Computer Science Department

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TheLink

Software Requirements Specification
Version <3.0>

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Revision History

Date	Version	Description	Author
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Introduction

1.1 Purpose of the system

The purpose of this system is to provide drop services to anyone who needs them, it will allow a user to sign up as both a client and/or a 'CREATIVE'. The system will be in the form of a website that positions the skills of every creative that is signed up on the website to any prospective clients.

1.2 Scope of the System

The system will be a drop service website for creatives of all ages. The system will be designed in a way that enhances and positions the skills of every creative signed up on the website to potential customers thus creating both job opportunities and helping clients minimize their workload.

The following features will be included in the system:

- Login feature for registered creatives
- Direct message feature between creative and client
- Forms for clients who wish to send in queries and/or complaints
- Galleries to show off the creative's skills
- Payment option

1.3 Objectives and Success criteria of the project

The main objective for the development of TheLink is to bridge the unemployment gap because everyone is good at something hence, we will deliver a platform where individuals can sell their skills online thus creating jobs and making work easier.

Everything has been going according to our outlined schedule until we encountered a problem a few weeks back which delayed the development process by a few days, however the problem was caught early in one of our team's regular meetings. The problem was caught and fixed and now everything is back on track, although the problem increased the estimated cost of the project, the cost is still lower than what it would have been had the problem been caught at a later stage. Overall, everything is going according to plan.

1.4 Definitions and Acronyms

Creative- Hired creator
CSS- Cascading Style Sheet
HTML- Hyper Text Markup Language

PHP- scripting language used for web applications
DM- Direct Messaging
Via- Through
JavaScript- programming language

1.5 Technologies and Tools

The system will be developed using the HTML editor, Microsoft Expression Web. It will have a blend of programming languages. It will have HTML, CSS, JavaScript, and other elements each being used for a specific purpose to provide the overall functionality required.

1.6 Overview

The remaining sections of this document provide a general description, including characteristics of the users of this project, the product's hardware, and the functional and data requirements of the product.

Proposed System Description

2.1 System Overview

TheLink website's ultimate ambition is to create a way for people to earn money using their creativity and hard work, the website aims to connect different people who have the same goal in mind by means of a drop-servicing system. The system will allow individuals to register as either a client, 'creative' or as user. Creatives will be able to set up their galleries in a way that positions and enhances their skills, this will help in luring clientele and thus increase their chances of getting hired. The system will allow users to make payments through the website once they have made a skill purchase both the user and creative will be able to communicate using the message feature. However, users need to create an account and register to be a member in order to have access to the system.
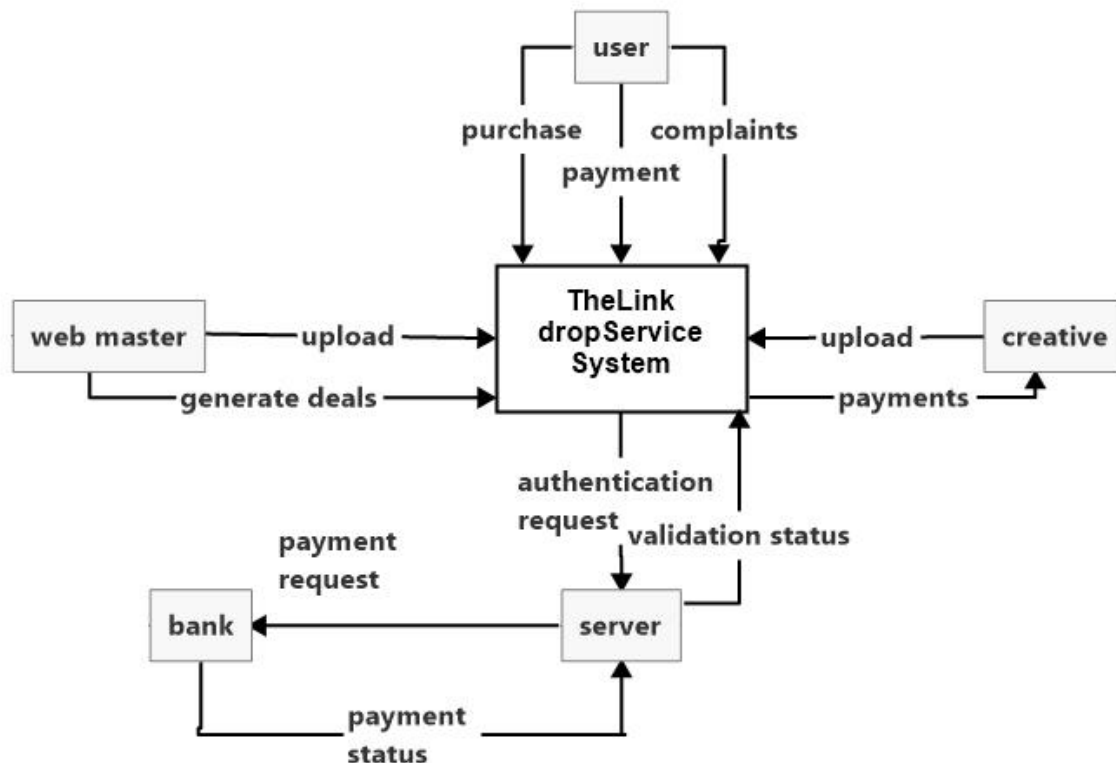
2.2 System Environment

Fig 1 Context model of the system environment

Requirements Specifications

3.1 Functional Requirements

Feature 1# - Login

Table 1: FR for login

Req. Id	#Login FR
R1.0	Registered <TheLink> users shall be able to <Login> using a valid username and password
R1.1	On successful login users shall be redirected to the homepage of <TheLink>
R1.1.0	On failure, for not registered username prompt "Username not registered" message and for invalid credentials prompt "Invalid credentials"
R1.1.1	New users shall be able to register with <TheLink> by clicking the "Sign-up" link
R1.1.2	Users shall be able to recover password by clicking on "Forgot Password" link

Feature 2# - DM

Table 2: FR for DM

Id	#DM FR
R2.0	<TheLink> shall allow a user to send a <DM>
R2.1	Upon successful purchase the user and creative can further discuss the criteria of the job

Feature 3# - Forms

Table 3: FR for Forms

Id	#Forms FR
R3.0	<TheLink> shall allow users to fill in <Forms> regarding any queries
R3.1	Upon successful login, user shall be able to navigate webpages
R3.1.1	If user encounters ambiguous deal or post, user shall be able to send in query using form feature
R3.1.2	On failure of filling in form correctly prompt "required field empty" for empty fields
R3.1.3	Upon successful submission of query form, webmaster shall receive and respond to query

Feature 4# - Payment

Table 4: FR for Payment

Id	#Payment FR
R4.0	<TheLink> shall allow users to make<Payments>via the system
R4.1	On purchase order user shall be required to provide payment method
R4.1.1	Server shall authenticate the payment method
R4.1.2	Upon successful authentication user shall have the option to checkout
R4.1.3	On successful checkout, server shall send a payment notification to user, creative shall receive order notification
R4.1.4	On failure to provide correct payment method, prompt "invalid method" shall appear

Feature 5# - Feedback

Table 5: FR for Feedback

Id	#feature FR
R5.0	<TheLink> shall allow users to give<Feedback>on the creative
R5.1	Upon successful login, user shall be able to navigate webpages and search profiles
R5.1.1	User shall be able to view and give feedback on creative's work

3.3 Non-Functional Requirements

3.2.1 Usability
R1.0: The login functionality shall behave same on different platforms (Windows/Linux)
The system shall allow users to move between webpages in by relative links

3.2.2 Reliability
TheLink website will be on a server with high speed capacity and shall function consistently for 24/7/365

3.2.3 Performance
R1.0: On successful login, user shall be redirected to the homepage within 10 seconds (max)

R1.1: The system shall respond to user interaction within maximum 4 seconds, minimum 0.4 seconds, average 2 seconds (with a CPU load of 1)

3.2.4 Security
TheLink has a login function which will protect individual accounts from ethical hacking,

more so there are other implementations in the case of DoS, cyber and Hacking attacks. The entire system is designed in a manner that will ensure the integrity of every individual's account information and transactions.

3.2.5 Implementation

The system shall allow several sales to be made at the same time without jeopardizing the performance.

3.2.6 Others

TheLink is a web-based system that works on all browsers and has a mobile response solution.
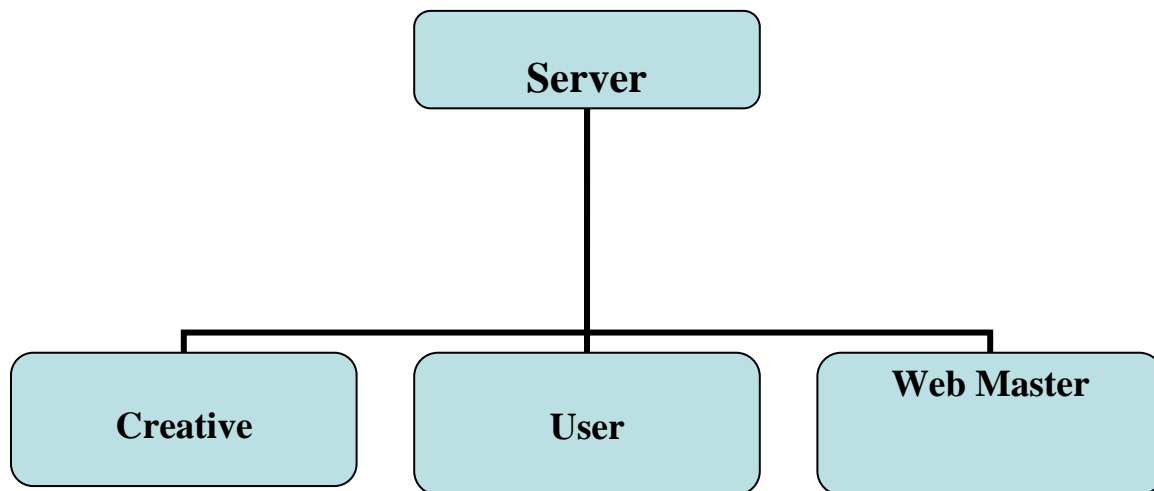
System Models

4.1. Actors and Roles

Fig 2: Actors

Table 6: Actor roles

Creative	User	Web Master	Server
Login Receive messages View their wallet upload	Login Browse Make payments Review creatives	Post new event Upload	Authenticates user details and payments

4.2. Use Case Model
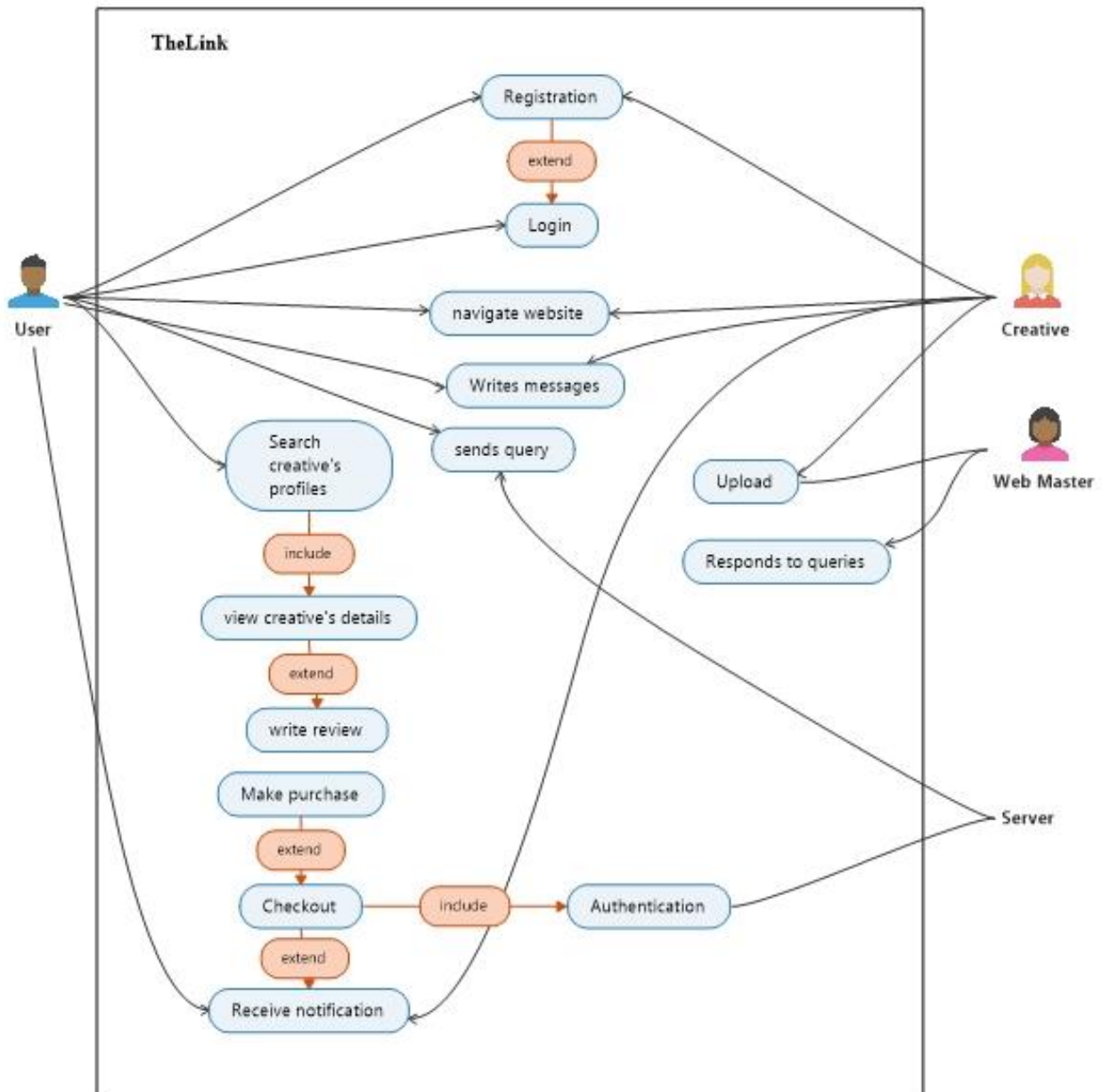
Figure 3: TheLink website use case diagram

4.3. Use case Descriptions

Case description

Login – upon successful registration, the user and the creative must provide a valid username and password to login to the website.
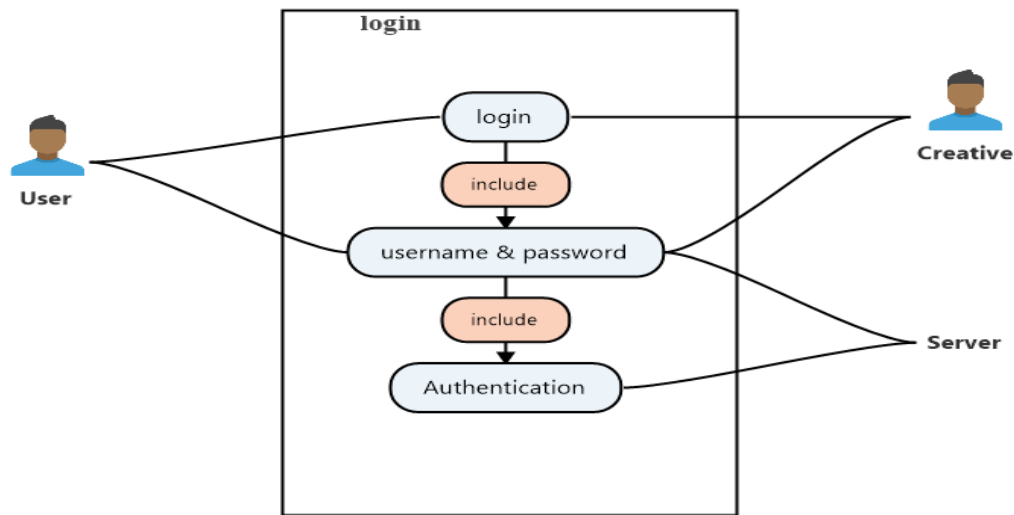
Fig 1.1 Use Case for Login feature

Use case name	Login
Actors	Creative, User, Authentication
Preconditions	1. Successful registration
Flow of events	1. The Use case starts after successful registration 2. The system requires a username and password to login 3. The password and username are sent to the system to be authenticated
Post Conditions	1. username Authentication 2. password Authentication

Table 1.1: Use case description table for Login feature

Case description

DM- Users and creatives will be able to exchange messages
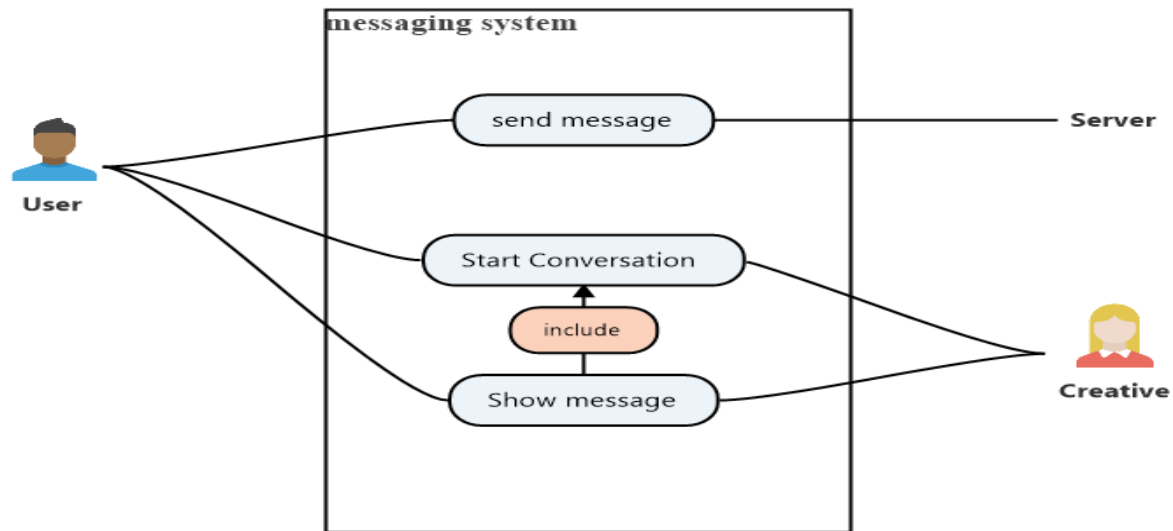
Fig 2.1 Use Case for DM feature

Use case name	DM
Actors	Creative, User, Server
Preconditions	1. User must be logged in
Flow of events	1. User sends message via the direct message tab 2. Server passes the message to the creative's account 3. Creative views the message and has a choice to respond
Post Conditions	1. None

Table 2.1: Use case description table for DM feature

Case description

Query Form- in the case of a query a user will be able to fill in a query form for the web master to be able to help

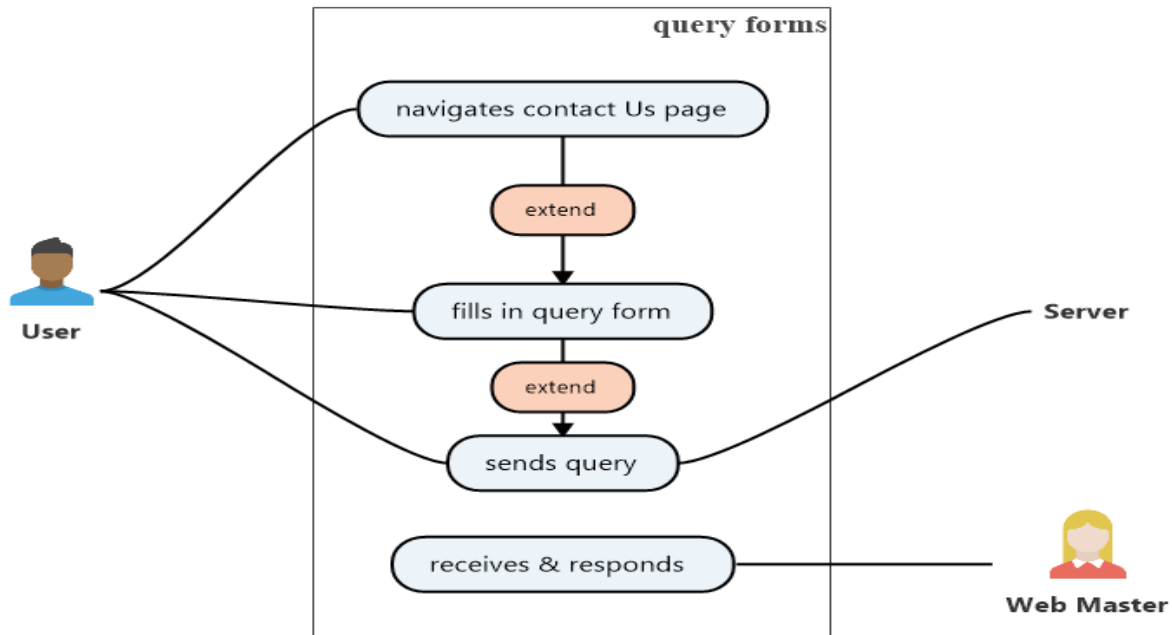
Fig 3.1 Use case for form feature

Use case name	Query form
Actors	User, Web master, server
Preconditions	1. User must be logged in
Flow of events	1. This use case starts if a user has a query 2. User fills in the form 3. Server sends it to web master 4. Web master receives and reviews the query
Post Conditions	1. All fields must be filled

Table 3.1: Use case description table for form feature

Case description

Payment- Upon skill purchase a user will be asked to provide the system with a payment method, if this method is authenticated both user and creative will receive notification if not then user will receive a prompt "invalid payment method"
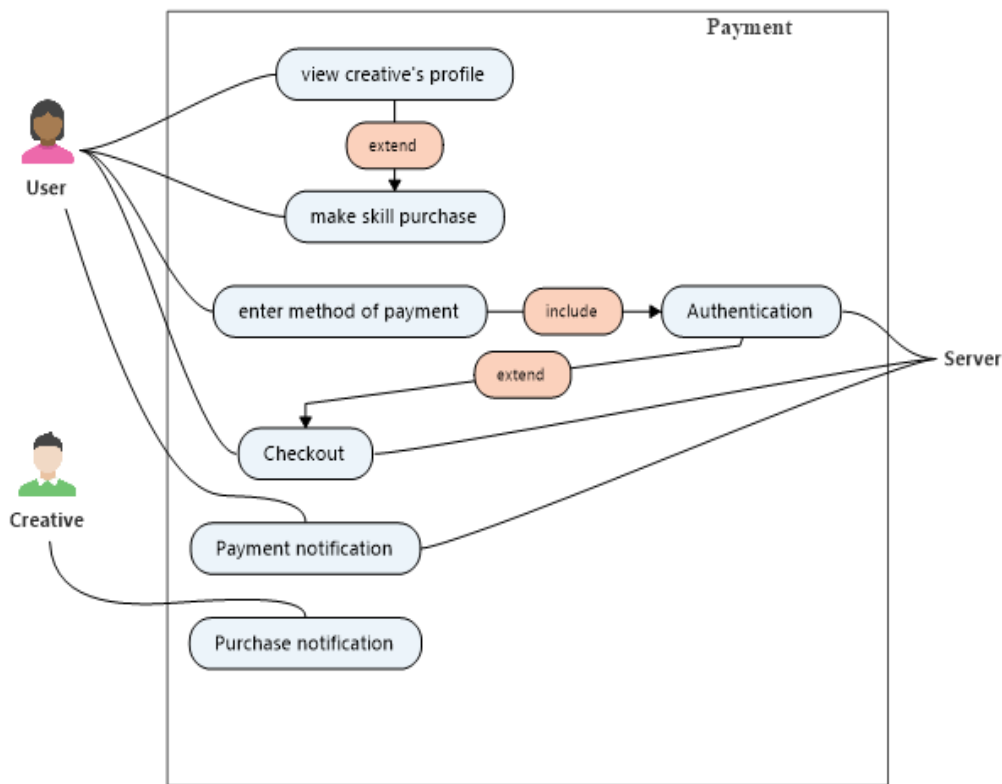
Fig 4.1 Use case of Payment feature

Use case name	Payment
Actors	User, Creative, Server, Authentication
Preconditions	1. user must be logged in 2. user must make a purchase on a creative's profile
Flow of events	1. The use case starts after a user has purchased a skill 2. User prompt "Payment method" 3. Server will authenticate the details provided 4. User will checkout the purchase 5. Server will receive checkout notification and send a payment receipt to user 6. Creative will receive a skill purchase notification
Post Conditions	1. Banking method details must be correct 2. Creative has a choice to decline purchase

Table 4.1: Use case description table for Payment feature

Case description

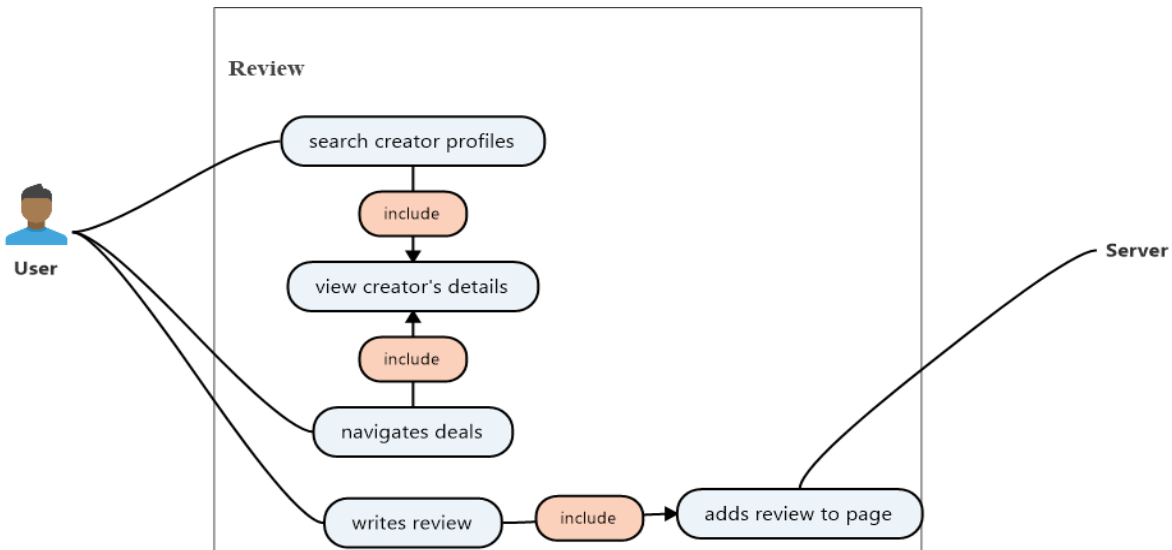Review – user will navigate and search creator profiles and will be able to write reviews for their work

Fig 5.1 Use case for Review feature

Use case name	Review
Actors	User, Server
Preconditions	1. Must be logged in 2. Must be viewing creator's profile
Flow of events	1. User visits a creator's profile 2. Views the profile contents 3. Writes review
Post Conditions	1. Must have a purchase history

Table 5.1: Use case description table for Review feature

4.4. Dynamic Model
Login sequence diagram
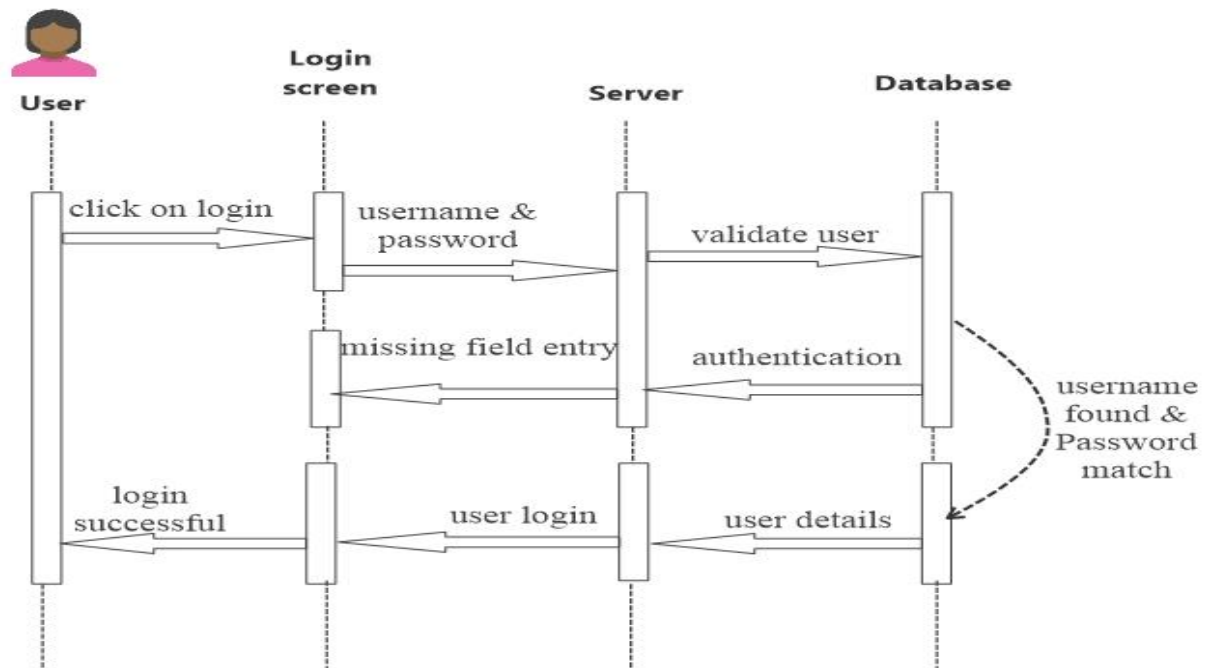

Fig 1.2 sequence diagram of login feature

Query form sequence diagram

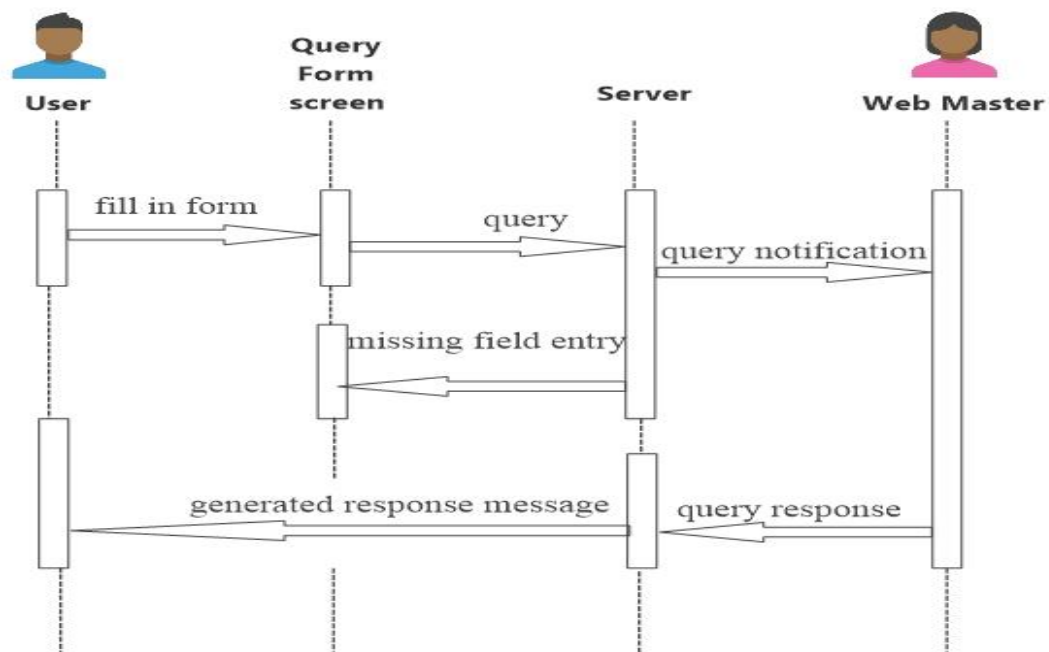Fig 3.2 sequence diagram of query form feature
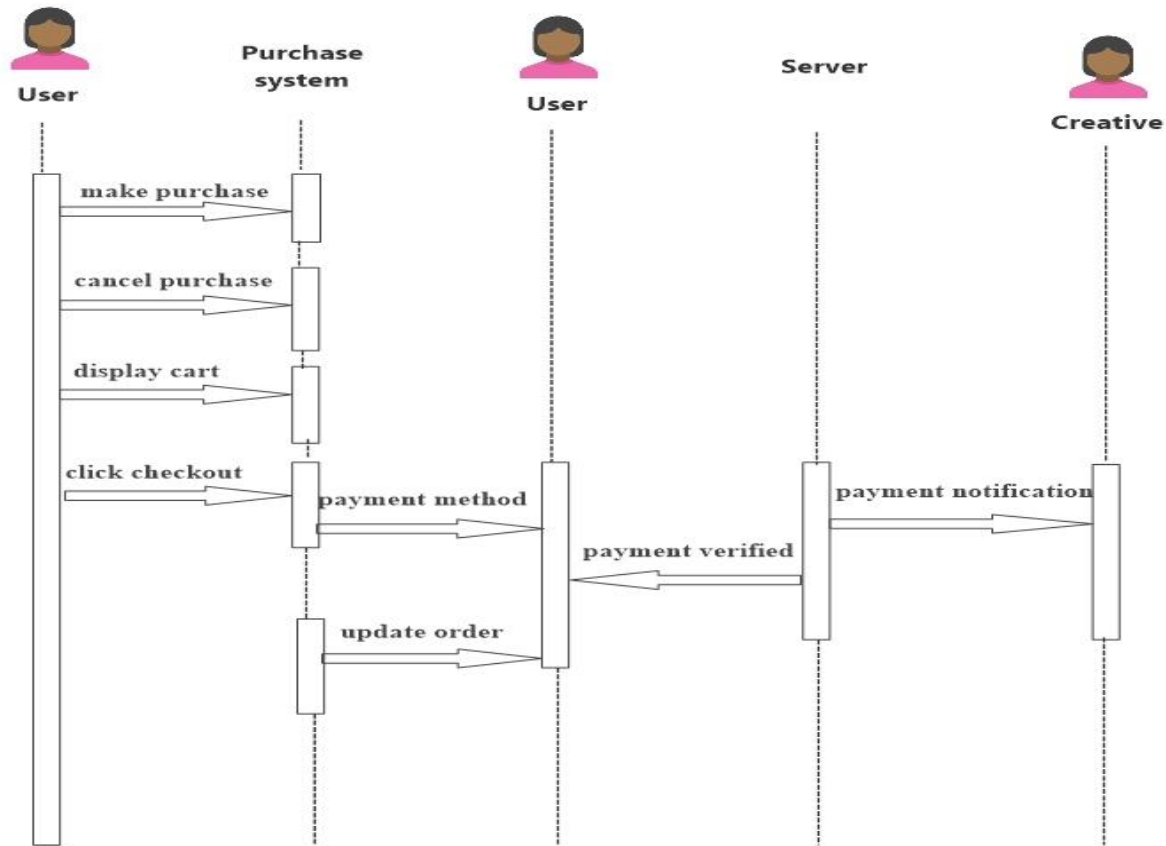
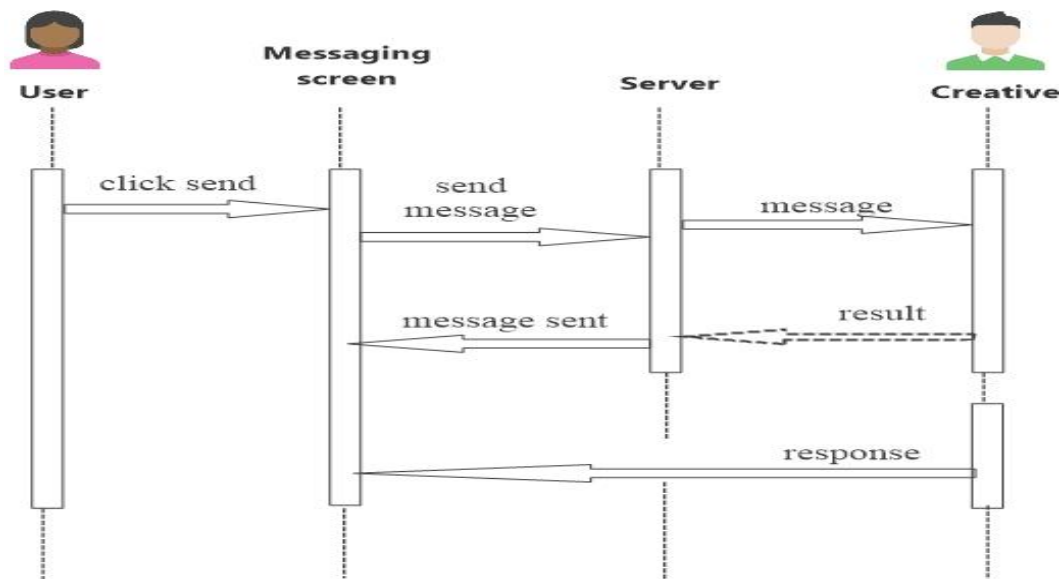Payment sequence diagram

Fig 4.2 Payment sequence Diagram

Messaging sequence diagram

Fig 2.2 Sequence diagram for Messaging feature