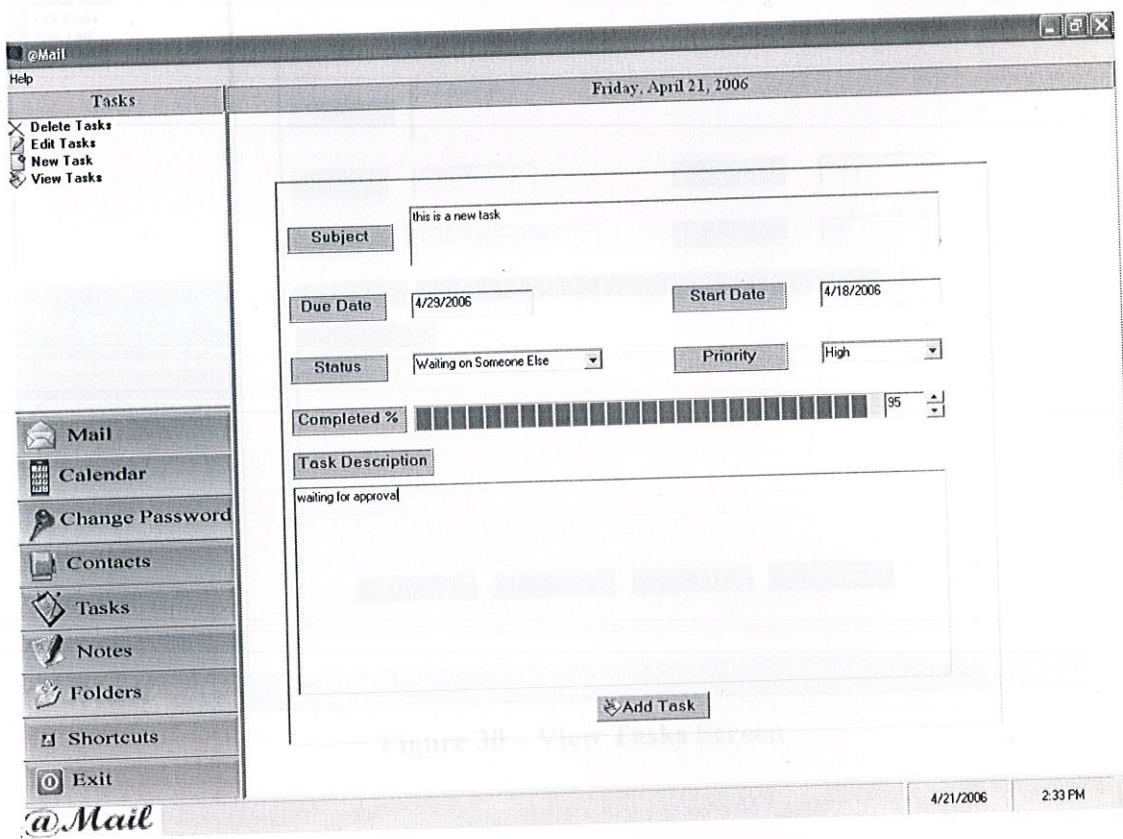


Figure 29 – Add New Task Screen

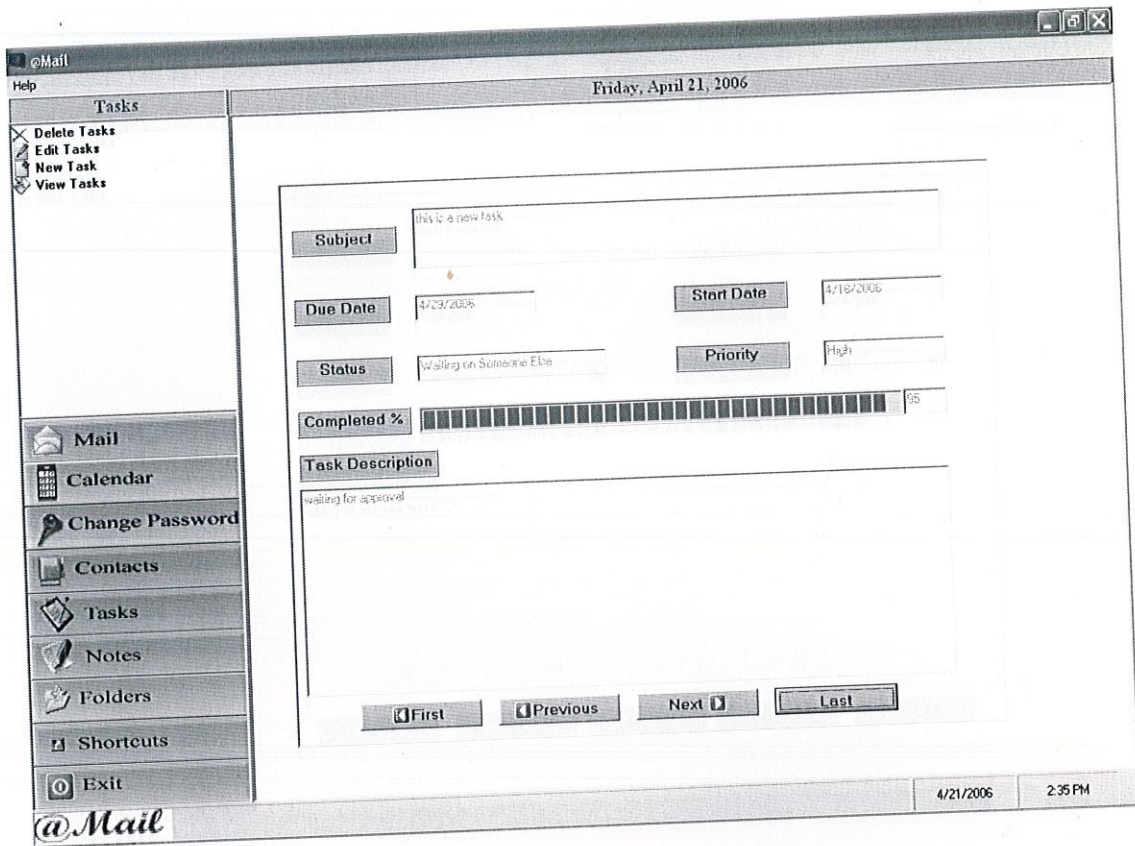


Figure 30 – View Tasks Screen

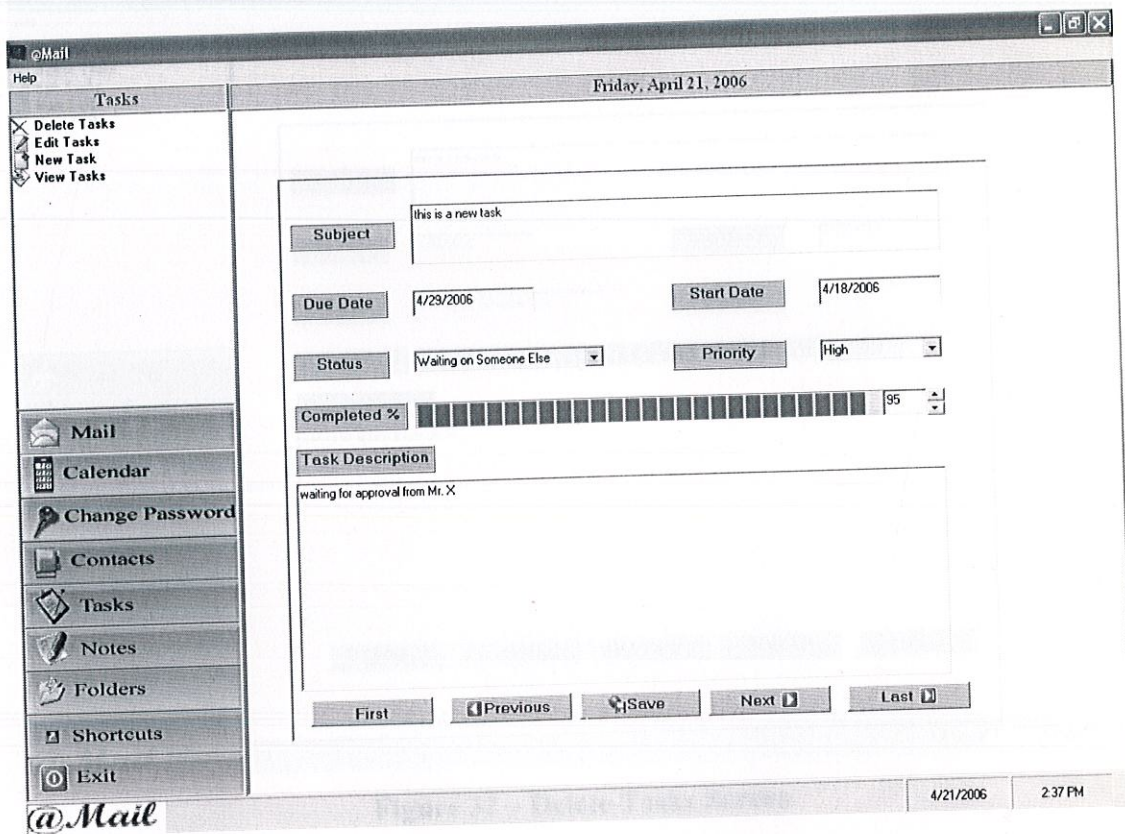


Figure 31 – Edit Tasks Screen

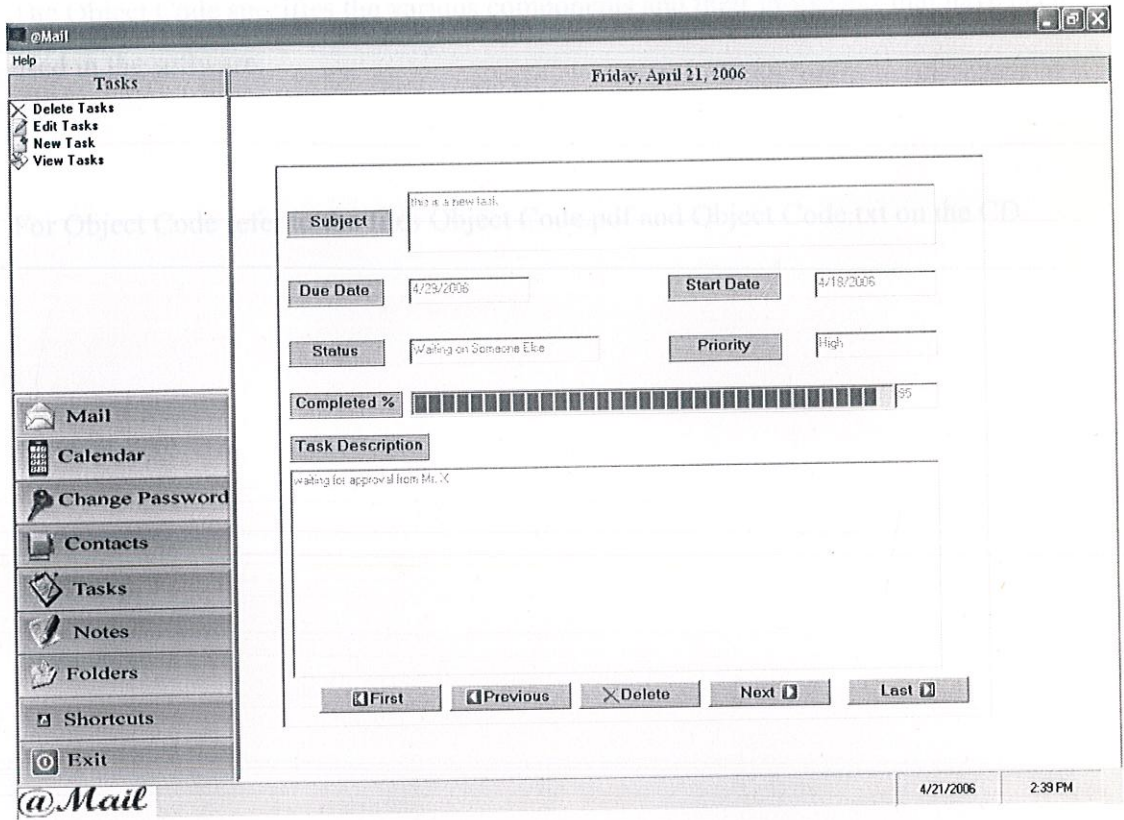


Figure 32 – Delete Tasks Screen

APPENDIX A

OBJECT CODE

The Object Code specifies the various components and their properties that have been used in the software.

For Object Code refer to the files Object Code.pdf and Object Code.txt on the CD.

APPENDIX B

SOURCE CODE

The Source Code contains the actual Visual Basic 6 (SP6) code that has been written to provide functionality to the software.

For Source Code refer to the files Source Code.pdf and Source Code.txt on the CD.

APPENDIX C

INSTALLATION INSTRUCTIONS

Installation CD has been provided with the report.

Run the CD on your Windows – based computer and follow the following instructions –

- Run Setup.exe from the @MAIL Software folder in the CD.
- Go to My Computer and select Map Network Drive from tools menu.
- Map to the @Mail folder on the network where the software is stored.
- Now run the software from the @Mail program group in programs.

APPENDIX D

BIBLIOGRAPHY

Petroutsos, Evangelos *Mastering Visual Basic 6*, Sybex Inc. USA 2002

Cornell, Gary *Visual Basic 6 from the Ground Up*. McGraw Hill Co. New York 1999

Deitel, H.M., Deitel, P.J. & Nieto, T.R. *Visual Basic 6 How to Program* Pearson Education Pte. Ltd. Singapore 2003

APPENDIX E

WEB RESOURCES

www.freevbcode.com

www.planetsourcecode.com

www.blackbeltvb.com

www.dmoz.org

www.codearchive.com

www.profsr.com

www.codeguru.com

www.ostrosoft.com

www.graphics-free.com