



Department of Computing

**Software Projects
(55-407815-AF-20223)**

Stage 1 and Stage 2

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1. Stage 1

1.1 Software Project Artefacts

These are going to be the type of users that will use the system. I will be displaying the type of scenarios they will be in later.

Name:	Description:
Users	They are the users of the social media application.
Administrator	Their job is to check users' accounts/post/message to see if it's suitable to post to the public or in private. (Blacklist vulgar images or words).

1.1.1 Project Description and Users.

In order to do the study, I will speak with my clients to determine the program's requirements. To find out what the company is looking for, I am going to interview an administrator of the social media department. The user story will be crafted so that the questions will help the organization achieve its goals.

- Users are the average daily users of this application. They mainly use the app to upload pictures and interact with other users.
- The administrator is a team of people who check users' activity, to make sure they are interacting with others appropriately.

1.1.2 User Stories and Acceptance Tests

Meeting the Users.

User Story	Notes	Acceptance Test(s)
The user wants to enter their details when making an account. (Sign up).	The User should be able to add their details.	Verify that the application can store user details.
The User wants to upload a photo on their profile.	The User should be able to upload their images on their profile.	Verify that the application can upload user images.
The User wants to send messages to other users.	The User should be able to send messages to different users.	Verify that the application allows users to message each other.
The User wants to change their profile picture.	The User should be able to change their profile image.	Verify that the application allows users to message each other.
The User wants to add a friend (another user).	The User should be able to add another user.	Verify that the application allows users to befriend each other.

The User wants to remove (un-add) a user.	The User should be able to remove certain users, so they won't be seen on their page.	Verify that the application can allow users to remove users.
The User wants to delete photos from their profile.	The User should be able to delete their own images.	Verify that the application allows users to delete their own images.
The User needs OTP to verify account.	The user should get an OTP to their number or email. (One time pin).	Verify that the application sends an OTP to the user.
The User wants to block a user.	The user should be able to block certain users.	Verify that the application allows users to block users.
The User wants to report an account.	The user should be able to report an account.	Verify that the application allows users to report accounts.
The User wants to report a photo.	The user should be able to report a photo.	Verify that the application allows the user to report photos.
The User wants to report messages.	The user should be able to report messages.	Verify that the application allows the user to report messages
The User wants to report a comment.	The user should be able to report a comment.	Verify that the application allows the user to report a comment.
The User wants to contact the administrating team for help.	The user should be able to contact the help centre.	Verify that the application allows the users to contact the help team.
The User wants to log-in.	The user should be able to log into the application.	Verify that the application allows users to log in.
The User wants to delete their account.	The user should be able to delete their account.	Verify that the application allows the users to delete their account
The User wants to log out.	The user should be able to log out.	Verify that the application allows the users to log out of their account.
The User wants to make account public or private.	The user should be able to make account public or private.	Verify that the application allows the users account to be public or private.
The user wants to search for other users.	The user should be able to search for other accounts.	Verify that your application allows users to search for other accounts.
The user wants to change their password.	The user should be able to change their password.	Verify that your application allows users to change their passwords.

Meeting the Administrator.

User Story	Notes	Acceptance Test(s)
The Administrator wants users' photos to be appropriate, even if it's not reported.	The Administrator should be able to check if users' photos are appropriate.	Verify that the application allows Administrators to check users' images.
The Administrator wants to check users' messages to be	The Administrator should be able to check messages when reported.	Verify that the application allows Administrators to check if users' messages.

appropriate, if reported.		
The Administrator wants to check accounts, if reported.	The Administrator should be able to check accounts when reported.	Verify that the application allows Administrators to check users' accounts.
The Administrator wants to check comments, if reported.	The Administrator should be able to check comments when reported.	Verify that the application allows Administrators to check users' comments.
The Administrator wants to message to users who need help.	The Administrator should be able to message users who need help.	Verify that the application allows Administrators to reply to users' questions.
The Administrator wants to log in/out or sign up if they are new.	The Administrator should be able to log in/out or sign up into their account.	Verify that the application allows Administrators to log in/out or sign up.

1.2 Software and its Presentation

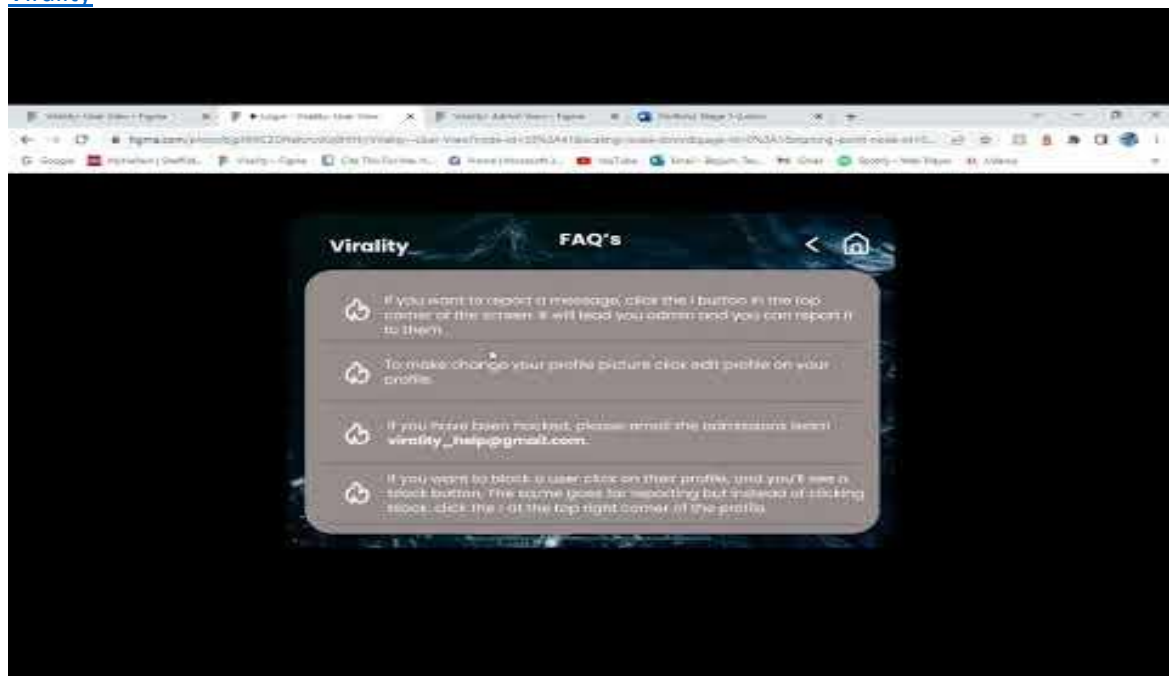
1.2.1 The Low Fidelity Software Prototype

[User View - Figma](#)

[Admin View - Figma](#)

1.2.2 Video Presentation

[Virality](#)

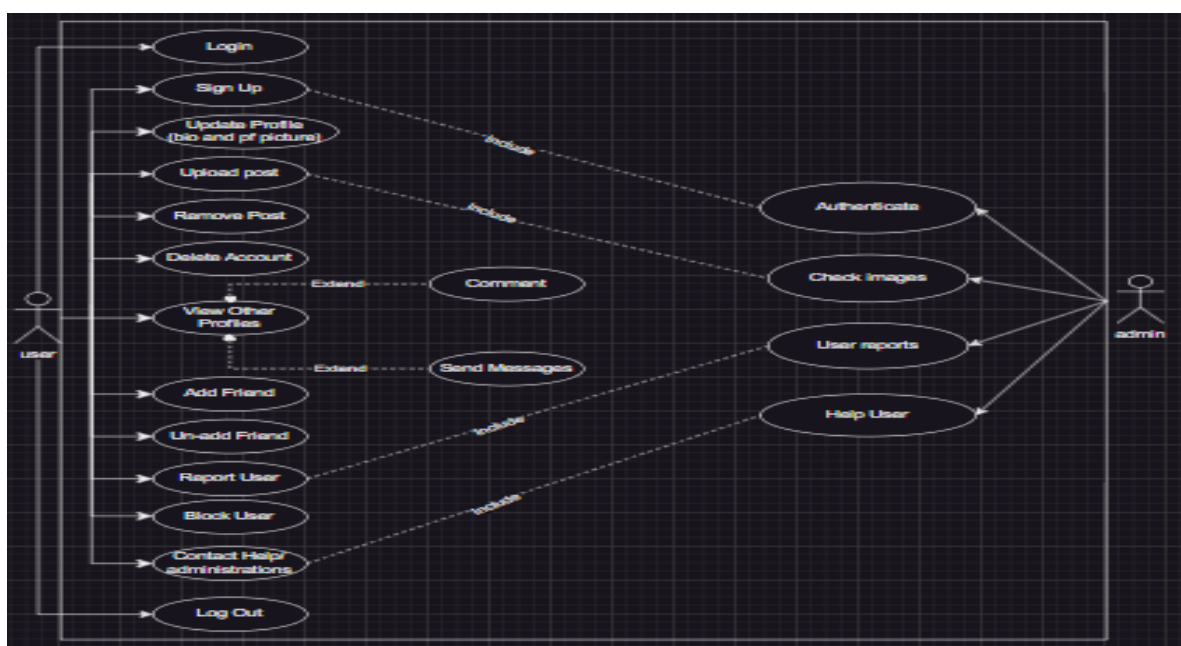


1.3 Incorporation of Formative Feedback

Stage 1		
	Feedback Received	Action Taken
Week 1	I was told to get rid of one of my actors, which was a developer because it was not necessarily a user since its more backend.	I got rid of my user & user stories for my developer.
Week 2	Add a FAQ to my user side of my prototype.	I have now added a FAQ to my user view.
Stage 2		
	Feedback Received	Action Taken
Week 1	I had to use the correct notion for he uses case diagrams.	I am using the correct notions now.
Week 2	In my conclusion I should relate back to all my points I have made about the LSEPI to show how it relates back to my application.	I have chosen the relevant laws to relate back with my application now.
Week 3	ERD Diagram needs to be described with detail from new user perspective.	I have now added, OTP to the ERD (new user perspective).
Week 5	Make sure the database IDs are linked properly with certain tables.	I have now corrected them so that it links without faults.

2. Stage 2

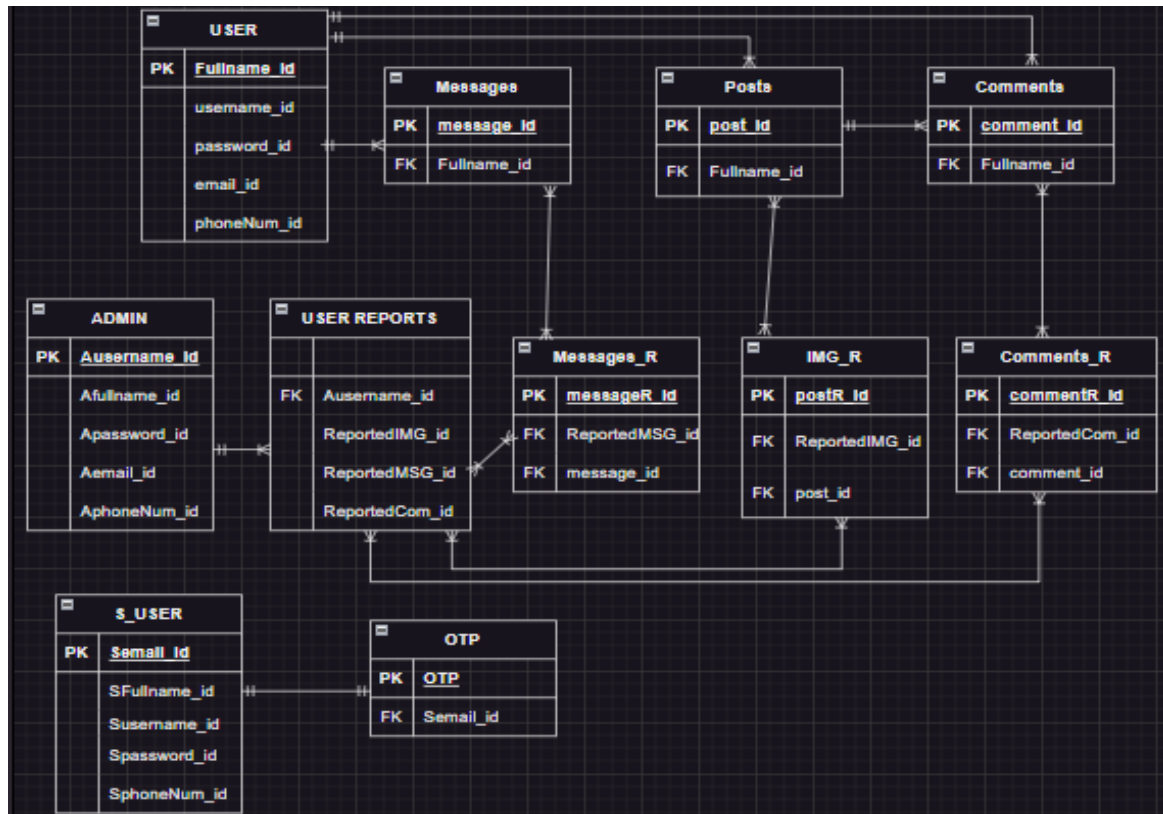
2.1 Use Case Diagram



There are two actors in this diagram: "User" and "Admin." The "Admin" interacts with the application by carrying out various operations which is made possible when the "User" is in the application. Both actors can carry out a number of the functions and use cases that the programme offers. Those who would utilise the app are referred to as users. Administrators have access to the software's back-end operations.

2.2 Design

ERD Diagram



The diagram is showing User, Admin and S_User. User and S_User function the same however the only difference is that when a new user(S_User) wants to create an account, and OTP will be sent to them via email. Once verified they can login as normal, like the User. Users can send messages, post images, and leave comments. They could also report messages, posts and comments which would be sent to admissions to be reviewed. Admin can check User reports which would be separated in its own categories (Messages_R, IMG_R,Comments_R).

Wireframes:

Sign Up

Fullname:

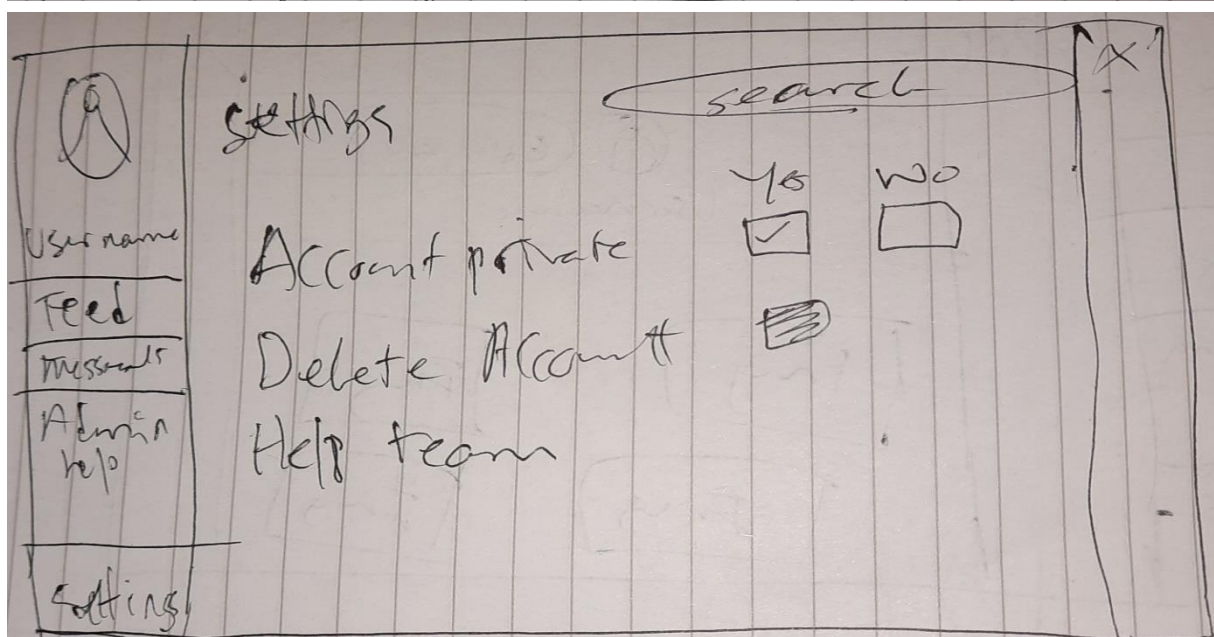
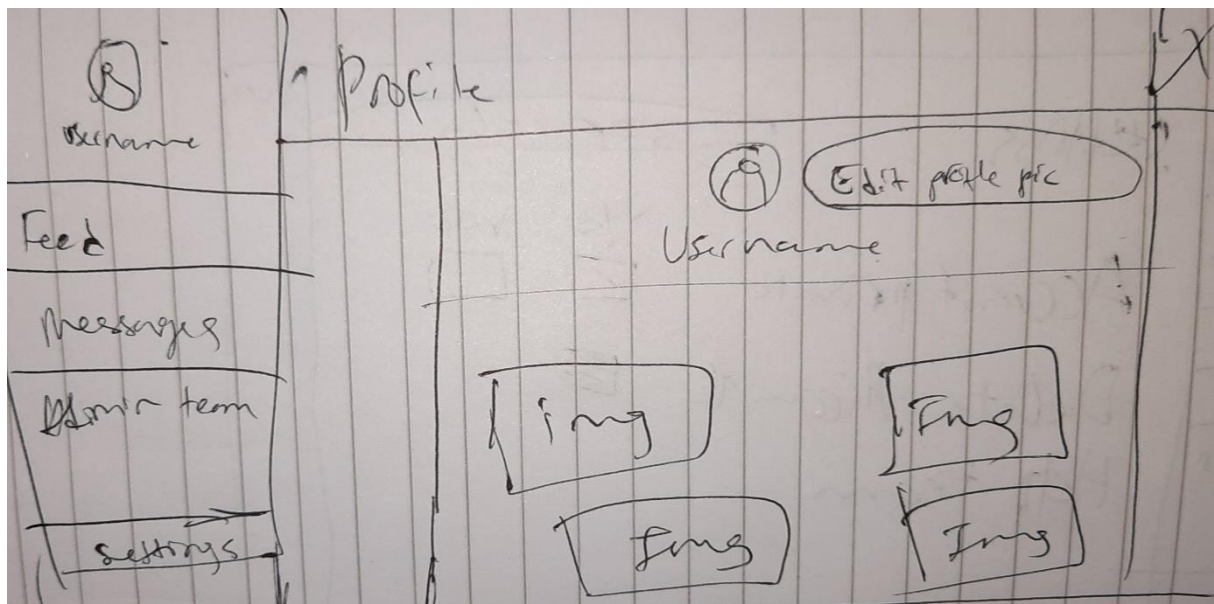
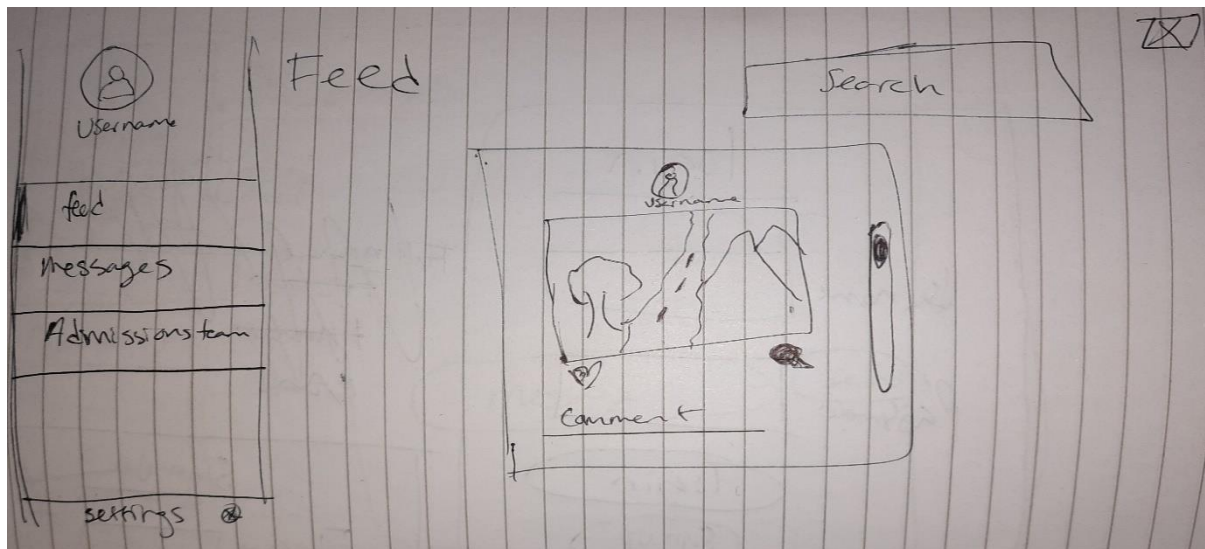
Email:

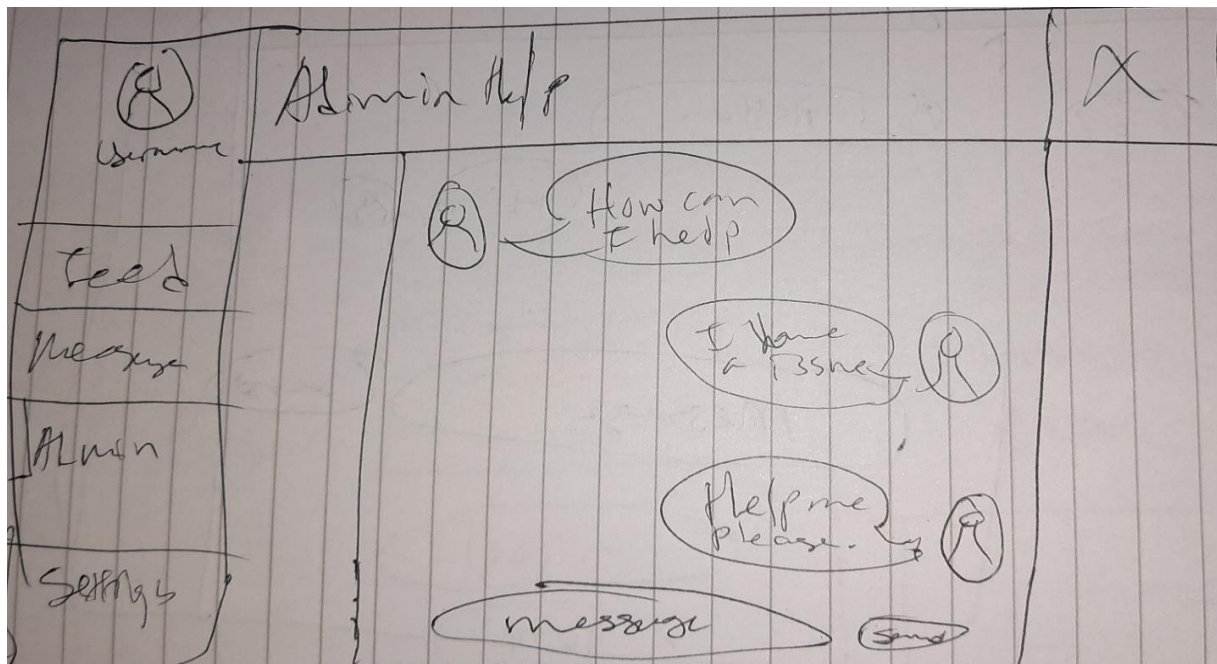
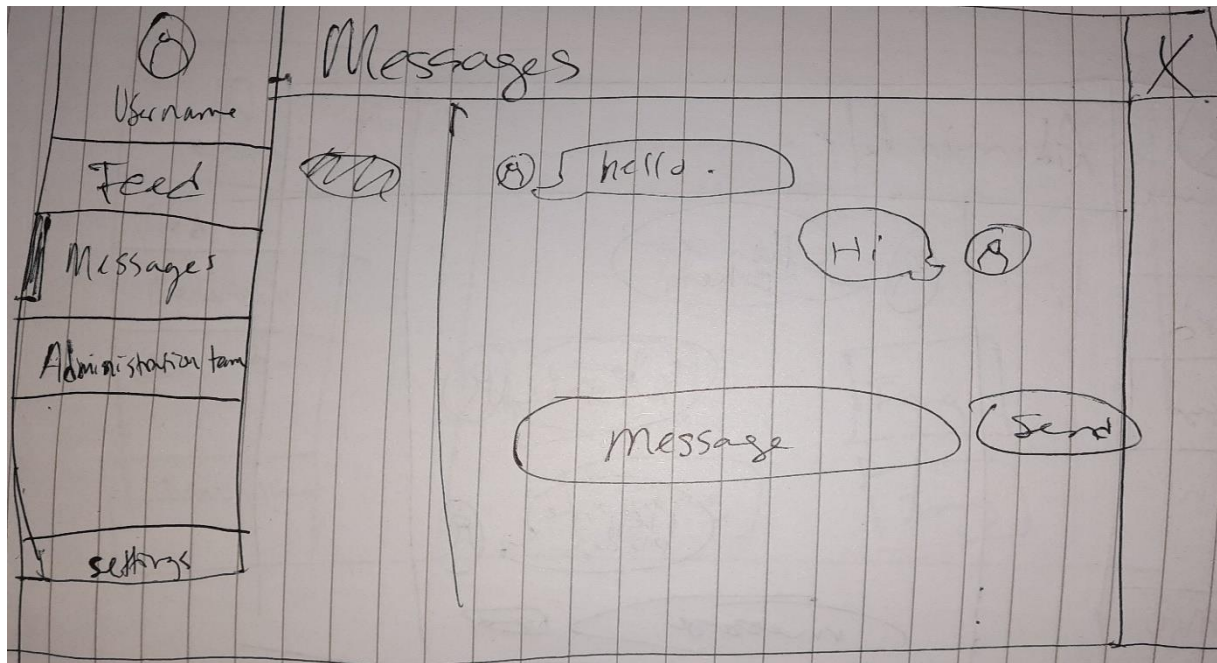
Number:

login

Username:

Password:





Wireframes were depicted in the drawings up there; they gave you a general concept of how I intended my software to appear. I had a general notion of how I wanted it to look at Stage 1, so I didn't create many wireframe sketches.

2.3 Software and its Presentation

2.3.1 Virality Software

It's in a zip file called Project 2 (Tasnim Begum)

2.3.2 Video Presentation

[Virality Final](#)

2.4 Transitioning a Prototype to Production-Quality Software

To turn my software prototype into a high-fidelity product, I used a systematic approach that involved refining the entity-relationship diagrams (ERD), developing low fidelity prototypes, and creating a database. I then implemented the necessary features and improvements using C#.

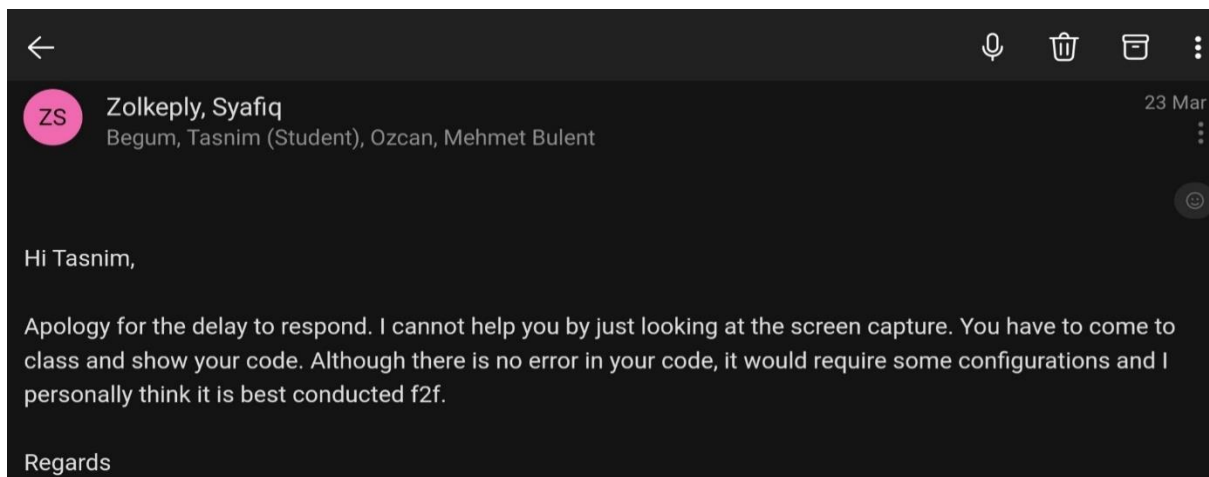
2.5 Test Specification

Test ID	Test Description	Test Scenario	Expected results	Test Results	Remark	Programmer s' response
T1	User can login to application	User puts in username and password to login.	The user should be taken to the main page.	Pass	N/A	N/A
T2	Admin can login to application	Admin puts in username and password to login.	The admin should be taken to the main page.	Pass	N/A	N/A
T3	User can see their feed.	The user clicks on feed, to see the feed.	The user should be able to see the feed page.	Partially pass.	There is a like, report and comment button but they do not send notifications to admin about it being reported. You also can't scroll on the feed but due to lack of knowledge this was not done.	Since its high fidelity it doesn't need to be sent to admissions program since this is too high level.
T4	User can see messages.	The user clicks on messages tab to see messages.	The user should be able to see their messages page.	Pass	N/A	N/A
T5	User can view profile.	User clicks on profile to view their profile	The user should be able to view their profile page.	Pass	N/A	N/A
T6	Users can go on Help Team.	User clicks on help team tab to get help.	The user should be able to view help team page.	Pass	N/A	N/A
T7	Users can go on settings.	Users click on settings tab to view settings.	Users should be able to view settings page.	Pass	N/A	N/A
T8	Admin can go on user help.	Admin clicks on User help tab to give help.	The admin should be able to view user help page.	Pass	N/A	N/A
T9	Admin can go on reported users.	User clicks on reported users tab to check users' account.	The admin should be able to view reported users' page.	Pass	N/A	N/A
T10	Admin can go on reported/image checks.	Admin clicks on image checks tab to check User posts.	The admin should be able to view image check page.	Pass	N/A	N/A
T11	Admin can go on reported messages.	Admin click on reported messages tab to view messages.	Admin should be able to view reported messages page.	Pass	N/A	N/A
T12	User gets OTP when creating new account.	On the sign-up page users type their email and click send OTP.	The user should be able to login if they typed the correct code.	Pass	N/A	N/A

		They get a code on their email which they then type in and verify.				
T13	User can post images	When the user, clicks upload photo, they can post an image	The user should be able to post pictures.	Fail	When button is clicked you should be able to upload an image that's then stored in a database but due to my lack of knowledge this was not properly executed. It was attempted though.	N/A
T14	User can post comments.	When the user types a comment and clicks send, it's posted.	The user should be able to post comments.	Partial Pass	You could only send one comment which wasn't stored into the database. However, it was attempted.	N/A
T15	User can send messages	When the user is in a chat, they can send messages.	The user should be able to send a message.	Partial Pass	The issues were that you can only send a single message and that it wasn't stored in a database. This was all due to limited knowledge. It was attempted though.	N/A
T16	User can edit profile.	When the user clicks edit profile, they should be able to edit their profile.	The user should be able to alter their profile	Fail	The user can't change their username. However, an attempt was done.	N/A
T17	User can delete images.	When the user clicks delete, they should be able to delete images.	The user should be able to delete photos.	Fail	The user can't delete photos. However, an attempt was done.	N/A
T18	User can delete account.	When the user goes to settings and clicks delete accounts, they should be able to delete account.	The user account should be deleted.	Fail	The user can't delete their accounts, but they have attempted a solution.	N/A
T19	User can go public or private.	When the user goes to settings, they should be able to be public or private by checking the box.	The user account should be public or private.	Partial pass	The user can check off if they want to be public or private, but it isn't correctly connected to database, so account would still be public. However, attempt was made to try and aid solution.	N/A
T20	User can report account.	When the user clicks the report button, they should be able to report the account.	The account should be reported.	Partial pass	The user can click report to report account, but it's not properly connected to database, to mark it as reported.	N/A

					However, attempt was done to try a fix situation.	
T21	User can report image.	When the user clicks the flag icon, they should be able to report image.	The user image should be reported.	Partial pass	The user can report the image however it's not properly connected to database to mark as reported. However, it was attempted.	N/A
T22	Admin gets OTP when creating new account.	On the sign-up page admin type their email and click send OTP. They get a code on their email which they then type in and verify.	The admin should be able to login if they typed the correct code.	Pass	N/A	N/A
T23	Admin can delete user account on reported messages	On reported messages, admin can click delete to remove user account.	The admin should be able to delete account.	Partial Pass	The admin can't delete only message box appears; however, it's not properly connected to database as deleted. Nonetheless, it was attempted	N/A
T24	Admin on Reported IMG, can Pass, Delete & delete comments.	On Reported IMG, admin can click Pass, Delete & delete comment to change user image or comment.	The admin should be able to do all these activities. Pass to Pass the image, delete to delete the image, and delete comment to delete the comment.	Partial Pass	The admin can click these with an appropriate message box popping up. However, it's not properly connected to database. It was attempted though.	N/A
T25	Admin can send message on user help.	On User Help admin types, a message and clicks send.	On User Help the admin should be able to send users a message.	Partial Pass	You could only send one comment which wasn't stored into the database. However, it was attempted.	N/A
T26	Admin on User Reports can Pass, Warn & Delete user account.	On User Reports there is a Pass button which is good, a warning button which sends warning to user and there's a delete button that deletes account.	On User Reports admin should be able to Pass, Warn and delete the user account.	Partial Pass	The admin can click these options with appropriate message boxes that pop up. However, it was not properly connected to a database. It was attempted though.	N/A

2.6 Incorporation of formative feedback



Sir proposed that I conduct face-to-face but since there wasn't much time left and face-to-face was not feasible at that time, I produced another option. Simple Mail Transfer Protocol, or SMTP, proved to be fairly difficult for me to use when I initially started utilising it for my programme. There are numerous ports that can be used, including ports 25, 465, 587, and others. It was challenging to determine which port to use, especially since various email providers need various ports and some ports can be restricted by firewalls or ISPs.

I found out through trial and error that using SMTP with a Gmail account might also be challenging. Google's security settings may prevent less secure apps from logging into your account, leading to failed authentications. Nevertheless, by altering the options in my Google account settings, I was able to resolve this problem. I had developed an app-specific password to use in my SMTP code and allowed less secure apps. This made it possible for my programme to successfully authenticate and send emails over Gmail using the appropriate SMTP port. Overall, utilising SMTP can be difficult, but it is doable with a little perseverance and expertise.

3. Evaluative Report on Legal, Social, Ethical and Professional Issues.

LSEPI means Legal, ethical, social, professional, and institutional considerations. It refers to the guidelines of conduct that organizations follow to ensure responsible use of information.

Legal considerations:

- Copyright laws: Virality must respect the copyright of others and not allow the distribution of copyrighted material without permission.
- Defamation laws: Virality must take steps to prevent users from making defamatory statements and take action against those who do.
- Data protection laws: Virality must protect users' personal data and inform them of how their information will be used or else they could be severely fined. In 2019, the British Airways was fined £183 million for a data breach that exposed the personal data of approximately 500,000 customers. This highlights the importance of data protection laws and the need for organizations to take legal considerations seriously when using social media platforms (BBC, 2019).

In conclusion, there are certain legal considerations that must be properly followed when using Virality by both individuals and organisations. Among the legal frameworks that relate to Virality use are copyright laws, defamation laws, and data protection regulations. Users and organisations must be aware of these laws and take action to abide by them in order to prevent legal repercussions. These laws include penalties for noncompliance, including fines, legal action, and reputational harm.

By following the regulatory frameworks, individuals can use Virality in an ethnically acceptable manner while enjoying the benefits of this communication tool.

Ethical considerations:

- Confidentiality: Virality must respect users' privacy and not share their personal information without their consent or else they would be taken to court.
- Fairness and impartiality: Virality must treat all users fairly and not show bias towards any particular group.
- Responsibility: Virality must take responsibility for the content that is published on their platform and take steps to remove harmful or illegal content.

The Yahoo data breach case serves as a stark reminder of the importance of upholding values such as confidentiality, fairness, and responsibility in preserving user trust and safety. In the context of social media, these values are especially crucial given the impact these platforms have on society and the potential for the instant spread of information (Thielman, 2016). Just as Yahoo failed to adequately safeguard user data and disclose breaches in a timely manner which lost them millions, social media platforms must prioritize protecting user privacy and all users are treated equally, and no group is given preferential treatment, thanks to fairness and impartiality. To protect its users, Virality must exercise responsibility by taking action to delete offensive or illegal content. These guidelines are especially crucial in the context of social media because of how frequently these platforms are used and how much of an impact they have on society (Sherrell, 2021). By doing this, these platforms can guarantee that users are treated with respect and safety, that their personal information is protected, and that there is parity across users.

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