

# VCOLAB MAIL SYSTEM

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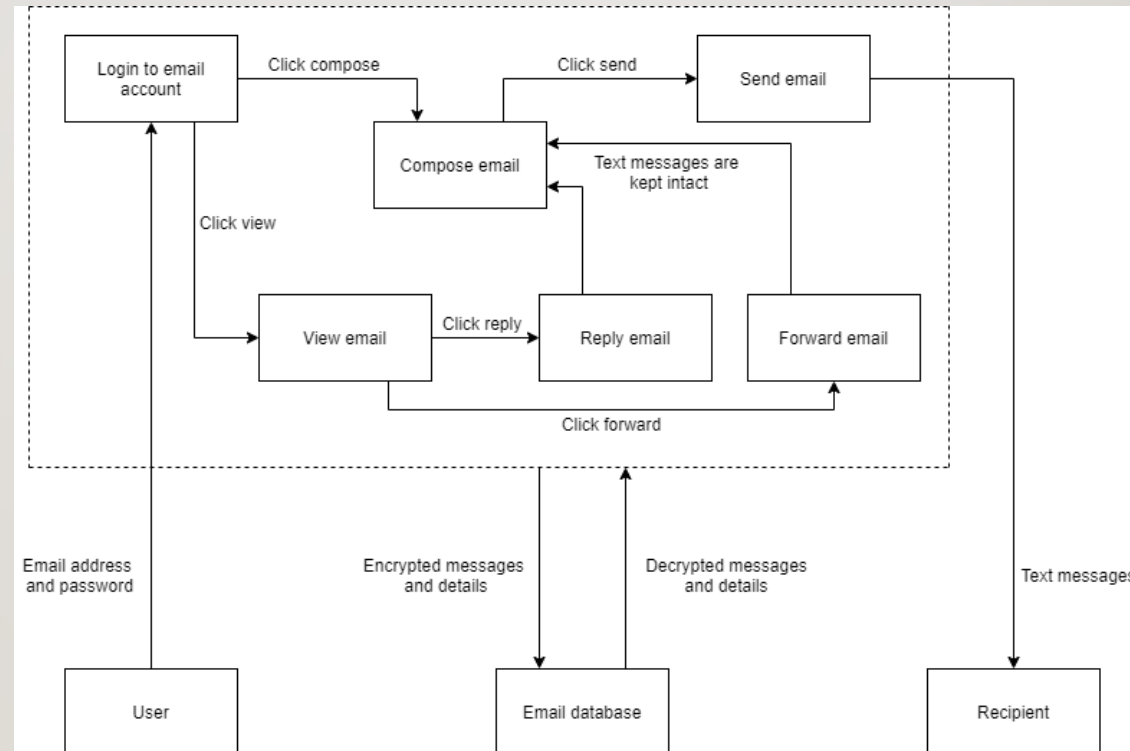
# PROBLEM STATEMENT

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- The objective of the project is to securely transmit the messages between sender and receiver by encrypting the data and storing it safely.
- An algorithm to secure messages sent by the user based on efficiency and confirms the identity of the user by entity authentication using verification and validation.

# METHODOLOGY

- Data Flow Diagram



# IMPLEMENTATION

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- Encryption and Decryption

Text → Range → Hexadecimal → Binary

Binary → Hexadecimal → Range → Text

(space)= $32*4=128$     /= $47*4=188$     range: (128,188)

: = $58*4=232$     @= $64*4=256$     range: (232,256)

[= $91*4=364$     ‘= $96*4=384$     range: (364,384)

{= $123*4=492$     ~= $126*4=504$     range: (492,504)

0= $48*6=288$     9= $57*6=342$     range: (288,342)

A= $65*8=520$     Z= $90*8=720$     range: (520,720)

a= $97*8=776$     z= $122*8=976$     range: (776,976)

# RESULTS – FRONTEND

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- Homepage

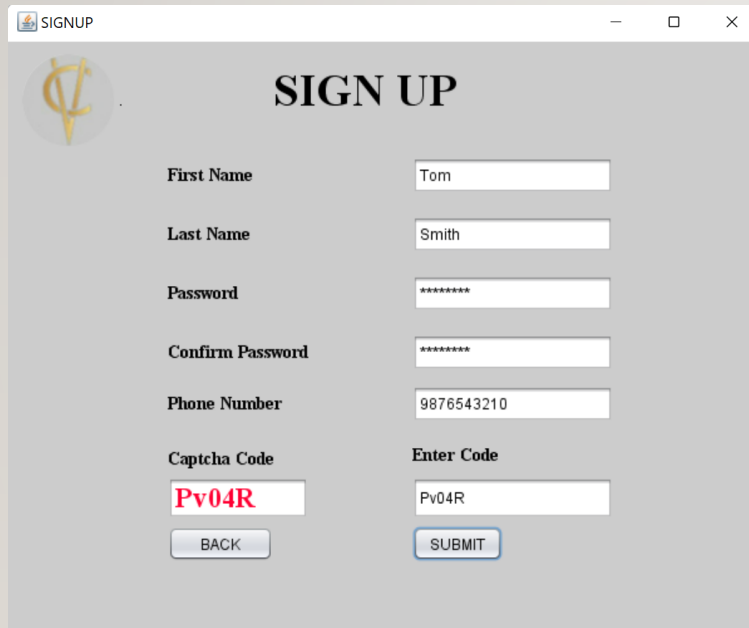




# FRONTEND - CONTD.

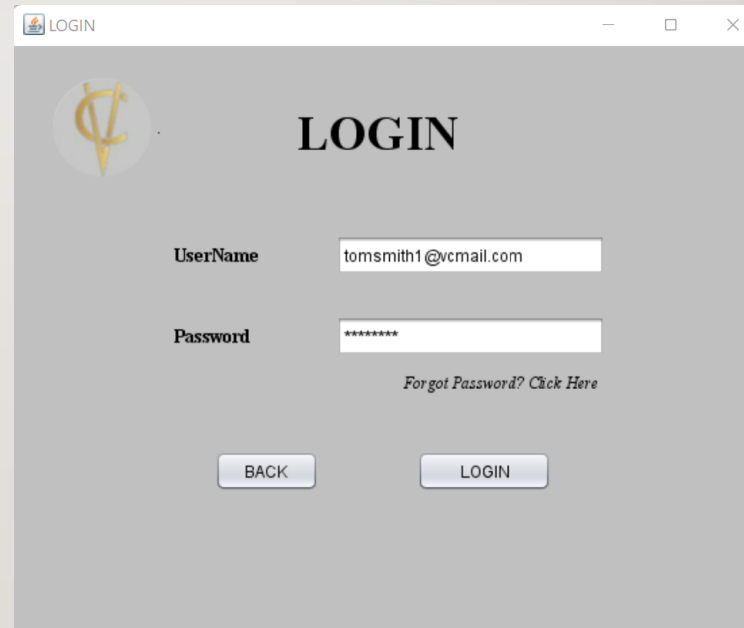
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- Signup page



A screenshot of a web browser window titled "SIGNUP". The page has a light gray background and a logo on the top left consisting of a gold coin with a "V" and a dollar sign. The title "SIGN UP" is centered at the top. Below the logo, there are several input fields: "First Name" with the value "Tom", "Last Name" with "Smith", "Password" with "\*\*\*\*\*", "Confirm Password" with "\*\*\*\*\*", "Phone Number" with "9876543210", and "Captcha Code" with "Pv04R". To the right of the "Captcha Code" field is a label "Enter Code" and another input field with the value "Pv04R". At the bottom, there are two buttons: "BACK" and "SUBMIT".

- Login page



A screenshot of a web browser window titled "LOGIN". The page has a light gray background and the same logo as the signup page. The title "LOGIN" is centered at the top. Below the logo, there are two input fields: "UserName" with the value "tomsmith1@vcmail.com" and "Password" with "\*\*\*\*\*". Below the password field is a link that says "Forgot Password? Click Here". At the bottom, there are two buttons: "BACK" and "LOGIN".

# FRONTEND - CONTD.

- Compose mail

The screenshot shows a web browser window titled "tomsmith1@vcmail.com - COMPOSE MAIL". The interface includes three input fields for "FROM" (tomsmith1@vcmail.com), "TO" (davidlee2@vcmail.com), and "SUBJECT" (Demo Mail). Below these fields is a large text area containing the text "This is a sample mail to demonstrate the working of VColab Mail System." At the bottom of the window are two buttons: "BACK" and "SEND".

## Inbox

The screenshot shows a web browser window titled "davidlee2@vcmail.com - Home". At the top is a search bar containing "davidlee2@vcmail.com". Below the search bar are five buttons: "COMPOSE", "INBOX", "SENT", "RELOAD", and "LOGOUT". Below the buttons is a table with the following data:

SENDER	CONTENT	DATE	STATUS
tomsmith1@vcmail.com	This is a sample mail t...	05-11-2021	Pending

Below the table is a large, empty light blue rectangular area. At the bottom of the window is a grey bar.

# BACKEND

- Account table

```
mysql> desc account;
```

Field	Type	Null	Key	Default	Extra
id	int	NO	PRI	NULL	auto_increment
fname	longtext	YES		NULL	
lname	longtext	YES		NULL	
username	longtext	YES		NULL	
password	longtext	YES		NULL	
phonenum	longtext	YES		NULL	

```
6 rows in set (0.04 sec)
```

```
mysql> select * from account;
```

id	fname	lname	username	password	phonenum
1	1010100000/1101111000/1101101000/	1010011000/1101101000/1101001000/1101000000/1101000000/	1110100000/1101111000/1101101000/1110011000/1101101000/1101001000/1101000000/1101000000/100100110/1000000000/1110110000/1100011000/110101000/1101001000/110111000/1101000000/1101001000/1101000000/110101000/	1100001000/1110011000/1100100000/1100110000/11	101010110/101010000/101001010/101000100/100111110/100111000/100110010/100101100/100100000/
2	1100100000/1100001000/1110110000/1101001000/1100100000/	1101100000/1100101000/1100101000/	1100100000/1100001000/1110110000/1101001000/1100100000/1101100000/11001	01000/1100101000/100101100/1000000000/1110110000/1100011000/1101101000/1100001000/1101001000/1101111000/1101101000/	1110001000/1110111000/1100101000/1110010000/11

```
2 rows in set (0.00 sec)
```



## BACKEND - CONTD.

- Email table

```
mysql> desc email;
```

Field	Type	Null	Key	Default	Extra
sender	longtext	YES		NULL	
receiver	longtext	YES		NULL	
content	longtext	YES		NULL	
date	longtext	YES		NULL	
id	int	NO	PRI	NULL	auto_increment
subject	longtext	YES		NULL	
status	longtext	YES		NULL	

```
7 rows in set (0.00 sec)
```

[illegible]

# CONCLUSION

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- It identifies the sender and their intentions it provides the recipient with the sender's contact information.
- A well constructed email sign-off is essential to leave the reader with a positive impression. Writing clear, professional emails can help position one positively in their career, build a good network of people and potential employers.
- This software helps mainly in communicating confidential mails from the sender to the receiver.