InfluHub

Final Year Project - I

FYP Team

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Date
26 Jan 2022

Fall 2021

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Acknowledgement

This documentation consumed a lot of work, research, and dedication. It was not possible without help of our teachers and supervisors. We would like to extend our sincere gratitude to them.

We are thankful to FAST National University of Computer and Emerging Sciences for their financial and logistical support and for providing necessary guidance concerning project.

We are also grateful to both our supervisors Ms. Sumaira Mustafa and Mr. Tahir Farooq for provision of expertise, and technical support. Without their superior knowledge and experience, the documentation would never have brought the quality outcomes, and thus their support has been essential.

We shall soon start the implementation of the project after the acceptance of documents.

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1: Document Version

Table 1- Version of Vision Document

Version	Date	Description	Authors
V1.0	05/11/2022		Huzaifa Shakeel Muhammad Abdullah Zulquairnain
V1.1	26/01/2022		Huzaifa Shakeel Muhammad Abdullah Zulquairnain

Table 1- Version of Vision Document

1.1: Introduction

1.1.1: Purpose

The purpose of this document is to highlight, analyze and to have a better understanding of the high-level requirements of the system. It focuses on the capabilities needed by the stakeholders, and the targeted users, and why these needs exist. This will help us in identifying and reducing the potential risks of the system.

1.1.2: Objectives

- Brand will be able to find the influencer according to their requirements on the basis of targeted audience, location and social media platform.

- Brand's will be able to launch the campaigns and get to know the budget according to the market trends by the offer received by the different influencers.

- Influencers will be able to get the appropriate PR packages according to their interests.

- Direct communication between brands and influencers.

- Brand will be able to view the statistical data of influencer's profile.

1.1.3: Scope

This Document applies to InfluHub, which is a business marketplace for brands and influencers. The system will help connect active influencers who have good enough reach on social media with the brands looking to promote their products on different social media platforms. The system will provide a platform for small brands don't have enough resources and creative influencers.

1.1.4: Abbreviation, definition

Following are the abbreviation and definitions used in the document:

- InfluHub: The marketplace for brands and influencers

- Brand: The businesses looking to promote their products

- Influencer: Social activists who have a good enough influence on the society

1.1.5: Intended Audience and Reading Suggestions

The intended audience for the following document are developers and the users of the application. The main audience are:

- **Development Team** will use this document to design and develop an android based application according to the customer requirements.

- **Users** will use this document to learn about the features of the system and get information about how to use the system.

- **Testers** will use this document before writing test cases because this will act as a contract between customer and contractor. Tester will validate user requirements.

The rest of the document contains the functional requirements, non-functional requirements, deployment info and dependencies.

1.2: Positioning:

Positioning tells us that how our application grows, and we can earn money through this application in the market, it defines business opportunity and defines the Problem statement that why we need to develop this application.

Details are given below:

1.2.1: Business Opportunity:

As the trend of marketing changes rapidly during last 10 years. Most of the brands are now focusing more on their social media marketing. People are more active towards social media and got influenced by the social media celebrities. Brands hires PR agencies to collaborate with the influencers for the promotion but issues like not enough resources, lack of communication, proper communication channel effect the process. There is now, more than ever, a demand for a platform which solves these problems. A platform which enables small brands to connect to the creative influencers.

1.2.2: Problem Statement

Table 1 Problem Statement

The problem of	Not having the small influencers and brands enough opportunities in the marketplace and the brands are unable to analyze the statistical data of the influencer's social accounts. The PR agencies are often biased or charge high commissions.
Affects	The rising or grown influencers and brands. Local businesses that want to promote their brands and need a proper communication channel with the public.
The impact of which is	Local brands not having a centralized platform for approaching the influencers. PR agencies work manually to hire influencers and not focusing on statistical data of influencer's social accounts so, didn't get the desired results.
A successful solution would be	A simple, intuitive, web application with a low learning curve that can be easily used by the elderly. The product would provide users with a centralized platform where the brands are connected with local influencers related to their interests, locality and desired outcomes.

1.2.3: Product Position Statement:

Table 2 Product Position Statement

For	New brands looking for the best results out of their promotion and influencers having good enough content and reach.
Who	are looking for a centralized platform where their product and content could be featured, and they could be hired right away on the basis of their categories.
InfluHub	is a software-based solution.
That	Provides a marketplace to the brands where they can promote their product and can discover influencer's profile with content according to their product.
Unlike	Platforms which don't offer the functionality of analyzing the social profiles and brand's satisfaction.
Our product	Let's brands to promote their products by finding the appropriate influencer according to the brand's targeted location and product details. And influencers to get more PR packages according to their category.

1.3: STAKEHOLDER AND USER DESCRIPTIONS

1.3.1: Market Demographics:

The target market segment includes the people who readily use social media on their mobile phones and laptops. The users are expected to be connected to internet in order to use the product. To gain the attention of consumers we have to use platforms where consumers can easily access our application.

1.3.2: Stakeholder Summary:

Table 3 Stakeholder Summary

Name	Description	Responsibilities
FAST-CFD Faculty	Have copyrights of our Final Year Project	Provide resources and help to develop this application.
Ms. Sumaira Mustafa	Supervisor of the project.	Help the development team to develop the project.
Mr. Tahir Farooq	Co-Supervisor of the project.	Help the development team to develop the project.
Huzaifa Shakeel	Leader of the development team.	Development of project.
Muhammad Abdullah	Member of the development team.	Development of project
Zulquairnain	Member of development team.	Development of project

1.3.3: User Summary

Table 4 User Summary

Name	Description	Responsibilities	Stakeholder
Brand	High priority end user of the system.	1. Launch campaigns to promote their products. 2. Approach the influencer the by using the search filter.	Self
Influencer	High priority end user of the system.	1. Send offer against the launched campaigns by the brands 2. Create order and deliver it after completion.	Self

1.3.4: User Environment

In order to use **InfluHub.com** system users are required to have internet availability

1.3.5: Stakeholder or User Needs

Table 5 Stakeholder pr User Needs

Need	Priority	Concerns	Current Solution	Solution
Secured access	High	Privacy of user data.	None	Management of user access with unique username and password. Also, implementation of md5.
Scalable	High	Security is a big concern with respect to data especially images of person can be stolen. Application can be used by kidnappers also.	None	Allow multiple users to access the application at the same time.
Easy-to-use	High	Users can easily use the application.	None.	Provide a user-friendly interface.
Flexible	Moderate to High	Each user may have a custom-made experience for itself.	None.	Users can switch between application modes according to their needs.
Responsive	Moderate	None	None	User upload response time will be kept minimum.

1.4: Product Overview

This field is used to give overall view related to product. The information gives in this section must be accurate precise, specific and relate to the project, which describes the perspective and features of the product.

1.4.1: Product Perspective

This product will be a web-based application and need an internet connection. To use this application user must registered first by using their active email or login through their social accounts (Facebook, Instagram, and Gmail). After that user can login to the system and access the functionality provided by the application.

1.4.2: Summary of Capabilities

Table 6 Summary of Capabilities

Customer Benefit	Supporting Features
Easy access to the system	Capture image, Face recognition and generate alerts
Secured access	Search by date, gender, and region.
Scalable	The application is supported on almost all the operating systems.

1.5: Dependencies and Constraints

This section is defining the dependencies and constrains of the InfluHub. Below is the detailed description.

1.5.1 Dependencies

The default language of this application is English, and it uses keypad to write anything. This application depends on phone number verification by using email service and on network. Network on the user's phone will be available everywhere a user may go so that emergency messages may be speedily delivered.

1.5.2 Constraints

The constrains of our system are listed below:

1.5.2.1 Security

The image of user is encrypted so that no one steals the data and provides privacy to users by two-way authentication, first with phone number verification and the second one with login.

1.5.2.2 Usability

The user interface of InfluHub will be easy to use. A lay man who knows how to use the internet can easily interact with the system. The bounce will be minimum so the user can easily move backward and forward.

1.5.2.3 Responsiveness

The response time of the system will be maximum 25 seconds. The system will load any of the page and in 20 to 25 seconds.

1.5.2.4 Maintainability

The system should be developed in such a way that it is extensible. It should be easy to incorporate new features requirements or accommodate a change in the existing requirements.

1.6: Functional Requirements

1) Portals for both brand and Influencers.
2) Influencers and brands should be able to login into their social handler.
3) The influencer's portal should display the statical data of their social media handlers.
4) The social media handlers include Facebook, Instagram and YouTube.
5) The data from handlers include follower count, engagement rate, reach, average comments, avg likes.
6) Statical data should be plotted in form of graphs and charts in brand and influencer portals.
7) The influencer can bid the campaign.
8) The influencers will be able to visit brand's profile after the bid is accepted.
9) Influencers and brands both will be able to flag each other's profiles.
10) Brand will be able to view statistical data of influencers.
11) The influencer will be able to accept/reject the offer.
12) The brand will be able to create order.

13) On acceptance of order by influencer the payment will be deducted from band's wallet.
14) After the order is accepted by influencer new portal of order is created.
15) The influencer will deliver the order by submitting the link of post that was committed in order.
16) The brand will be able to accept or reject the order. On acceptance the order will be completed.
17) The payment will be delivered to influencer on completion of order.
18) After the acceptance of order, both influencers and brands will give reviews to each other. The review includes following.
   a) Star Rating
   b) Comment
19) The order includes the following details of post.
   I. Post type
      a. Story
      b. News Feed
   II. Time options (select one)
      a. A specific date and time
      b. A deadline before which the influencer must post.
   III. Budget
   IV. Social media platform.
      a. Facebook
      b. Instagram
      c. You Tube
20) There will be a chat option, but the chat will begin only in following 2 conditions
   I. The brand has reached the influencer directly.
   II. The bid of influencer is responded by the brand.
21) The chat should include file sharing option.
22) The brand will be able to
   I. Search influencer by tag
   II. Approach a specific influencer directly.
   III. Start a campaign.

1.7: Other Non-Functional Requirements

1.7.1 Availability:

The system should be always available. It should be ensured that there should be minimum or no downtime to ensure better user experience. The system should be reliable. It should yield correct results if a user performs searches for a person.

1.7.2. Reliability:

Our application will provide regular information and notifications about posts of missing person.

1.7.3. Testability:

The application should be testable. A separate test environment should be set up where testers and the Quality Assurance engineers can test the application for bugs and/or incomplete or missed requirements.

1.7.4. Maintainability:

The system should be maintainable. The system should be able to adapt new features. Previous functionality should not be disturbed in case of adding new functionality.

1.7.5 Accessibility:

The system should be accessible to the brands and influencers only at any location.
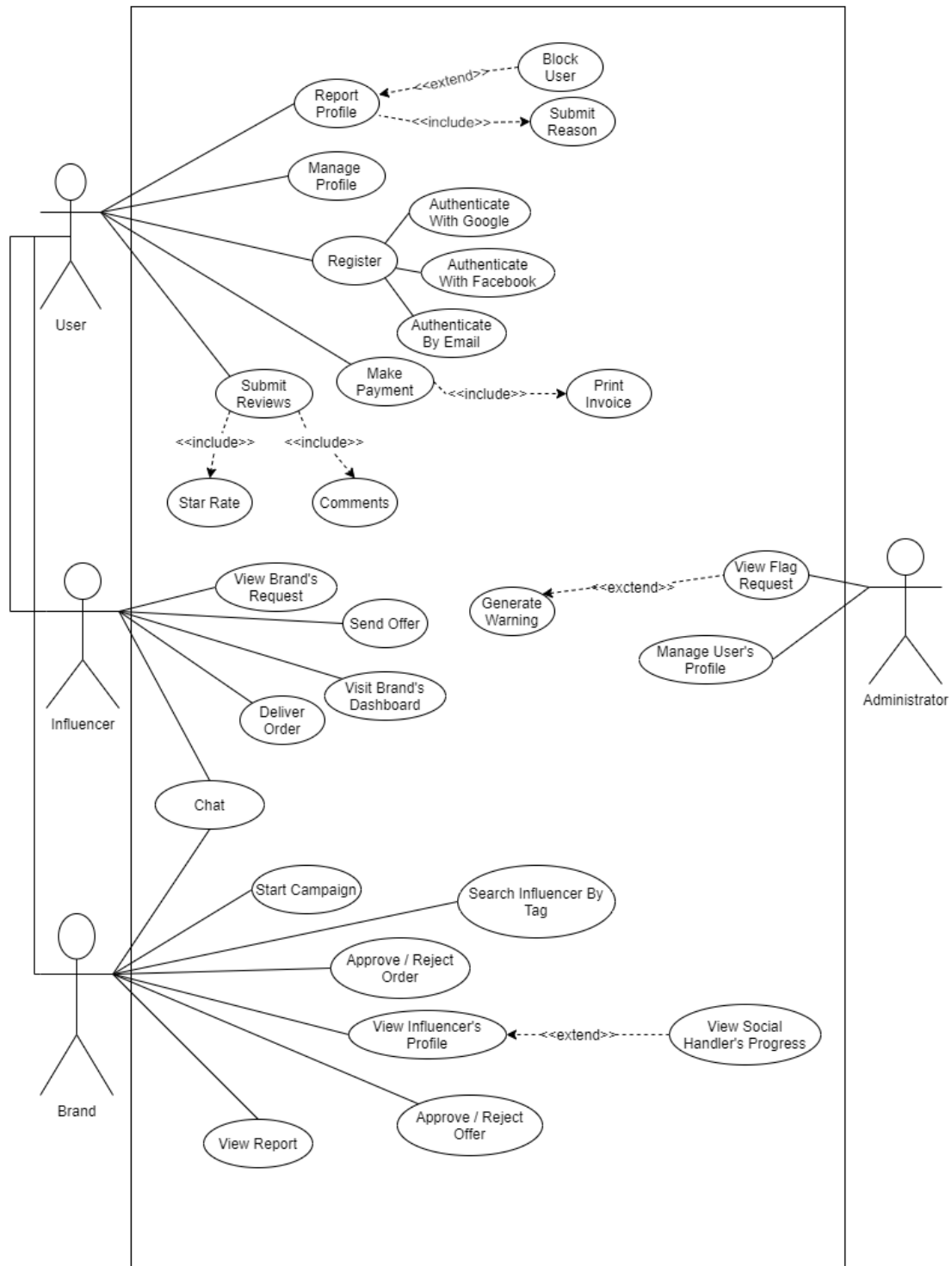
3. Use Case

3.1: System Use Case Diagram

Figure 1 Use Case

3.2: High level Use Cases

3.2.1: Register

Use case ID	UC-02
Use case name	Register
Actor	Influencer, Brand
Type	Primary
Description	User will enter their details into the system. System validate customer's details and saves into the database.

3.2.2: Manage Profile

Use case ID	UC-02
Use case name	Manage Profile
Actor	Influencer, Brand
Type	Primary
Description	Users can view and change their profile details.

3.2.3: Search Influencer By Tag

Use case ID	UC-03
Use case name	Search by tag
Actor	Brand
Type	Primary
Description	The brand will accept the order after checking its requirements.

3.2.4: Start Campaign

Use case ID	UC-04
Use case name	Start Campaign
Actor	Brand
Type	Primary
Description	Brands may specify their specifications about the product and promotion like category of PR, preferred social handle, preferred audience location, influencer gender and estimated budget.

3.2.5: Send Offer

Use case ID	UC-05
Use case name	Send offer
Actor	Influencer
Type	Primary
Description	Influencer will provide the details of the order like delivery time, budget, social media handlers on which the promotion post will be posted, post type and the offer will be sent to the brand.

3.2.6: Approve Offer

Use case ID	UC-06
Use case name	Approve offer
Actor	Brand
Type	Primary
Description	The brand will get the offers by the influencers. The brand can either chat with the influencer for the negotiation or it can directly accept the offer too.

3.2.7: Deliver Order

| Use case ID	UC-07
Use case name	Deliver order
Actor	Influencer
Type	Primary
Description	The order will be delivered by the influencers which include the link(s) of the posted promotion post.

3.2.8: Submit Review

Use case ID	UC-08
Use case name	Submit Review
Actor	Brand, Influencer
Type	Primary
Description	The brands and influencers will give review each other which includes star rating out five stars and comments about their experience with each-other after the completion of each order.

3.2.9: Live Chat

Use case ID	UC-08
Use case name	Live chat
Actor	Brand, Influencer
Type	Primary
Description	Brand and influencer can communicate to each other. The chat must be initiated by brand.

4: Iteration

The Iteration plan is given below:
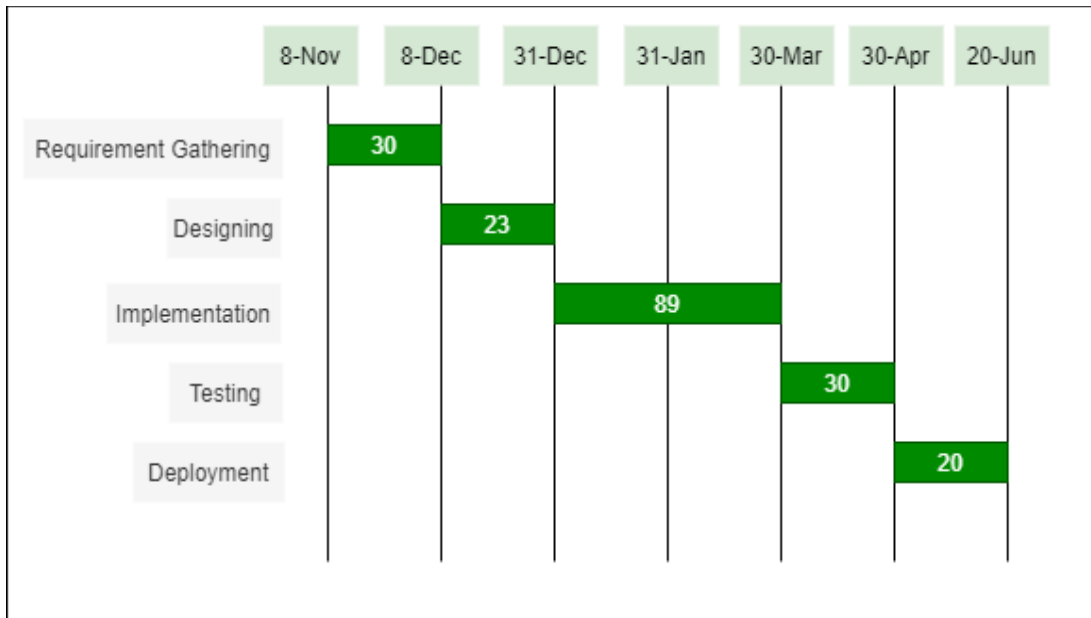
Figure 2 Iteration

4.1: Expanded Use Cases

The features of our system are given below. These are the major features which has been described below

4.1.1: Register

Use case name	Register
Actor	Influencer, Brand
Type	Primary
Description	User will enter their details into the system. System validate customer's details and saves into the database.
Pre-conditions	User needs to access the system through web browser. The user is not registered before.
Post-conditions	System creates a new account for the new user.
Normal flow	1. User provide their details. 2. System validate user's details. 3. System then save user details into the database. 4. System register new user. 5. System shows the message after saving the details successfully.

Alternate Scenario	2. If user details are invalid
	    i. Display the message of Invalid details.
	    ii. Return to 1.

4.1.2: Manage Profile

Use case name	Manage profile
Actor	Influencer, Brand
Type	Primary
Description	Users can view and change their profile details.
Pre-conditions	The user must be logged in.
Post-conditions	Profile of the users will be maintained.
Normal flow	1. User select manage profile option 2. System displays the profile of users 3. The user makes changes in profile. 4. The user submits the information. 5. System asks for confirmation for changes. 6. User confirm the changes.

Alternate Scenario	2. If user don't confirm the changes
	    iii. Display the message of "Changes not saved".
	    iv. Return to 2.

4.1.4: Start Campaign

Use case name	Start campaign
Actor	Brand
Type	Primary
Description	Brands provides the specifications about the champaign like category of PR, details of PR, preferred social handle, Influencer level and estimated budget.
Pre-conditions	Brand must login to start the campaign.
Post-conditions	Campaign data stored in database and will show to appropriate influencers.
Normal flow	1. Brand select the start campaign option. 2. Provide details of campaign. 3. Brand start the campaign.
Alternate Scenario	N/A

4.1.3: Search Influencer By Tag

Use case name	Search influencer by tag
Actor	Brand
Type	Primary
Description	Users can filter search result on the base of different filters like audience location, budget, reach, followers, gender and ratings.
Pre-conditions	The user must specify the product category.
Post-conditions	The user gets the filter search result.
Normal flow	1. User select the "Search by Tag" option. 2. The user chooses the values of tags 3. The user performs search 4. System presents the relevant filtered search result to the user.

Alternate Scenario	2. If any of the tag's value is not provided
	    i. The system considers the best value for the tag.
	    ii. Return to 3.

4.1.5: Send Offer

Use case name	Send offer
Actor	Influencer
Type	Primary
Description	Influencer will provide the details of the order and the offer will be sent to the brand.
Pre-conditions	The campaign for the offer must be launched by the brand.
Post-conditions	Offer will be sent to the brand.
Normal flow	1. Influencer provide the offer details. 2. Influencer select the send the offer option.
Alternate Scenario	N/A

4.1.6: Approve Offer

Use case name	Approve offer
Actor	Brand
Type	Primary
Description	The brand will get the offers by the influencers. The brand can either chat with the influencer for the negotiation or it can directly accept the offer too.
Pre-conditions	The offer must be sent by the brand.
Post-conditions	Influencer will receive the notification regarding the offer acceptance.
Normal flow	1. Brand view the received offers. 2. Brand accept the offer.

Alternate Scenario	2a. If the offer is accepted
	  i. A new active order will be stored in the database.
	  ii. The new order portal will be created between both parties.

4.1.7: Deliver Order

Use case name	Deliver Order
Actor	Influencer
Type	Primary
Description	The order will be delivered by the influencers which include the link(s) of the posted promotion post.
Pre-conditions	There must be an active order.
Post-conditions	Influencer will receive the notification regarding the offer acceptance or rejection.
Normal flow	1. Influencer select the "Deliver Your Order" option. 2. Influencer add the link of the promotion post along the delivery. 3. Influencer deliver the order.
Alternate Scenario	N/A

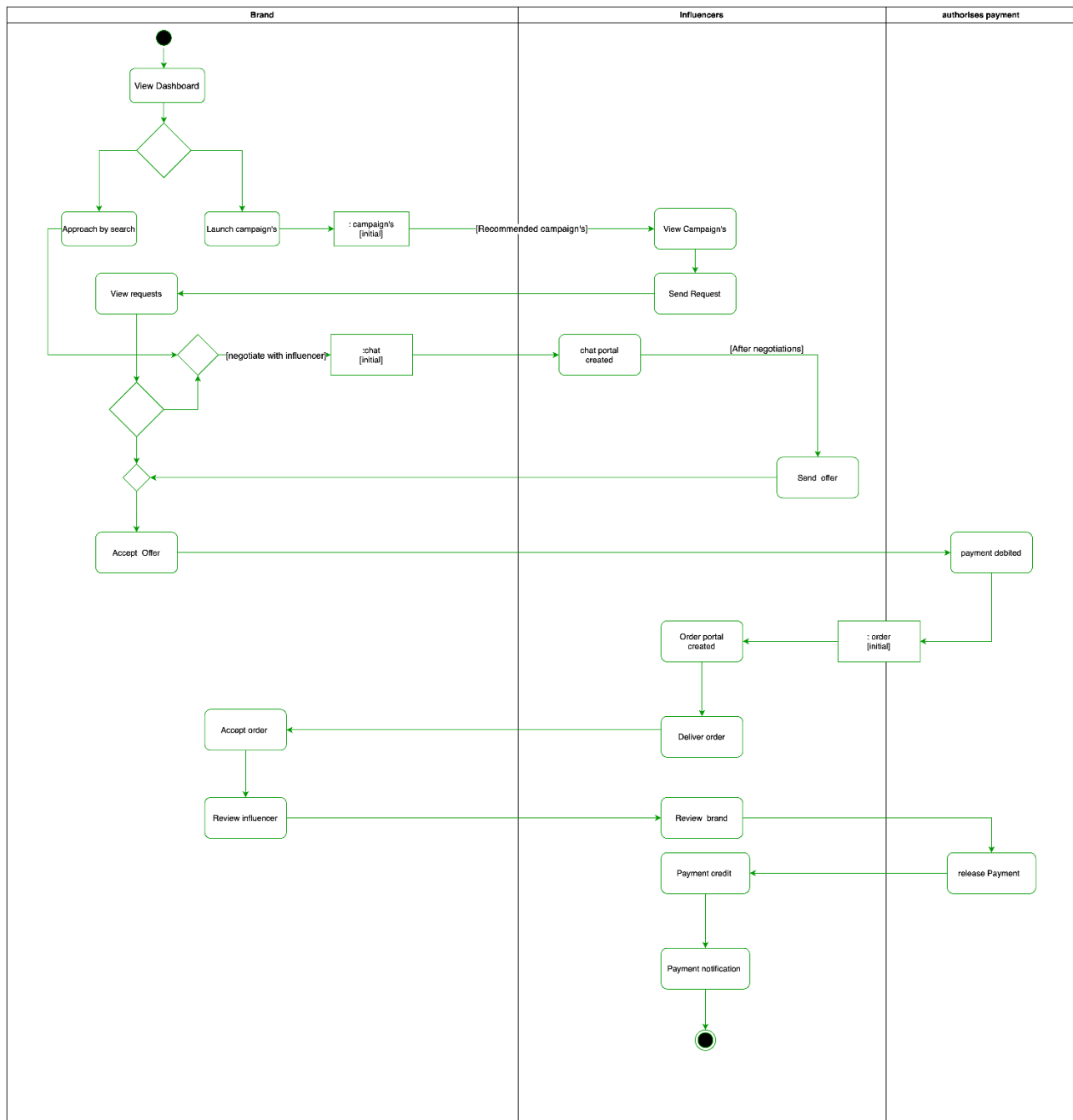# 4.2: Activity Diagram

4.2.1: Brands

Figure 3 Brand Activity Diagram
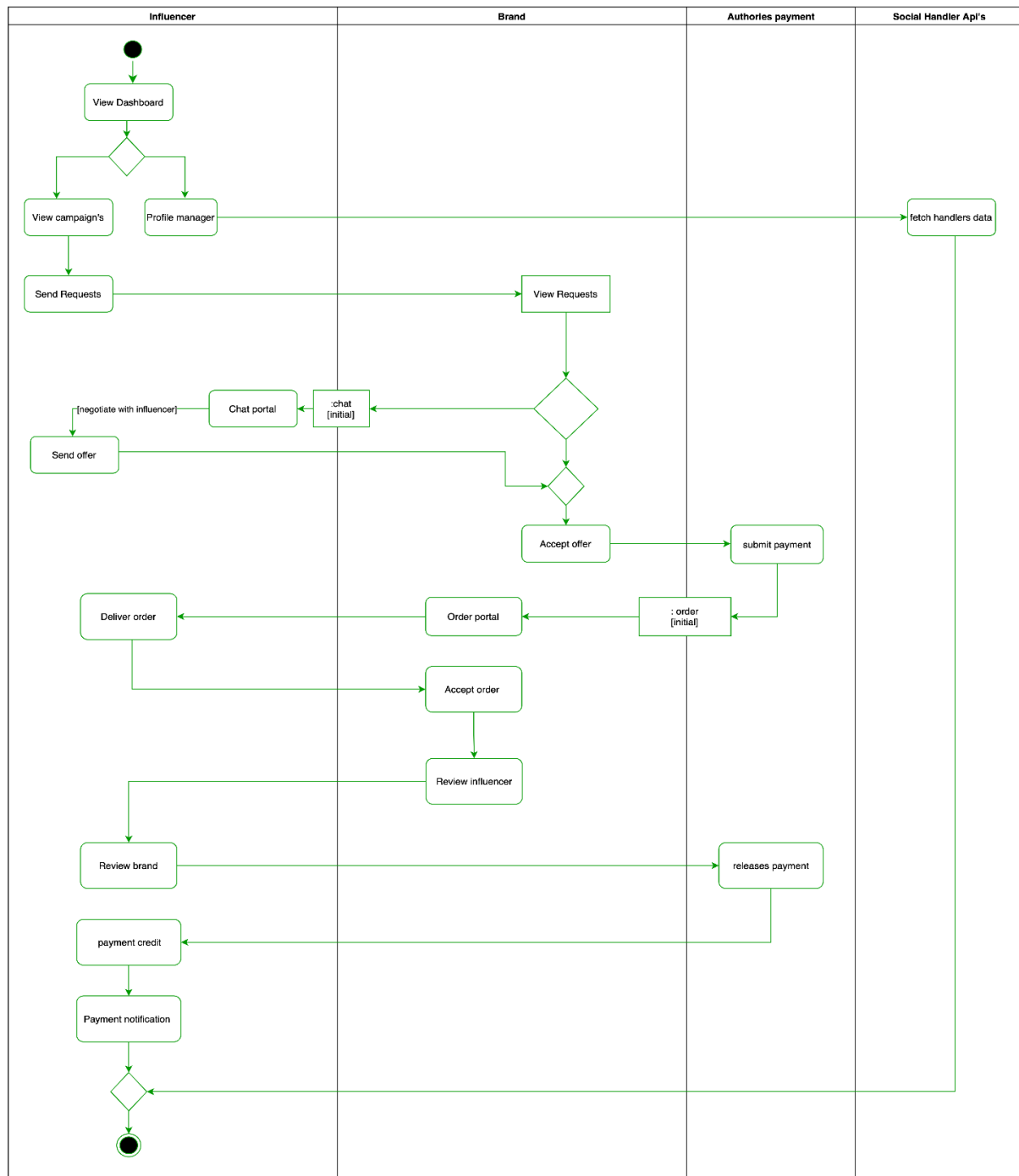
4.2.2: Influencer

Figure 4 Influencer Activity Diagram
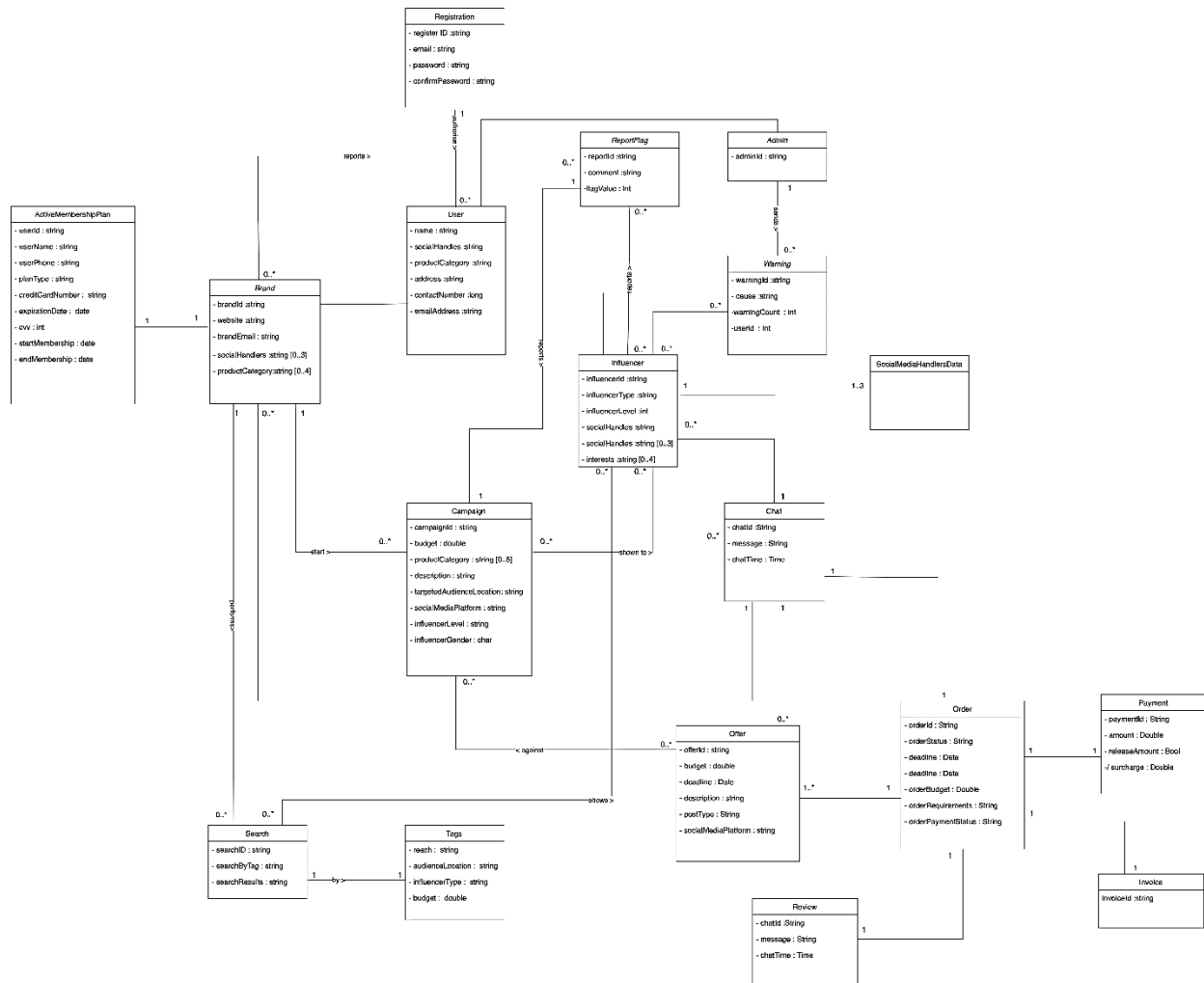
4.3: Domain Model

Figure 5 Domain Model

4.4: System Sequence Diagram
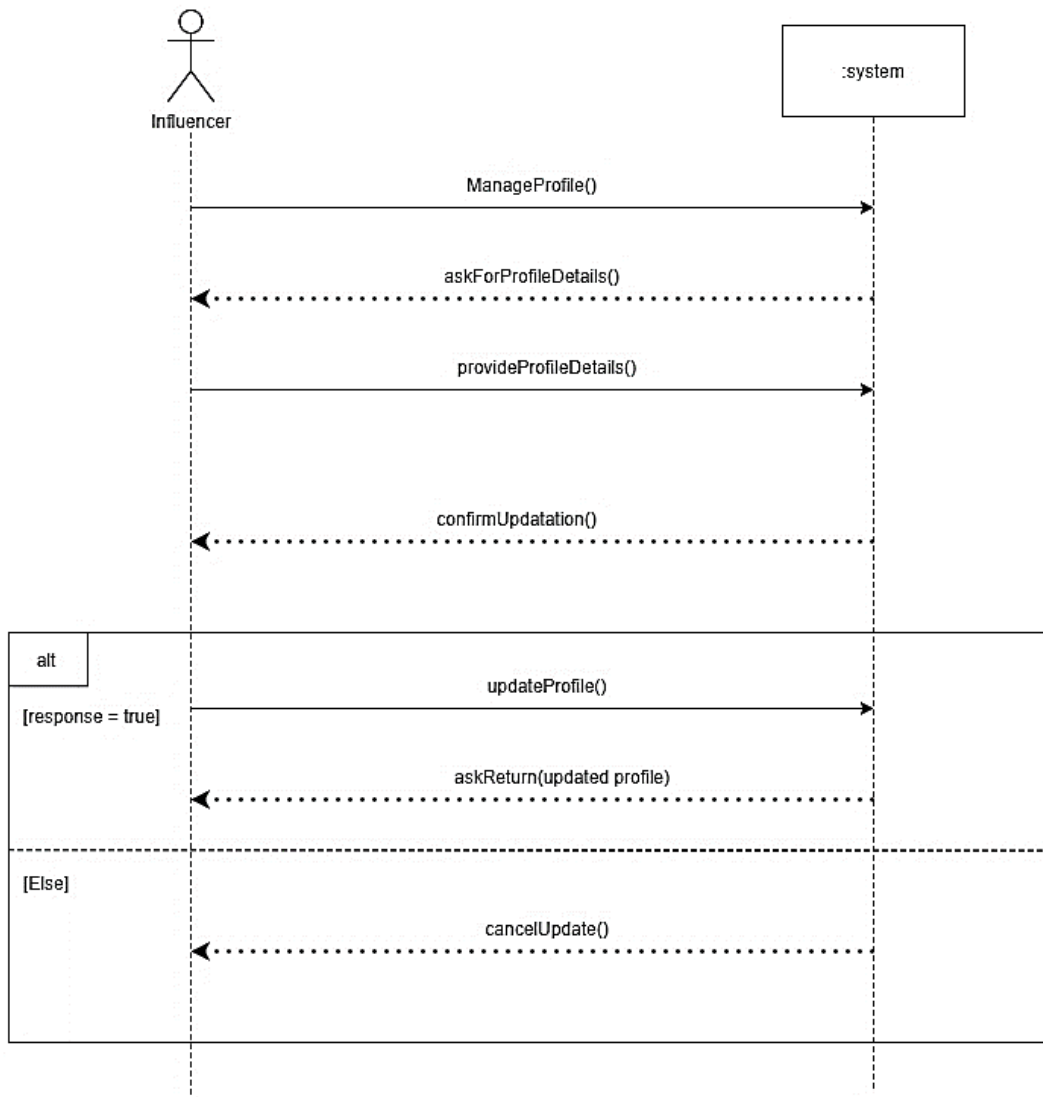
4.4.1 Manage Profile

Figure 6 Manage Profile
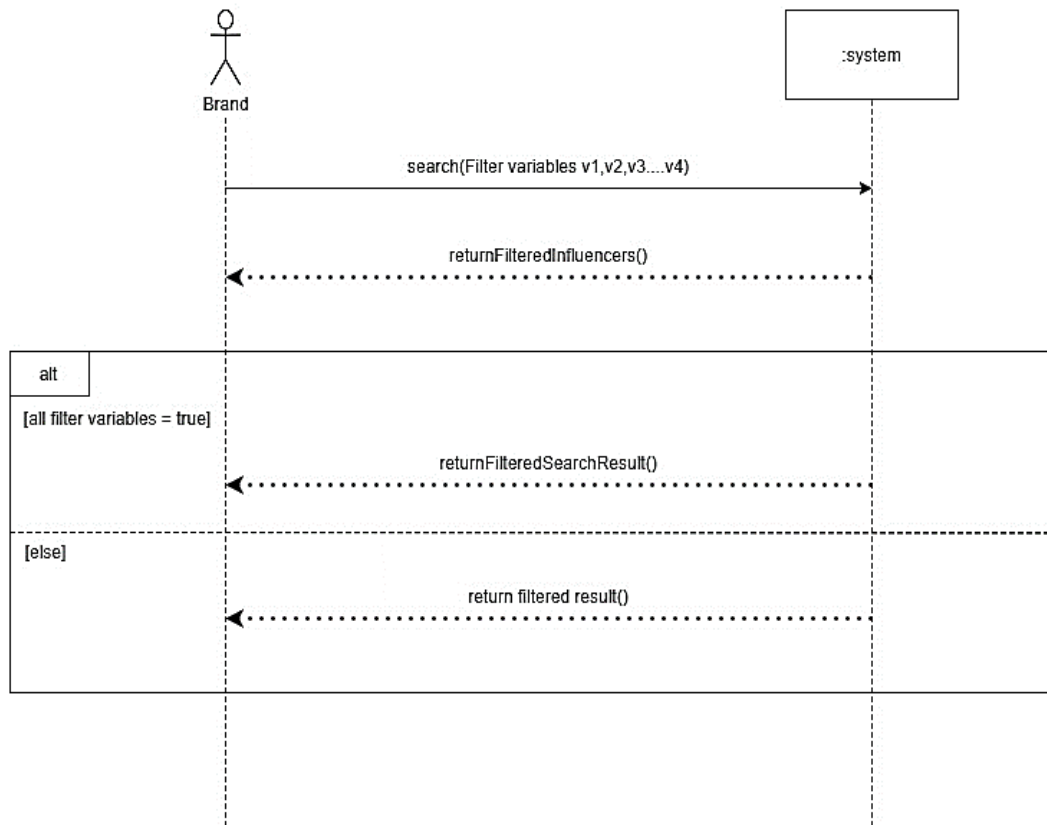
4.4.2 Search Influencer by Tag

Figure 7 Search Influencer by Tag
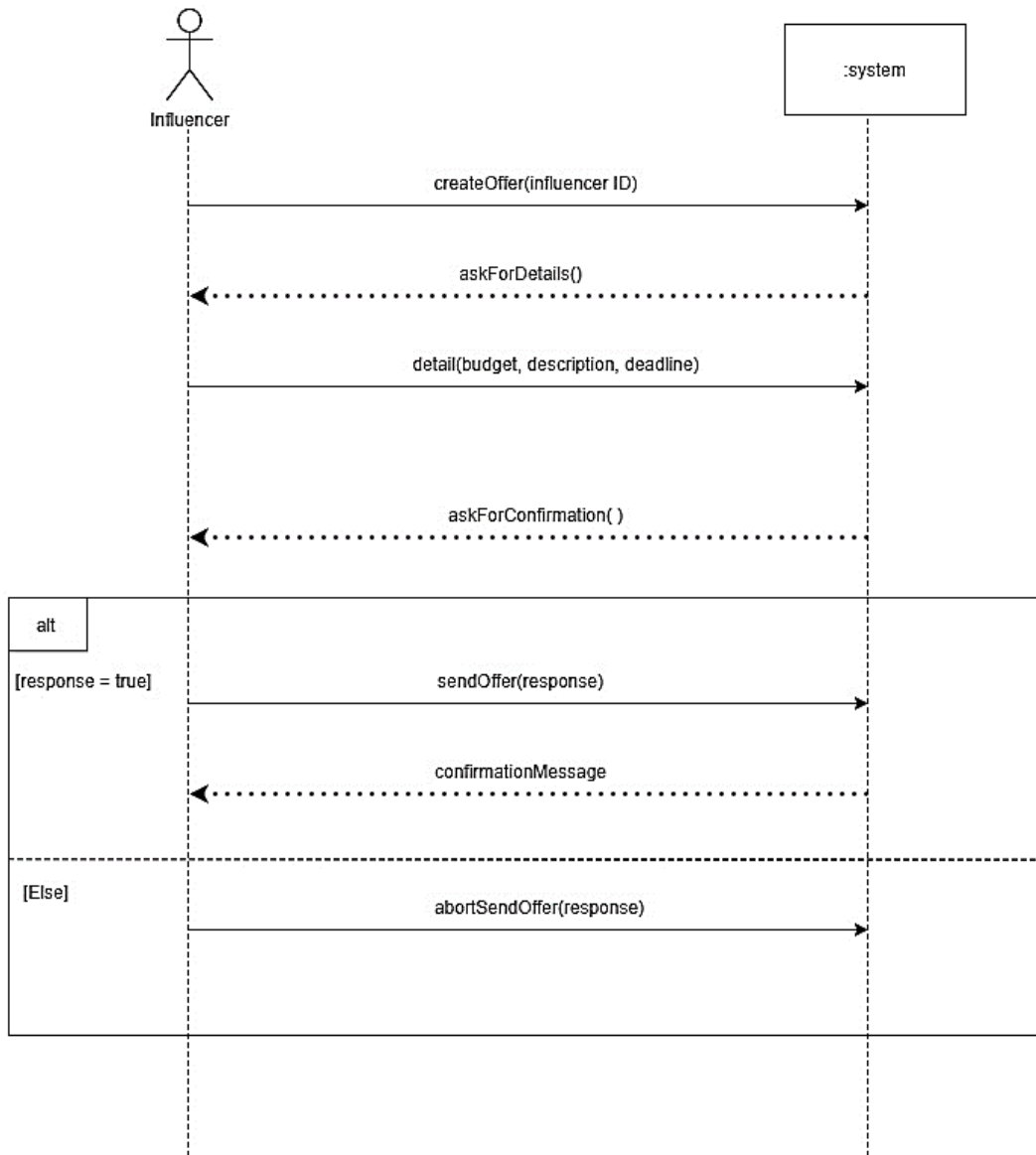
4.4.3 Create Offer

Figure 8 Create Offer
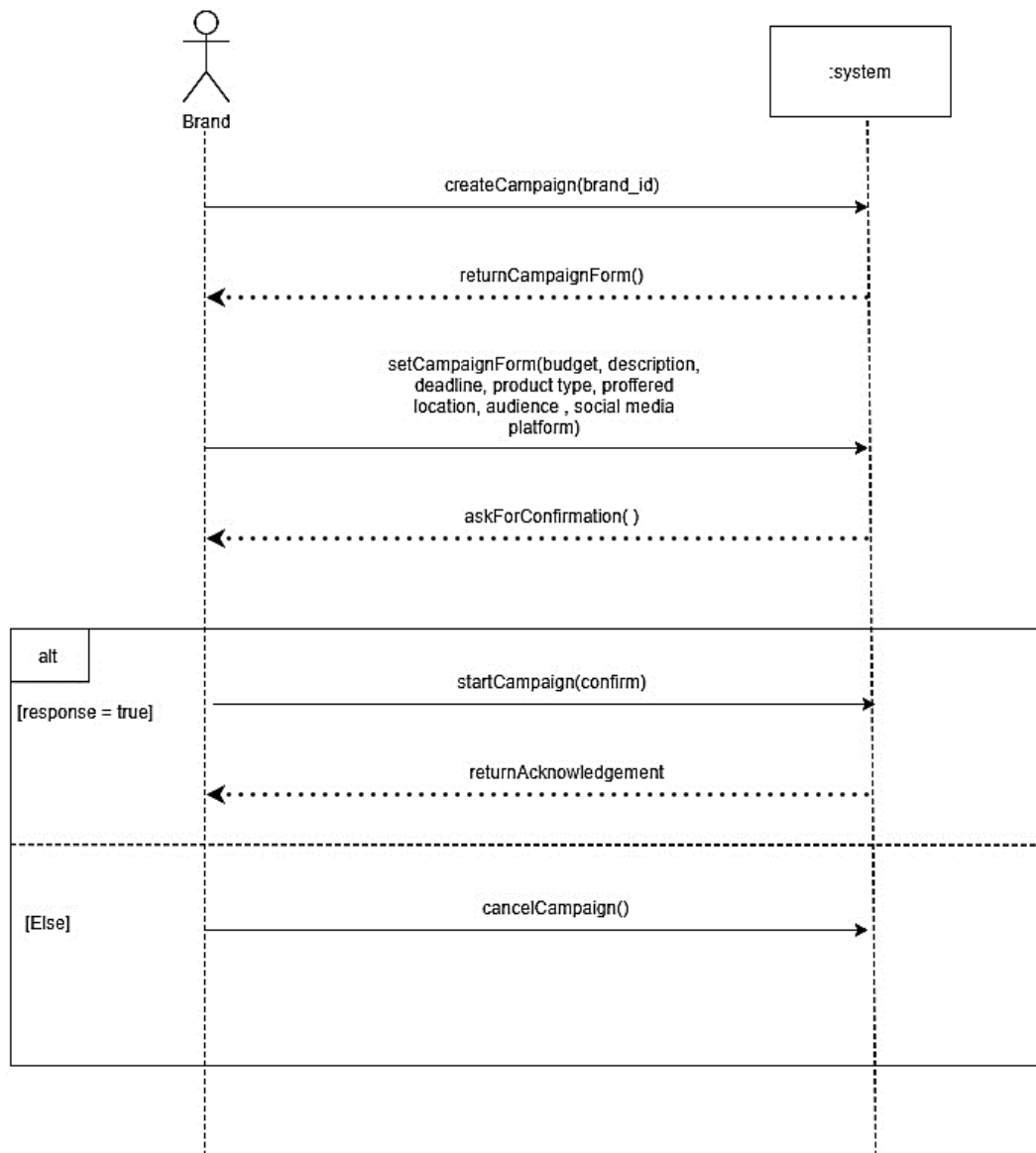
4.4.4 Create Campaign

Figure 9 Create Campaign
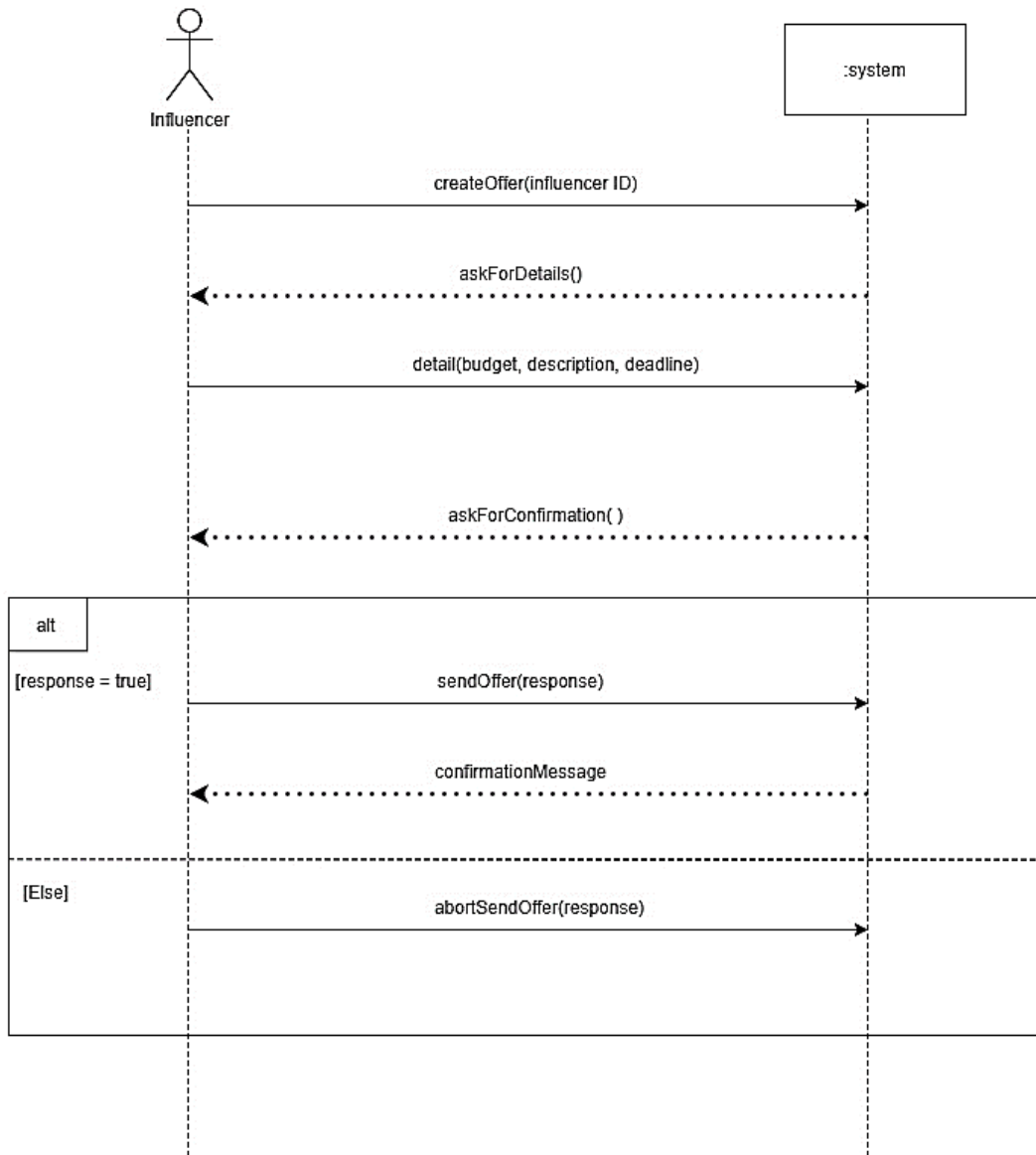
4.4.5 Create Offer

Figure 10 Create Offer

4.5: Operation Contracts

4.5.1: OC1:

Name	manageProfile()
Type	System
Responsibility	It is used to manage details of influencer's profile.
Cross Reference	Manage profile (UC-02)
Output	
Precondition	Influencer must be registered,
Post-condition	The provided details must be at influencer's profile

4.5.2: OC2:

Name	Search (V1,V2,V3,V4)
Type	System
Responsibility	It allows the user to filter the result of search.
Cross Reference	Search influencer by tag (UC-03)
Output	Display the filtered result of search.
Precondition	User has entered search keywords to the system already
Post-condition	● Filter instance filter was created ● filter was associated with Search

4.5.3: OC3:

Name	createCampaign(brandID)
Type	System
Responsibility	It initiates a campaign to on which influencers can send offers.
Cross Reference	Start Campaign (UC-04)
Output	Shows notification of start campaign.
Precondition	• Brand must be registered • Brand should have subscribed to a plan
Post-condition	● Brand must enter tags for campaign ● Brand must decide budget for campaign ● Brand must decide a deadline for campaign

4.5.4: OC4:

Name	startCampaign(brandID)
Type	System
Responsibility	It is used to set the type and details of campaign.
Cross Reference	Start Campaign (UC-04)
Output	
Precondition	Brand must have entered the details of campaign.
Post-condition	● Campaign must be initiated. ● Influencer must be able to respond to campaign.

4.5.5: OC5:

Name	startCampaign(brandID)
Type	System
Responsibility	It is used to set the type and details of campaign.
Cross Reference	Start Campaign (UC-04)
Output	
Precondition	Brand must have entered the details of campaign.
Post-condition	● Campaign must be initiated. ● Influencer must be able to respond to campaign.

4.5.6: OC6:

Name	createOffer(InfluencerID)
Type	System
Responsibility	It is used to respond to the campaign of influencer.
Cross Reference	Send offer (UC-05)
Output	Shows a offer received to brand.
Precondition	Brand must have started a campaign.
Post-condition	● The offer sent must be visible to brand. ● The brand can respond to the offer.

4.5.7: OC7:

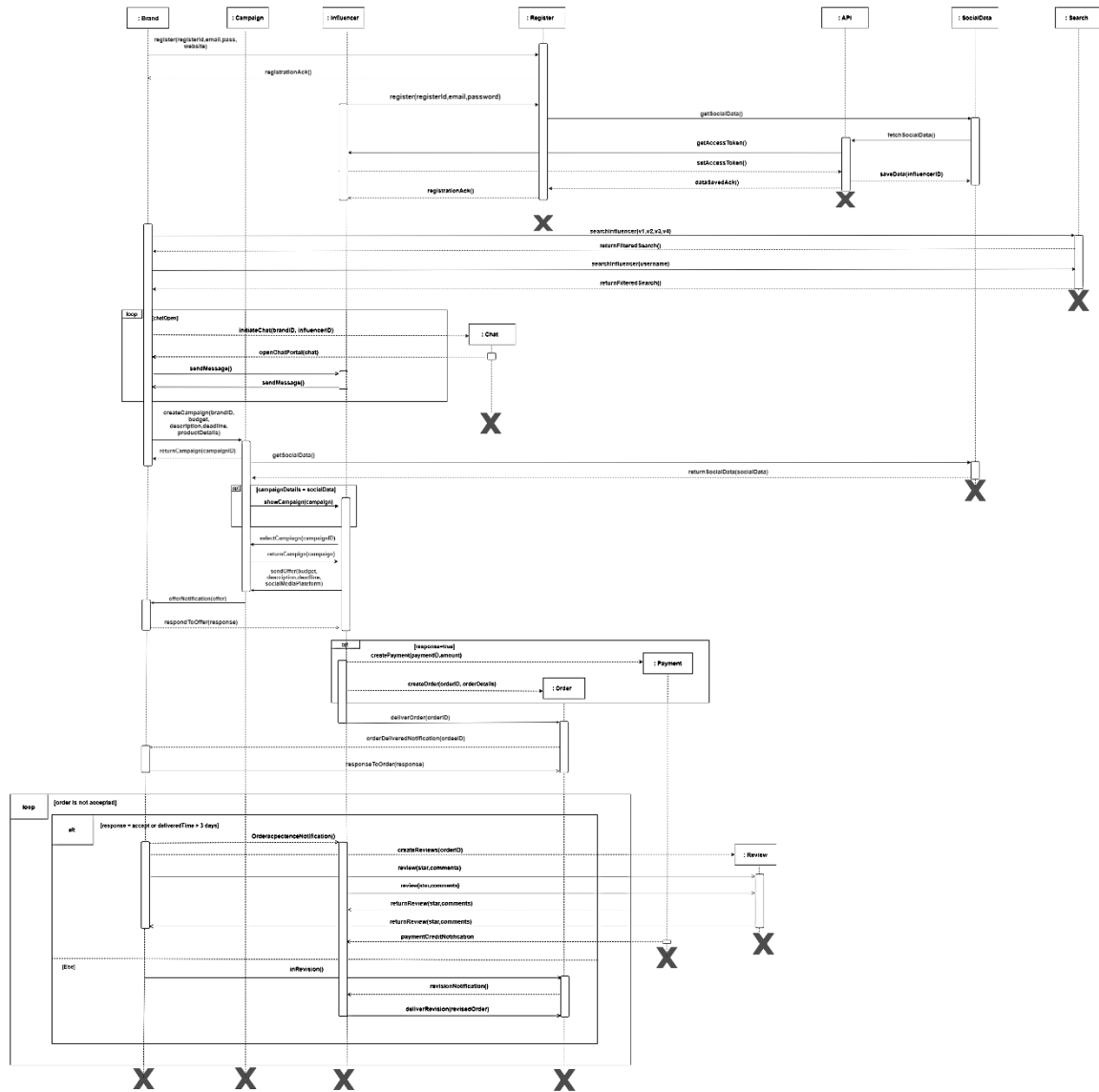| Name	askForReviews(rating, comments)
Type	System
Responsibility	It allows influencer and brand to give reviews.
Cross Reference	Submit review (UC-07)
Output	
Precondition	Order is marked completed.
Post-condition	The reviews are displayed to both users.

4.6: Sequence Diagram

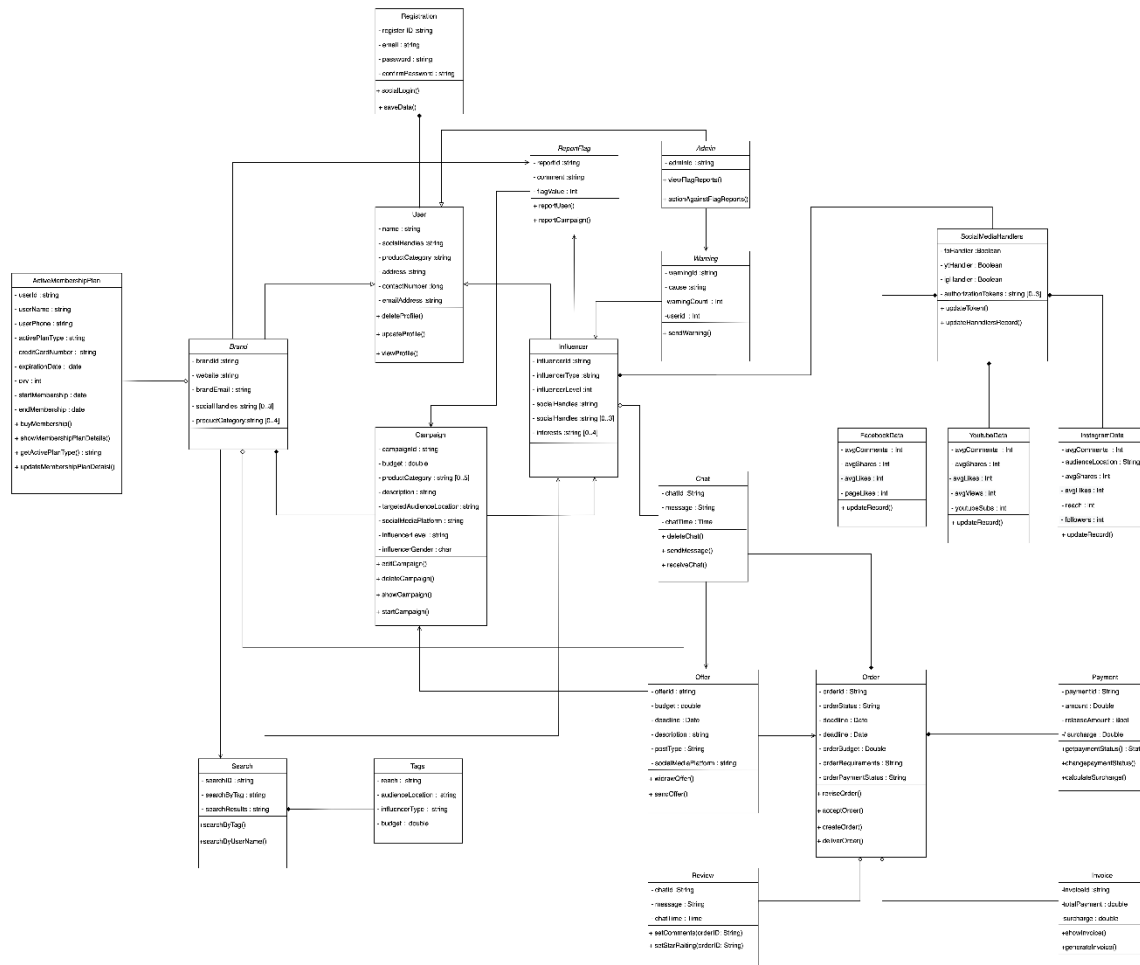*Figure 11 Sequence Diagram*

4.7: Class Diagram
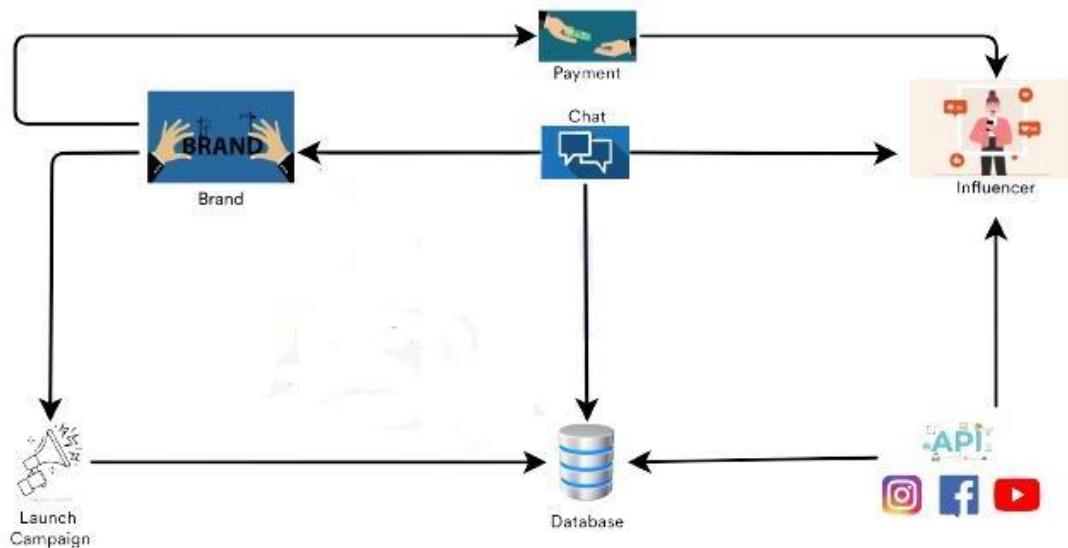

Figure 12 Class Diagram

4.8: Architecture Diagram

Figure 13 Architecture Diagram

5: Reference

https://www.javatpoint.com/

https://www.techopedia.com/

https://www.softwaretestinghelp.com/

https://walee.pk/

https://www.inbeat.co/

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https://www.forbes.com/sites/robertwynne/2013/04/10/what-does-a-public-relations-agency-do/#:~:text=PR%20agencies%2C%20as%20opposed%20to,%22paid%20media%22%20or%20advertisements.