



North South University

Electrical & Computer Engineering

CSE 327.9

Software Engineering

Project Report:

Bizcon

Abeed Pasha 2131353042

Sirajus Salekin 2132275642

Mottasim Billah Sadi 2132481642

Improvements:

During the presentation, a few improvements have been suggested and we have made those changes in our presentation slides and elaborated on them in this section.

1. The first correction was in our functional and non-functional requirements. Previously, we had given them on a short, point-by-point basis without any significant elaboration. We have changed them to be more descriptive and presented them in complete sentences instead.
2. One suggestion was for our Order Management Tab. All orders should have to be addressed quickly to avoid customer's delay. Therefore, we added a non-functional requirement that gives users a limit of 24 hours to respond to order requests before orders are automatically canceled and notified to the user.
3. Our presentation also did not have the use case scenarios and only had the diagrams. We have therefore added all the use case specifications that our project was designed to perform.
4. Our sequence diagrams also had a number of issues that we were suggested to fix. One of which was that the diagrams were too long and did not fit the slides enough. This also made the diagram very difficult to read. As a result, we split the long sequence diagrams into two halves for better clarity.
5. The sequence diagrams also had a problem with the arrow heads of the messages. The message arrows did not have arrow heads on some of them so we rectified them and added the missing ones.
6. Finally, in the sequence diagram of the Chat feature, we did not include any way for the user to be notified of the message being seen successfully. This lack of feedback was a big oversight and we have corrected this error with read receipts.

Introduction:



Social media has proved to be revolutionary for connecting people across the world. It opened up new realms of possibilities in collaboration among like-minded people with the advent of new platforms designed for specialized groups. While many platforms exist to connect individuals, in the business domain there is yet to be a service to link business enterprises that can streamline the process of finding potential partners and expedite business activities between them.

BiZcon is a B2B (Business-to-business) social media platform that will enable firms and businesses around the world to connect and conduct all kinds of business with one another. Most online platforms available today are not well equipped with features that facilitate businesses, especially startups, to discover new potential partners and build valuable connections. Our platform will be catered towards businesses looking to expand their list of links and help streamline the process of finding and establishing partnerships while providing them a user-friendly environment to collaborate on.

Vision Statement:

To be the world's premier platform that empowers business professionals to connect, collaborate, and thrive in a dynamic global marketplace, fostering innovation, growth, and success through meaningful and lasting professional relationships.

Functional Requirement

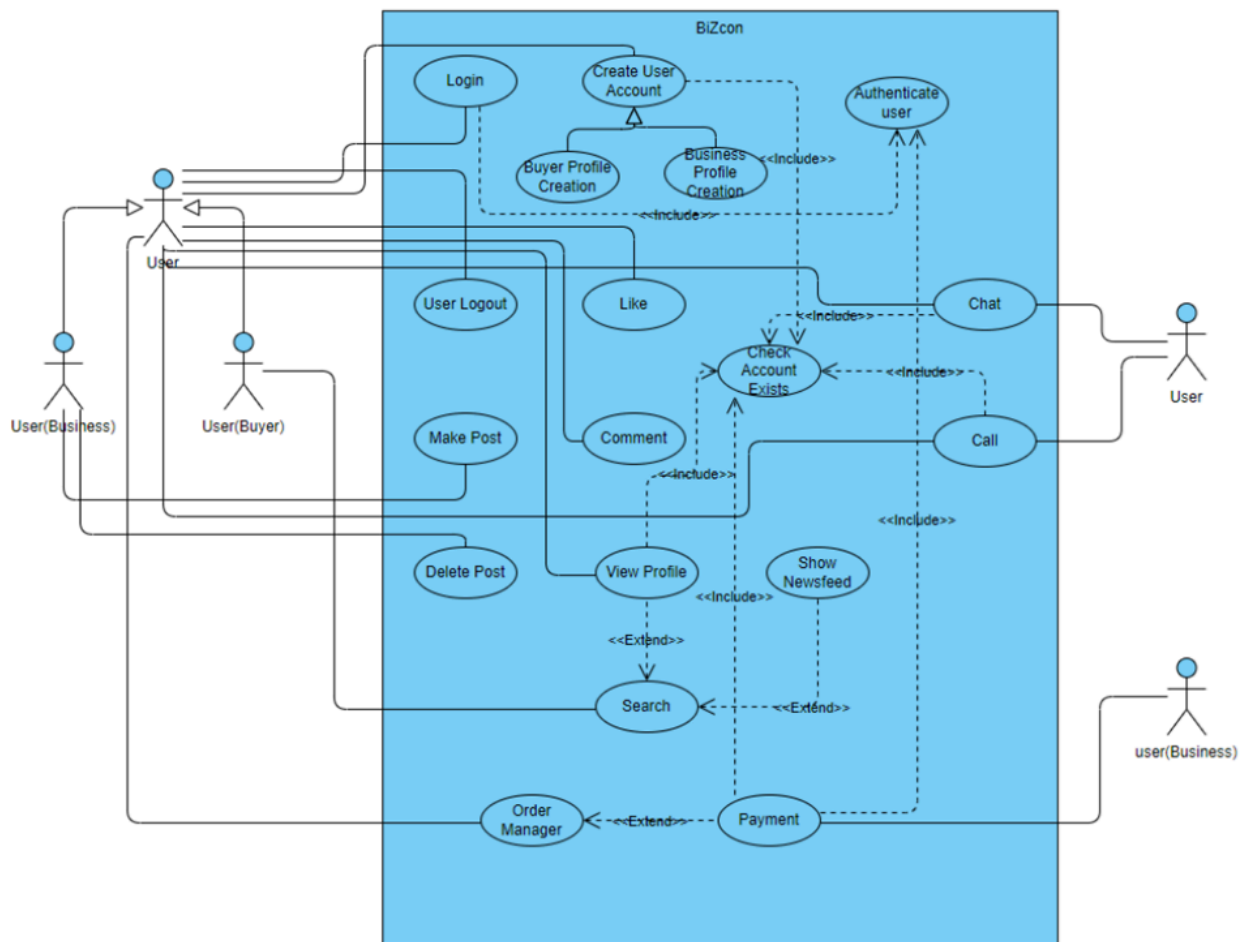
- Users have a profile page with their posts, descriptions, followers, following and chats that can be changed.
- Profiles can be verified and authenticated using OTP sent via email.
- News feed that shows all posts and comments by accounts followed by the user.
- Chat and call options available for users to communicate with each other.
- Order management tab that shows the list of orders received by a seller, user can confirm or reject orders and manage transactions and payments.
- Transaction Details and logs of texts, calls and news-feed activity with a notification system to alert users of changes and updates.
- Payment System with secured transactions for buyers to make purchases.
- Creating posts, sharing and commenting on posts which will have interactive features like direct order confirmations.
- Partnership Tab with search, collaboration options and suggestions based on past partnerships.

Non-Functional Requirement

- Synchronized System between partners for up-to-date and coherent information across all users.
- Responsive And Secured Payment Portals with Feedback, authentication and notifications through email and SMS.
- Real-time texts and stable call rooms
- Consensual modification of partnership details/documents/transactions and notifications of edits to all involved parties.
- Orders in the order management tab should be responded to within a time limit of 24 hours before being automatically rejected.
- Easy to navigate interface for quick usage to avoid needless waste of time for busy users.
- Maintenance Period Of 30 Minutes During Late Night, after 3 am when traffic is lowest.
- 2-tier authentication for login, signup and transactions.
- Profiles and posts support multimedia images, videos, etc. for promoting their business.
- Promotional videos, services, products, and items sellers offer in the profile.
- Hashtags on posts to enable ease of searching posts, other profiles and be featured on news feeds of relevant users.

Fix- Functional and non-functional requirements more descriptive and non-functional requirements added for orders to be responded to within 24 hours

Use Case Diagram:



Use Cases:

Fix- Use Case Specifications added

Use Case Name: User login

Actor: User

Scenario: 1. Input user Id and password

2. Authentication of login details

3. Save Id and password

4. Remember details and autofill

Exception: 1. Wrong login details

2. Connection lost

Precondition: 1. Page URL

Post Condition: 1. Successful login - login and move to homepage, change status to online

2. Unsuccessful login - error message

3. Connection lost - remain in same page

Use Case Name: Create User account

Actor: User

Scenario: 1. Input user Id, password, confirm password
2. Select type of account - business profile/buyer profile
3. Check id and password unique or not
4. Add user to database

Exception: 1. Duplicate login details
2. Connection lost

Precondition: 1. Page URL

Post Condition: 1. Successful creation and business profile selected - login and move to business profile creation
2. Successful creation and buyer profile selected - login and move to buyer profile creation
3. Unsuccessful creation/duplicate user found- error message, user not added to database
4. Connection lost - remain in same page

Use Case Name: Business profile creation

Actor: User(Business Profile)

Scenario: 1. Add business name, description/bio, date of establishment, address, contact details
2. Add products and services available
3. Add profile picture
4. Select search keywords(to facilitate searching of business profiles)

Exception: 1. Unsupported Text or symbols
2. Image size or format issue
3. Connection lost

Precondition: 1. Page URL and account exists

Post Condition: 1. Successful- move to homepage
2. Unsuccessful- error message, page emptied and remain in same page
3. Connection lost - remain in same page

Use Case Name: Buyer profile creation

Actor: User(Buyer Profile)

Scenario: 1. Add buyer name, description/bio, date of birth, address, contact details

2. Add interested products and services

3. Add profile picture

Exception: 1. Unsupported Text or symbols

2. Image size or format issue

3. Connection lost

Precondition: 1. Page URL and account exists

Post Condition: 1. Successful- move to homepage

2. Unsuccessful- error message, page emptied and remain in same page

3. Connection lost - remain in same page

Use Case Name: User logout

Actor: User

Scenario: 1. Ask for confirmation of logout

2. Disconnect from server

3. Change status to offline

Exception: 1. Unsaved changes

2. Connection lost

Precondition: 1. Page URL

Post Condition: 1. Successful logout - change status to offline, move to login page

2. Prompt to logout canceled- stay in same page

3. Connection lost - stay in same page

Use Case Name: Make post

Actor: User(Business profile)

Scenario: 1. Text box to enter post details

2. Add related hashtags for further reach

3. Link to product and services list or exact product being posted about

4. Like counter set to 0

5. Comment section, initially empty

6. Post added to database

Exception: 1. Unsaved changes

2. Connection lost

Precondition: 1. Page URL

Post Condition: 1. Successful - move to profile page and show new post at top of timeline

2. Post canceled - move back to homepage

3. Connection lost - move back to homepage

Use Case Name: Comment

Actor: User

Scenario: 1. Text box to enter comment details

2. Comment added to database with the post in question

Exception: 1. Unsaved changes

2. Connection lost

Precondition: 1. Page URL and post exists

Post Condition: 1. Successful - refresh page and show post with comment added

2. Comment canceled - remain in page

3. Connection lost - remain in page

Use Case Name: Like post

Actor: User

Scenario: 1. Like button

2. Like counter beside like button in post incremented or decremented

Exception: 1. Connection lost

Precondition: 1. Page URL and post exists

Post Condition: 1. Liked - like counter increased by 1, like button changes color

2. Unliked - like counter decreased by 1, like button reverts to default color

3. Connection lost - remain in page

Use Case Name: Delete post

Actor: User

Scenario: 1. confirmation button for deletion

2. Post deleted from database

Exception: 1. Connection lost

Precondition: 1. Page URL and post exists

Post Condition: 1. Successful delete - post removed from database, move to homepage

2. Delete canceled - move to homepage

3. Connection lost - remain in page

Use Case Name: View profile

Actor: User

Scenario: 1. User profile selected and displayed

2. User timeline with all past posts displayed

3. option to display menu of products and services available

4. Make order from menu(buyer profile)

Exception: 1. Connection lost

Precondition: 1. Page URL and profile exists

Post Condition: 1. Successful - move to user profile page

2. Unsuccessful- show error message and move to homepage

3. Connection lost - move to homepage

Use Case Name: Search

Actor: User

Scenario: 1. Text box, enter keywords with hashtags or name of profile/products
2. List of posts and profiles filtered using hashtags and keywords is displayed
3. Can click to jump to selected post or profile

Exception: 1. Connection lost
2. No search results

Precondition: 1. PageURL

Post Condition: 1. Successful - list of profiles and posts displayed, move to selected page
2. Unsuccessful- show error message and empty list
3. Connection lost - move to homepage

Use Case Name: Chat

Actor: User

Scenario: 1. Text box, enter message, emojis
2. Send images/videos
3. Receive messages simultaneously, immediately updated in chat box

Exception: 1. Connection lost

Precondition: 1. PageURL and receiver user account exists

Post Condition: 1. Successful message sent- chat box updated
2. Unsuccessful message sent l- show error message and chat box
Unchanged
3. Connection lost - error message showing network issue

Use Case Name: Call

Actor: User

Scenario: 1. In chat window, call option for real time
2. Send Call, receive call
3. Dial tone while attempting to connect
4. Receiver gets call notification

Exception: 1. Connection lost
2. Receiver offline

Precondition: 1. PageURL and receiver user account exists

Post Condition: 1. Successful call sent- Receiver Gets call ring
2. call not answered - show call declined message
3. Connection lost - error message showing network issue
4. Receiver not online - error message shown user not online

Use Case Name: Payment

Actor: User(Buyer)

Scenario: 1. Window showing amount to be paid and payment method
2. Enter business profile's wallet ID
3. Enter buyer password
4. Confirm password
5. Payment processed and amount deducted from buyer account and added to business account

Exception: 1. Connection lost
2. authentication failed
3. Not enough balance

Precondition: 1. PageURL and receiver user account exists

Post Condition: 1. Successful payment - confirmation message sent to buyer, notification sent to receiver, balance of both parties updated
2. Unsuccessful authentication - payment window closed and return to previous page
3. Unsuccessful payment due to balance issue - error message shown, payment window closed and return to previous page
4. Connection lost - error message showing network issue

Use Case Name: Order manager

Actor: User

Scenario: 1. Menu showing list of orders received(business profile), or orders made(buyer profile).
2. Order confirmation
3. Order details, description, amount
4. Option to pay for order(buyer profile)

Exception: 1. Connection lost

Precondition: 1. PageURL

Post Condition: 1. Order confirmed - confirmation message sender to buyer
2. Order list empty - show message that list is empty
3. Connection lost - error message showing network issue
4. Order payment - sent to payment window

Use Case Name: Show newsfeed

Actor: User(buyer profile)

Scenario: 1. Page showing posts and profiles of relevant users
2. Can comment, like posts and search posts

Exception: 1. Connection lost

Precondition: 1. PageURL

Post Condition: 1. Successful retrieval of content - displays suggested posts and profiles
2. Connection lost - error message showing network issue

Use Case Name: Authenticate User

Actor: User

Scenario: 1. User credentials verified with database
2. If match, gives permission
3. If not does match, permission not given

Exception: 1. Connection lost

Precondition: 1. PageURL

Post Condition: 1. Credentials correct - confirmation message displayed and return to previous page
2. Credentials incorrect - show error message and return to previous page
3. Connection lost - error message showing network issue

Use Case Name: Check Account Exists

Actor: User

Scenario: 1. Account searched for in database
2. If found, result saved and returned
3. If not found, show error

Exception: 1. Connection lost

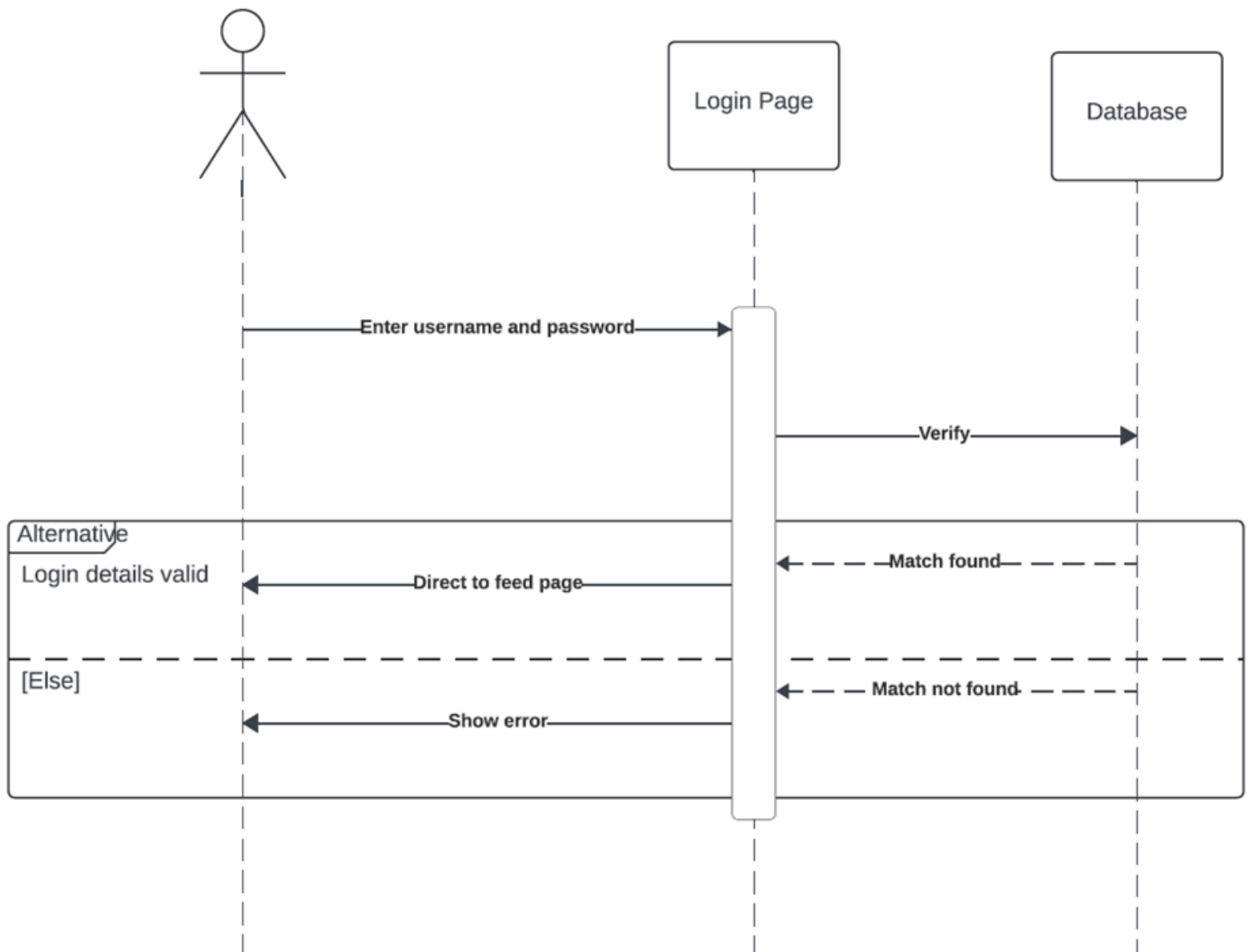
Precondition: 1. PageURL

Post Condition: 1. Profile found - confirmation message displayed and return to previous Page
2. Profile not found - show error message and return to previous page
3. Connection lost - error message showing network issue

Sequence Diagram:

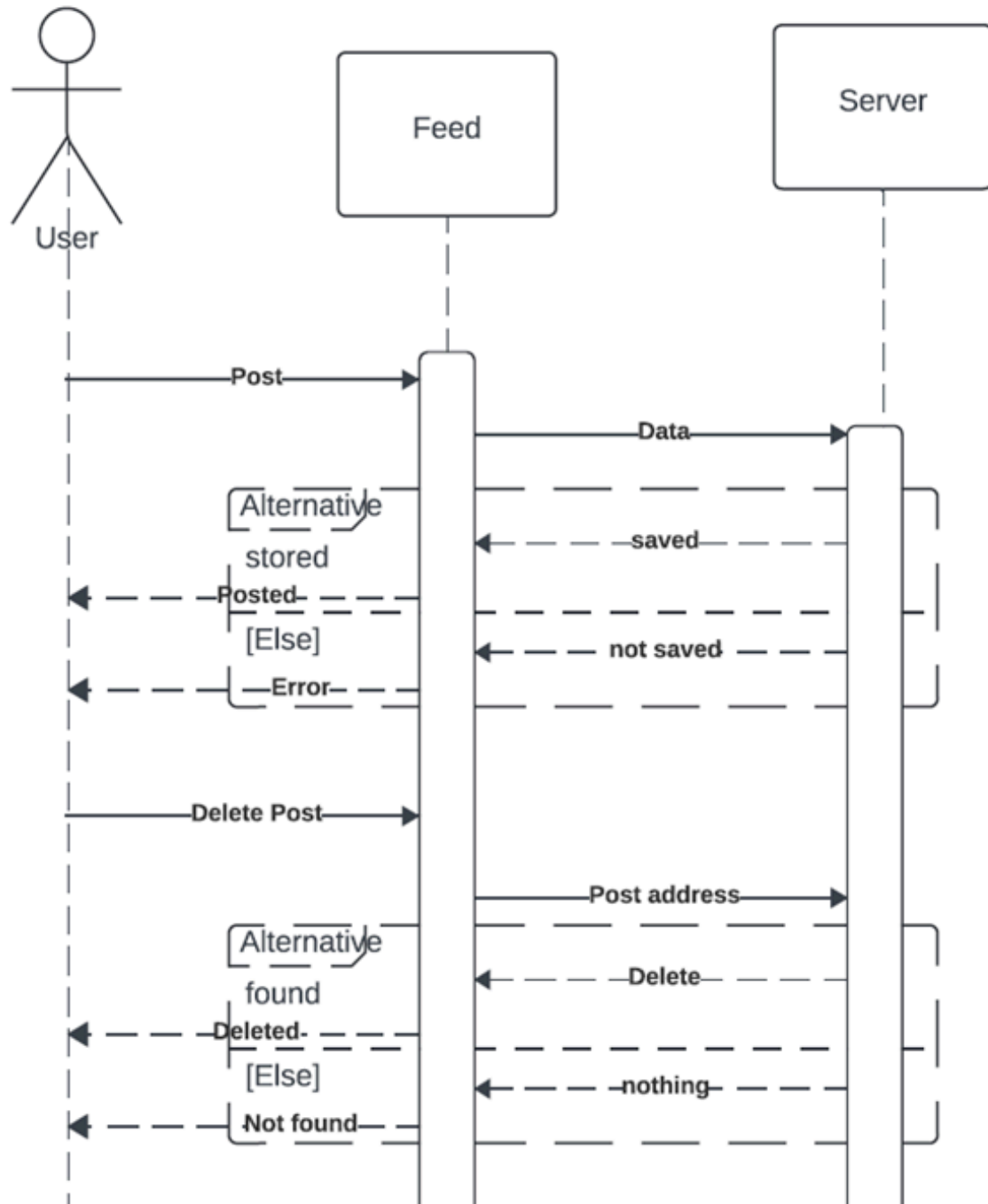
Fix- Arrowheads added

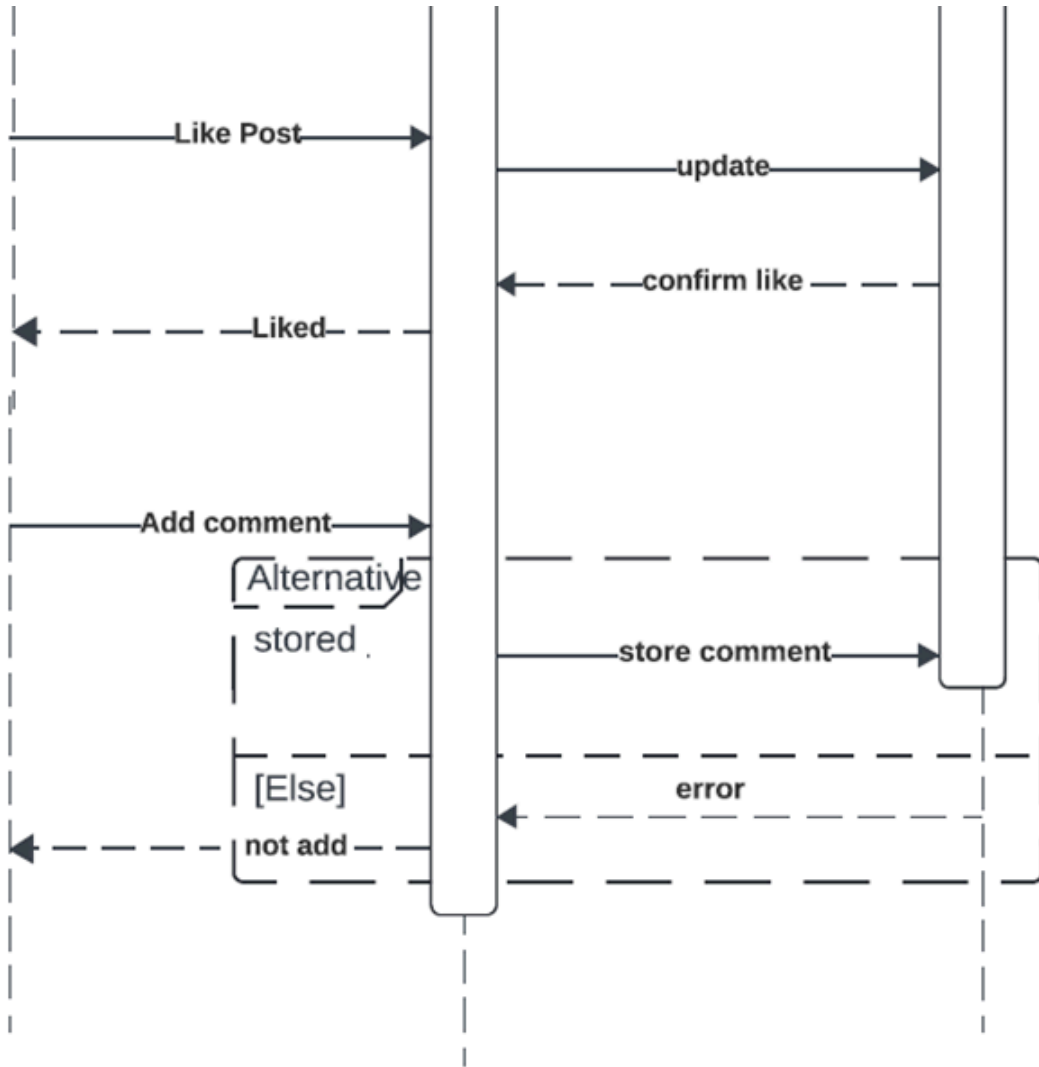
login:



Fix- Arrowheads added, halved and enlarged for more clarity

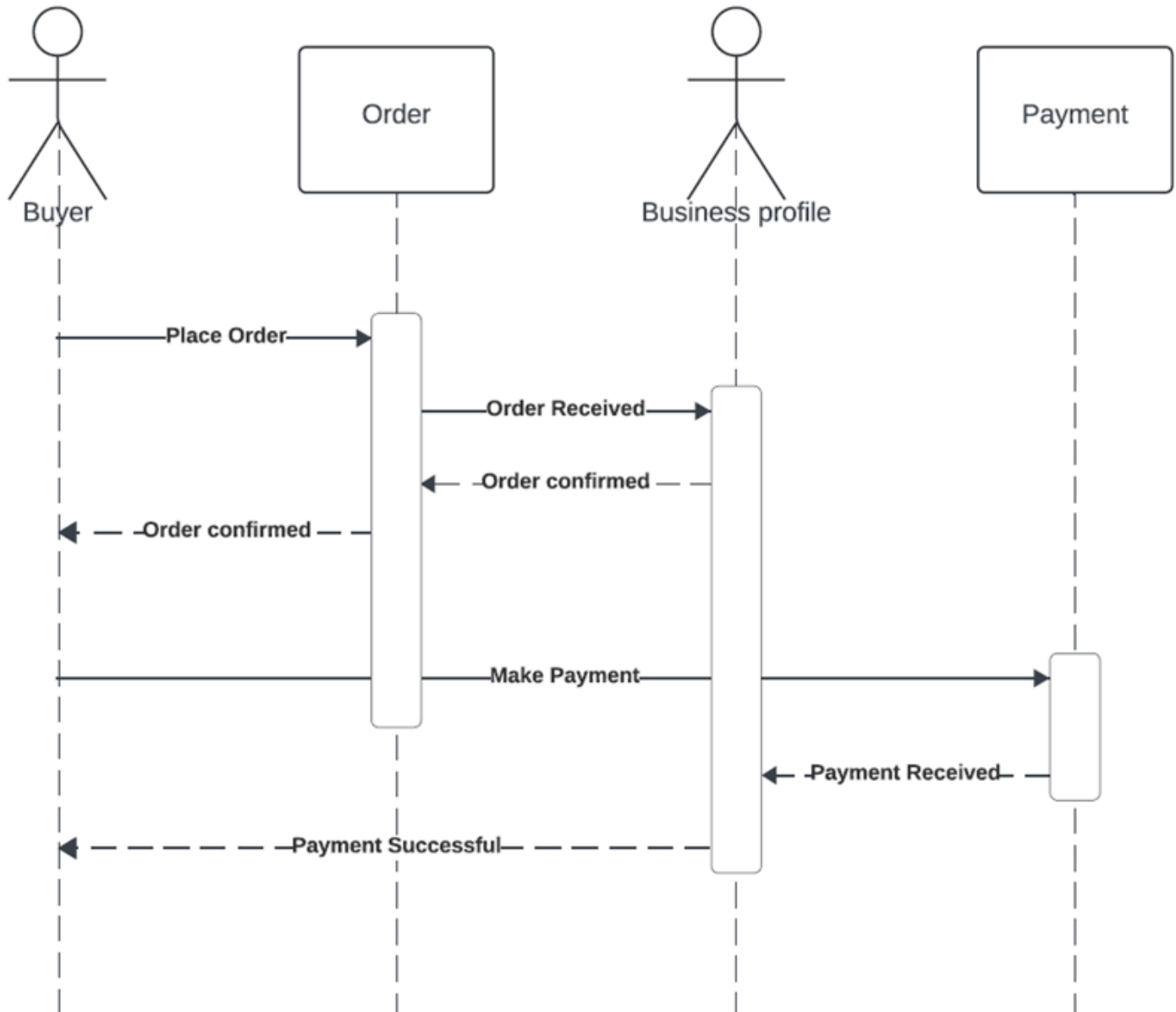
Post:





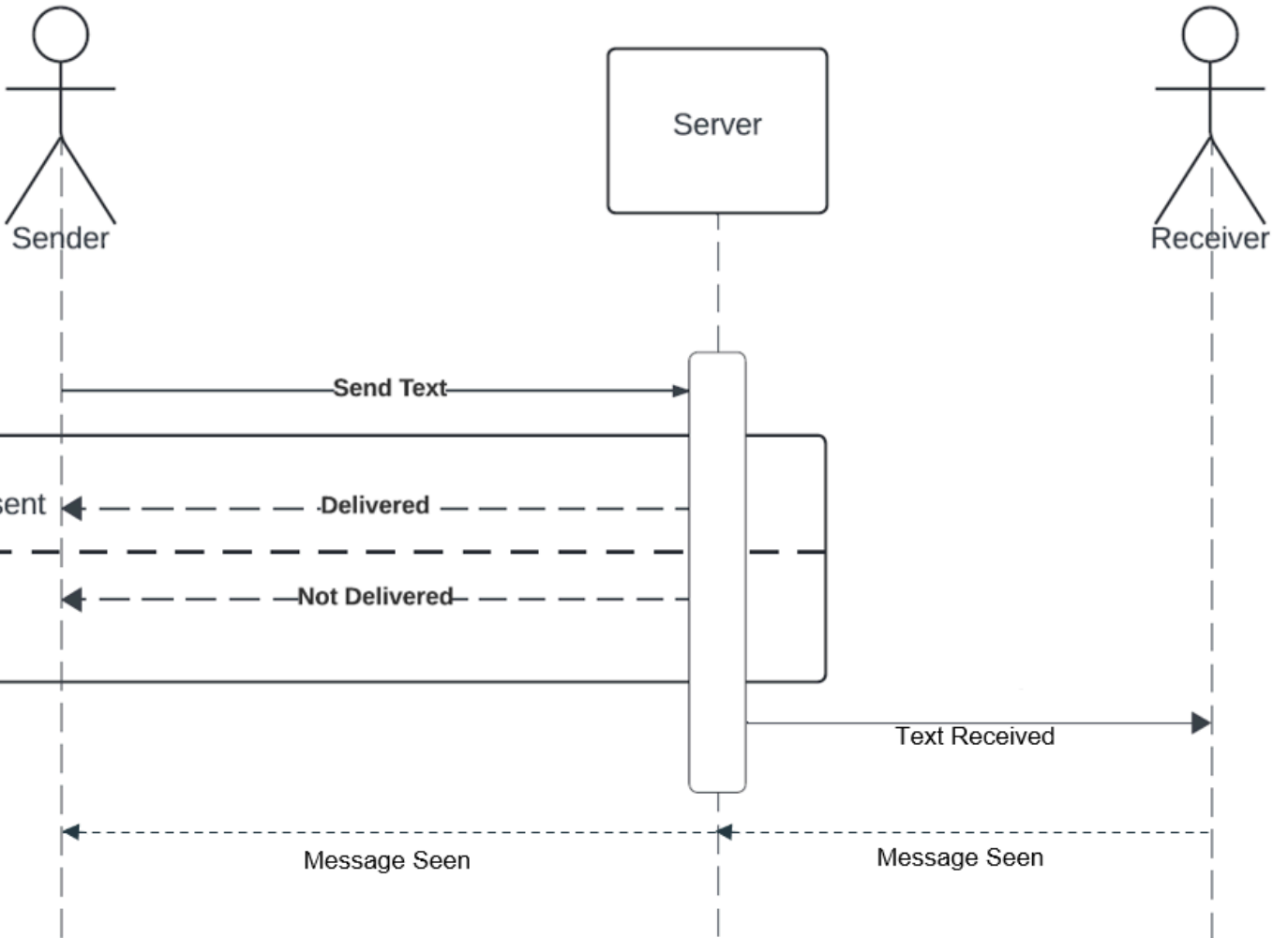
Fix- Arrowheads added

Order management



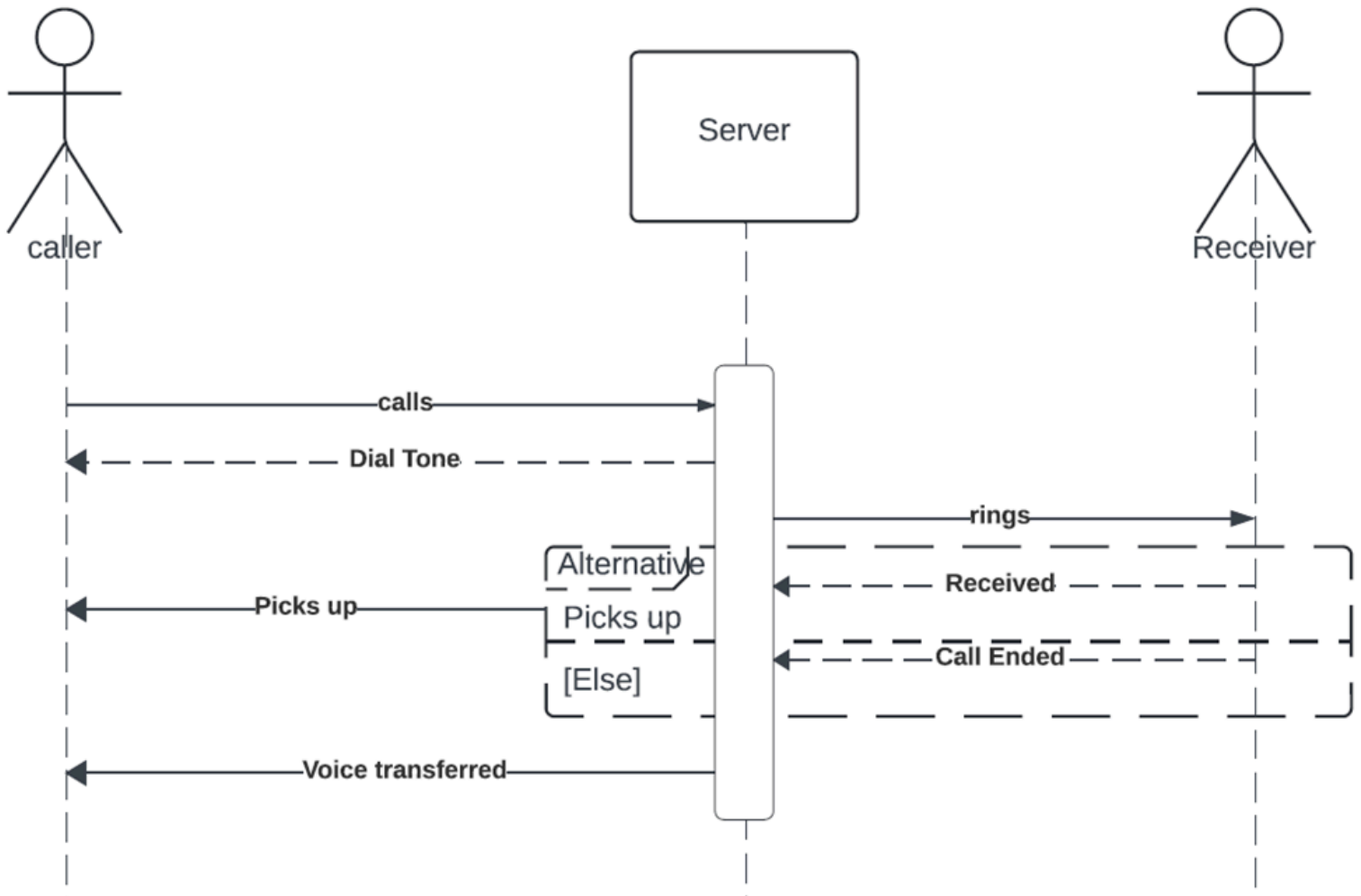
Fix- Arrowheads added, Message Seen feedback to sender added

Chat:

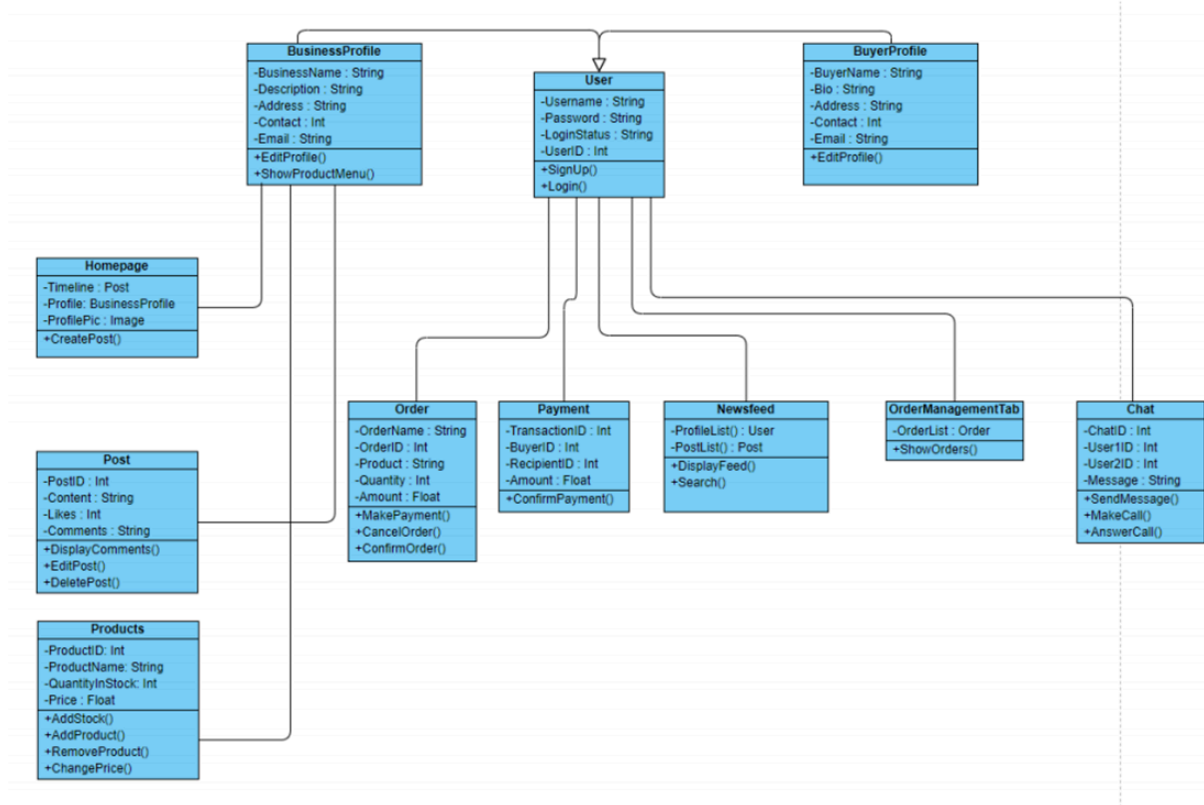


Fix- Arrowheads added

Calls:



Class Diagram:



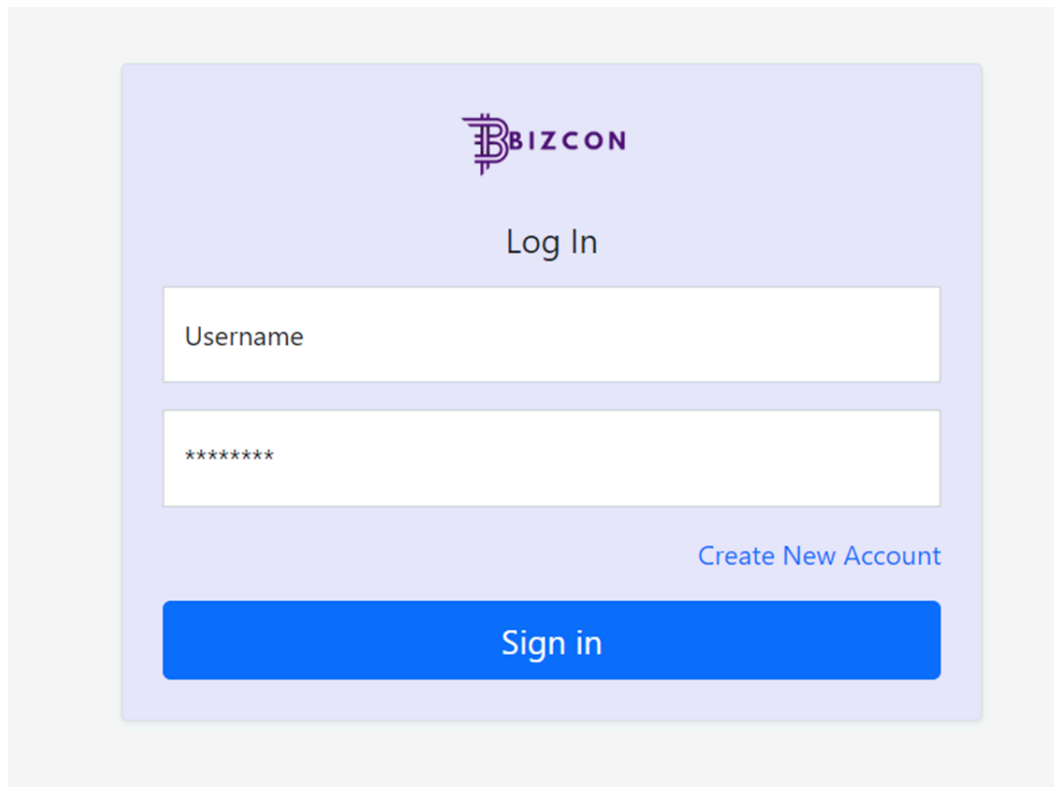
Software Implementation:

Our project was made using HTML, CSS and JavaScript for the frontend of the website and PHP for the backend to connect the website with the database. For our database, MySQL was employed to store all the information and data of our users and the website content. The use of JavaScript enabled us to create a website with seamless navigation and an interface that is minimalistic, yet full of features and clean to view, making it very user-friendly. All coding was done using Visual Studio Code.


Conclusion:

BiZcon is a website connecting businesses to a database storing user information and transaction details. Users are categorized as suppliers, producers, or retailers with customizable profile pages. Active users can be verified for authenticity. The interface features a timeline for posts, including requests, business proposals, and shared posts with hashtags for targeted visibility. Direct communication via chats and calls, including group chats and conference calls, is supported. Users can manage business activities, open orders, and track transactions, with all changes requiring consent and notifications sent for modifications. Payments are made securely through the app using various methods and confirmation codes.







Our Project at a glance




The image shows a login interface for BiZcon. At the top center is the BiZcon logo, which consists of a purple Bitcoin symbol followed by the text "BIZCON" in purple. Below the logo is the text "Log In" in black. There are two input fields: the first is labeled "Username" and the second is filled with asterisks "*****". To the right of the password field is a link that says "Create New Account" in blue. At the bottom is a large blue button with the text "Sign in" in white.





looking for business





infinity jamuna






Daraz BD

@Daz


You Can Follow Them



Abeed Pasha

@Abeed

Follow



Sirajus Salekin

@Salekin







Follow


Notifications

Daraz BD
@Daz started following you !
less than a minute ago

Sirajus Salekin
@Salekin started following you !
about 8 hours ago

looking for business






Abeed Pasha

@Abeed


You Can Follow Them



chal dal

@chaldal


Follow



infinity jamuna

@infinity


Follow










Sirajus Salekin


@Salekin


Follow





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