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### Online Job Exchange Platform

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#### Abstract

The aim of this project is design and implementation of an online job exchange platform. This will be achieved through design of an UML use case diagram, database structure, and layouts for the application. The implementation of the design will be achieved using Bootstrap and JQuery for the frontend, and Laravel with Mysql for the backend design. This Project will be built on Laravel. Php/Mysql will be used for the backend and HTML5/CSS3 with some client-side scripting languages. This project covers all the basic

part of an online job exchange platform with a system that gives freelancers' a chance of getting a job. However, the administrator panel of the application will not be included in this project due to the period of time for the implementation and as a result of academic activities within the school. All Administrative function would be done with the phpmyadmin. The system has been built in such a way that it can accommodate future changes.

**Keywords:** Online Job, Exchange Platform, Bootstrap and JQuery, Laravel with Mysql, Scripting Languages, Freelancers

#### 1. Introduction

Despite the numerous opportunities, there is a great deal of concern about the future of work <sup>[2]</sup>. The advent of digital labour platforms has been one of the most visible changes in the world of work over the last decade <sup>[8]</sup>. Web portals continue to play an important role in organizations <sup>[5]</sup>. This is owing to the internet's introduction, which allows for global connectivity for all activities and improved job prospects in underdeveloped countries <sup>[6, 7]</sup>. Job searchers, ranging from low-wage labourers to highly qualified professionals, are increasingly <sup>[9]</sup>. An online job exchange platform allows people to post job requests based on their skills and qualifications <sup>[4]</sup>. It is a platform for people to post and get jobs <sup>[4]</sup>. With this system people don't need to travel from one place to another before having their job done. When a job is posted and assigned to the right individual, that person is responsible for completing and delivering the job on time. People will be able to earn money online from the convenience of their own homes thanks to the system.

The essence of this work is to gather the necessary information to the development <sup>[3]</sup> of an online job exchange platform that will be advantageous over non-freelancing and build on the major problems associated with the current freelancing platforms. In the traditional method of working in a workplace compared to using an online job exchange platform, there are series of problems which are often encountered. The first disadvantage with the traditional provision of job and services in a particular workplace as an employee is that the employee does not have the ability to work whenever he wants <sup>[1]</sup>. Whenever an employee prefer consistency or shaking things up when it comes to work environment, the employee choose to work wherever he wants. Another problem is that employees cannot take decision on their own, they have to follow the lay down protocols of the company <sup>[1]</sup>. Further to this, employees keep working for a flat rate no matter how large the projects are <sup>[1]</sup>. This project will improve the existing systems available by using an algorithm that will increase freelancers' chance of getting a Job and also to build a system where people pay almost nothing on any work giving out to people. This system will be developing <sup>[3]</sup> so as to give everyone freedom on how they choose to work or give a job for someone to do for them, and to make people make money online from the comfort of their homes without the need to travel from one place to another in order to get a job done.

#### 2. Materials and methods

This section describes the method and steps used in developing this work <sup>[3]</sup>.

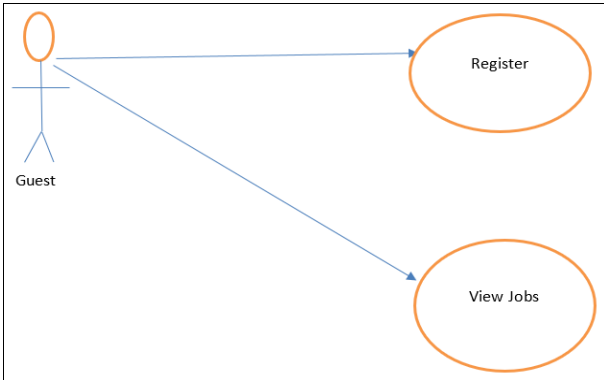
The following software will be used for the development of the project:

1. Framework: Laravel

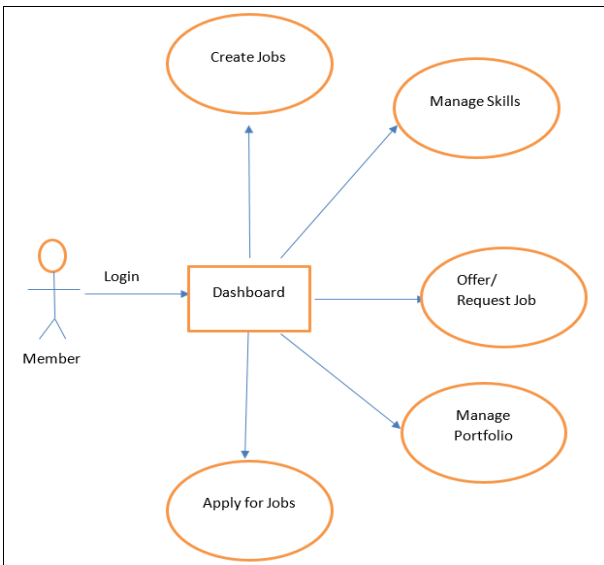
2. Browsers: Mozilla Firefox, Google Chrome and UC Browser recommended
3. Front end: HTML5/CSS3
4. Back end: PHP/MYSQL

The system will be built on Laravel Frameworks. The will be designed with PHP and MYSQL as the backend and HTML5/CSS3 with Bootstrap for the frontend design. It has a Signup, Login and Dashboard Module. From the dashboard, users will be able to update their profile, search for jobs, offer jobs, apply for jobs, build their portfolio, load their wallet, make payment, view users' portfolio, view cashouflow and cashinflow.

**2.1 Job exchange architecture**

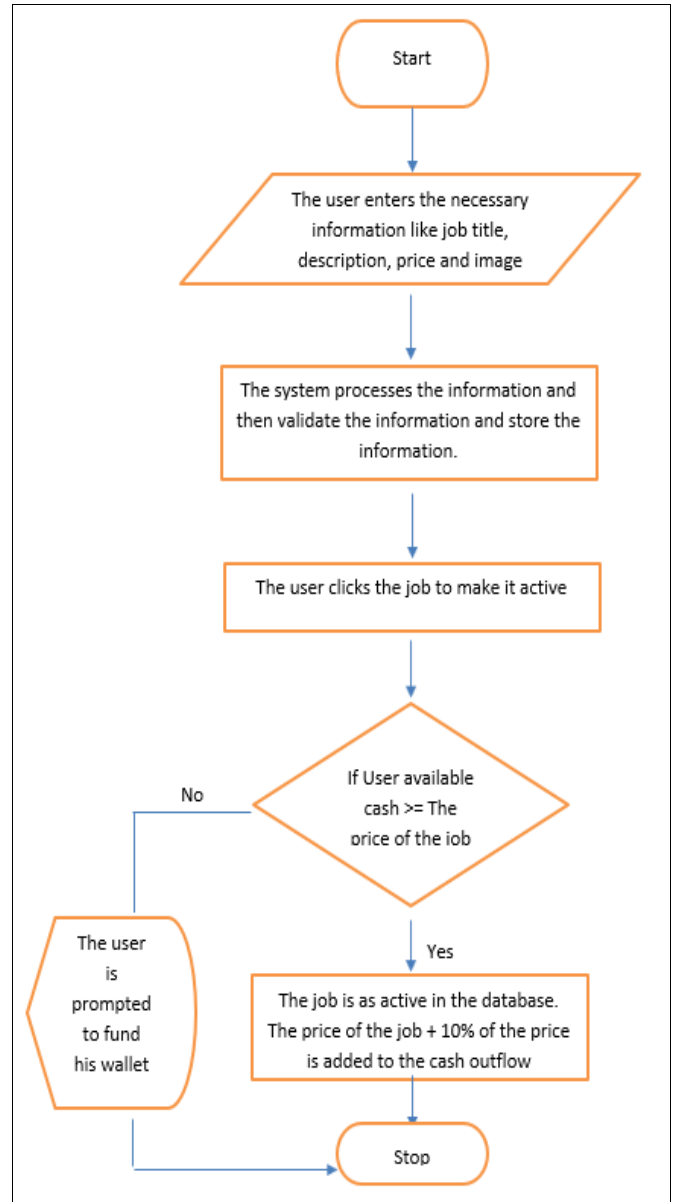


**Fig 1: Guest Use Case Diagram**



**Fig 2: Job Exchange System Use Case Diagram**

**2.2 Create jobs use case flow chart**



**Fig 3: Create Jobs Flow Chart**

### 2.3 Apply for job use case flow chart

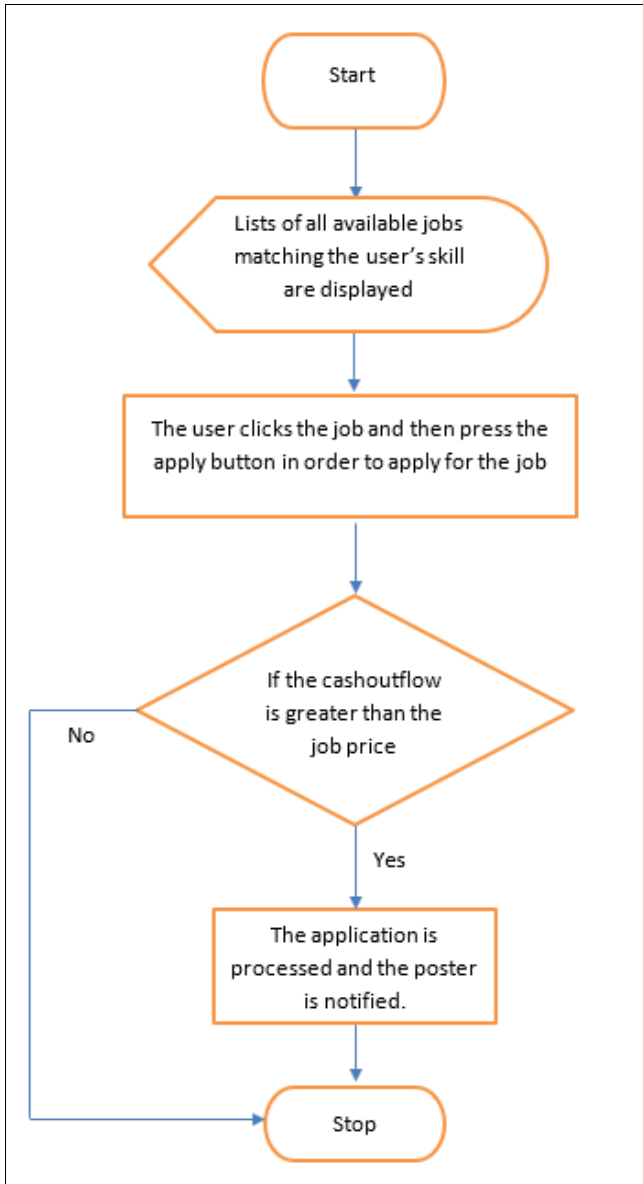


Fig 4: Job Application Flow Chart

### 2.4 Functionality test scenario

The functionality of the system will be tested by allowing three users A, B and C to register. User A would load his wallet with 3000 naira and user C would load his wallet with 2000 naira. User A would create a job of 1000 naira and user C would create a job of 1500 naira. Their cash outflow would become 1100 and 1150 respectively. Jobs from A and C will be visible within the system. User B would also try to create a job, but the system would reject it as a result of insufficient fund in his wallet. User B would try to apply for a job, but the system would also reject it, because he doesn't have a cash outflow. User C would be able to apply for User A's job, because his outflow is greater than the price of User A job. User A on the other hand cannot apply for User C's Job because his outflow is not up to the price of the job. Once User A approves the job for User C, the price of that job moves away from his outflow and then move to the Cash inflow, and once User A releases the fund of that job to User C (as a result of the completion of the job). The amount moves away from the Cash inflow to the Cash, where the user can choose to withdraw the fund. The process goes on

like that for anyone within the system. The practical demonstration of this scenario will be presented in the next chapter.

## 3. Testing and implementation

### 3.1 System interface

The system contains several interfaces working together in order to achieve the goal of the system. As stated in the previous chapter, three users A, B and C will be made to register and have their wallet funded in order to test the system's functionality. In this chapter each module of the system will be tested individually and the result will be presented as screenshot.

#### 3.1.1 Homepage

This is the system's homepage, the first page that will be presented to every user. It contains information relating to the system. It contains links to other pages like login, registration, view jobs, etc. The Login and registration link will change to the dashboard links for logged in users.

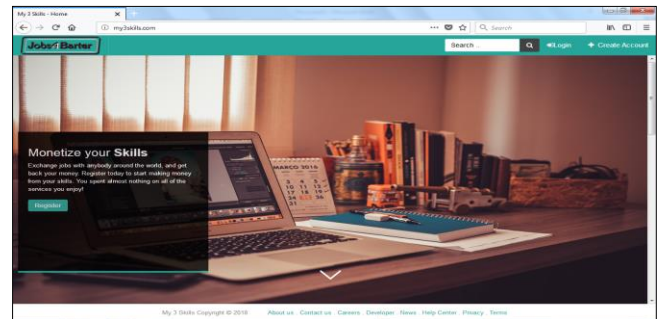


Fig 5: Homepage Section

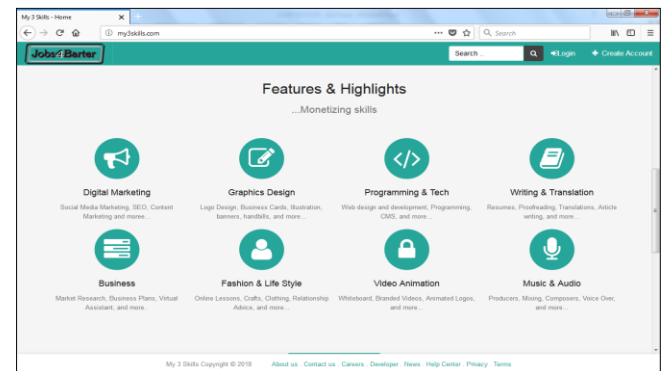


Fig 6: Homepage Section 2

#### 3.1.2 Registration and login page

This is where new user can register in order to have access to the system. The user will fill all the requested data.

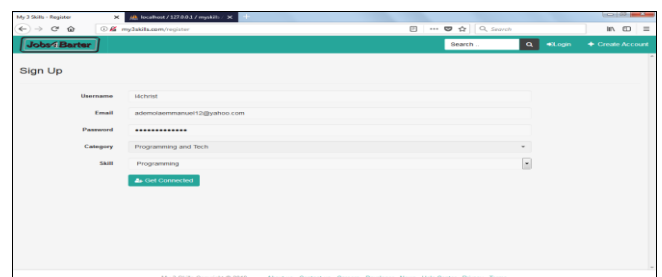


Fig 7: Registration Page

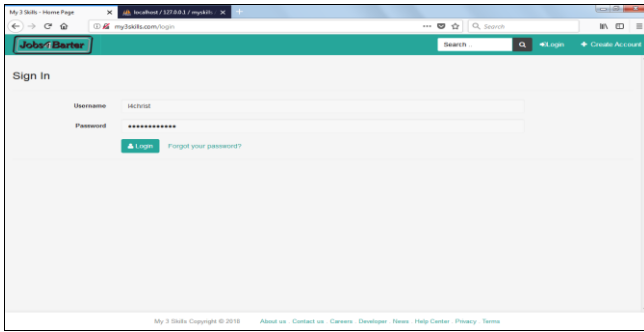


Fig 8: Login Page

### 3.1.3 Dashboard

This is the system dashboard where user can carry out activities like post job, request for job, apply for job, update profile, notifications, make payments, etc.

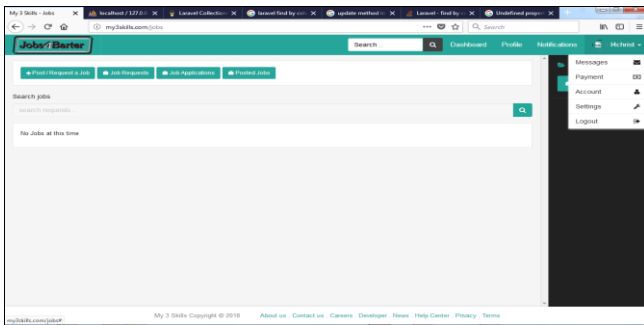


Fig 9: Dashboard

### 3.2 System's functionality testing

Three users registered into the system as shown below. The first and the third person's wallet were funded with 3000 and 2000 naira respectively.

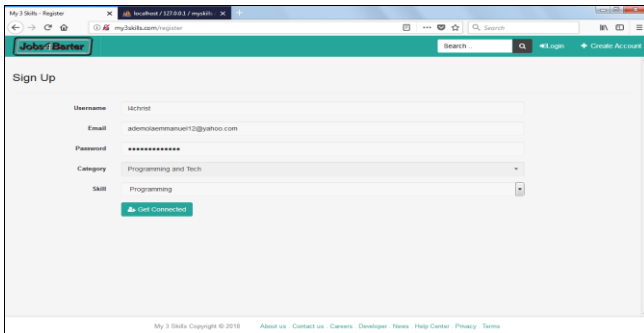


Fig 10: User1 Registration

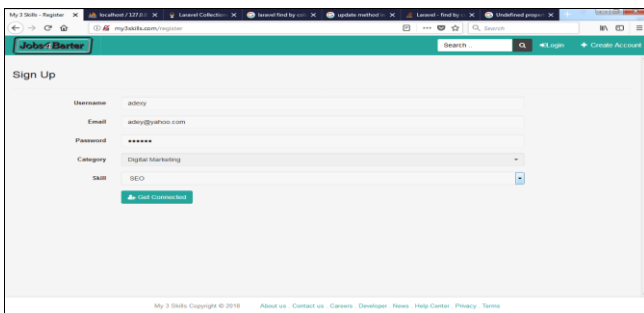


Fig 11: User2 Registration

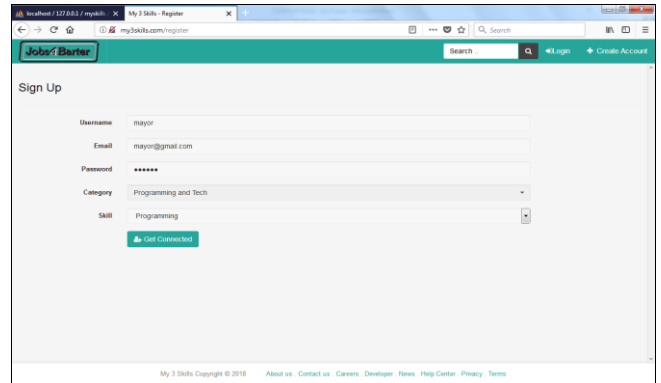


Fig 12: User3 Registration

### 3.2.1 Wallet funding demonstration with Phpmymadmin

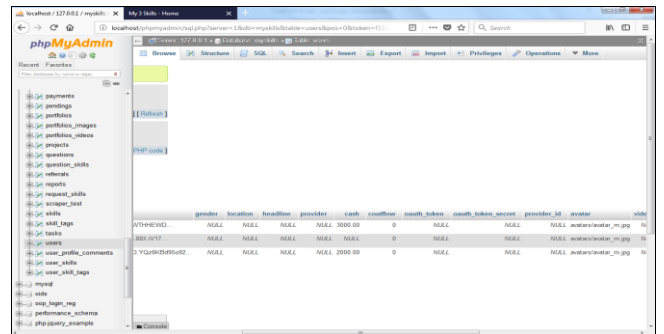


Fig 13: Wallet Funding

### 3.2.2 Post job functionality

Each user will try to post job and the system will only make the job active if the user has enough fund in his or her wallet. If there is enough fund, the fund will move from their Cash to the Cashoutflow.

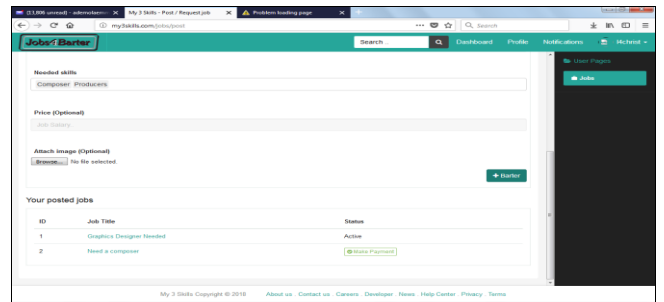


Fig 14: User1 Job Post

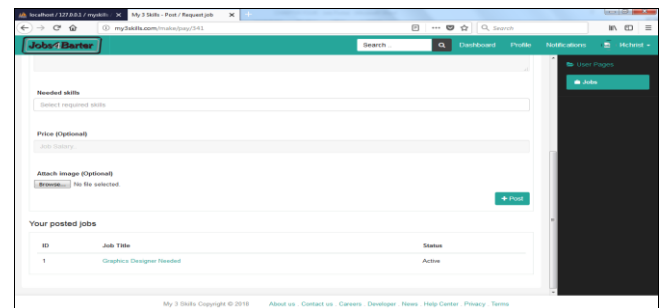


Fig 15: User1 Job Post Active

set. The system allows users who already have a posted job.

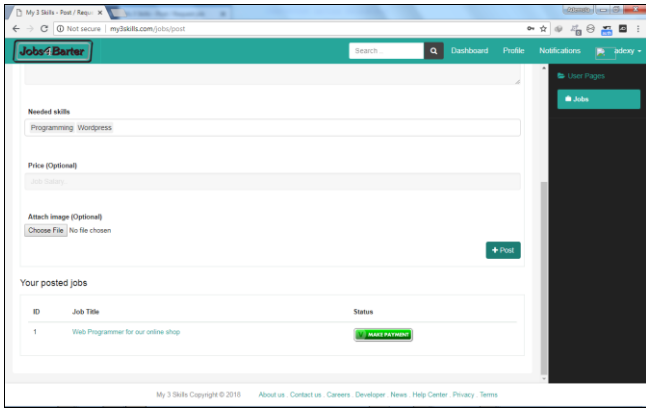


Fig 16: User2 Job Post

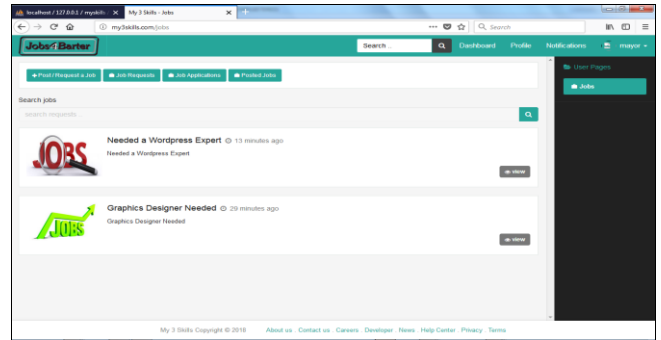


Fig 20: User3 View Job

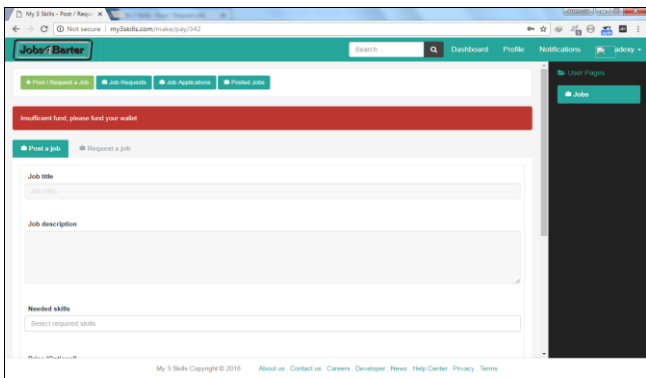


Fig 17: User2 Job Post Not Active

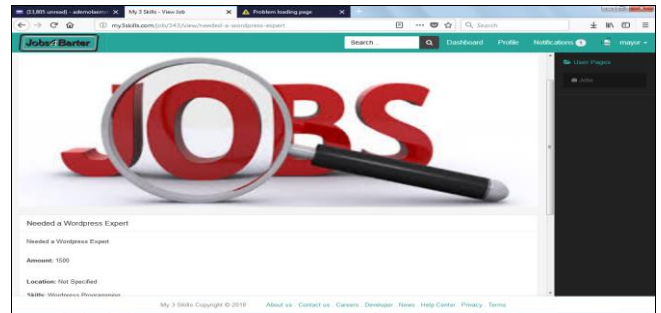


Fig 21: User3 Apply for Job

**3.2.4 Approve job functionality**

The first will view all his posted job applicants and then approves the job to anyone of his choice. Fund moves from User3 Cash outflow to Cash inflow.

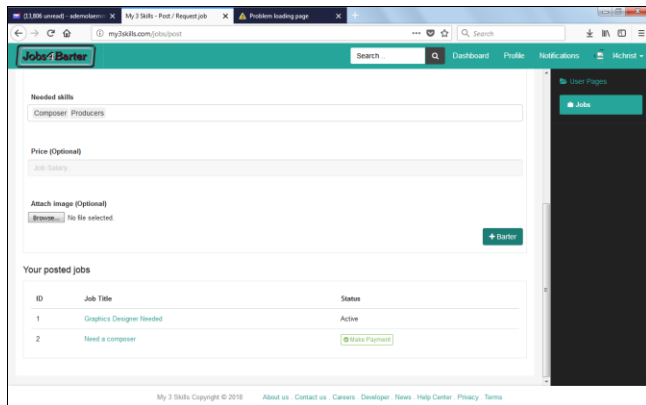


Fig 18: User3 Job Post

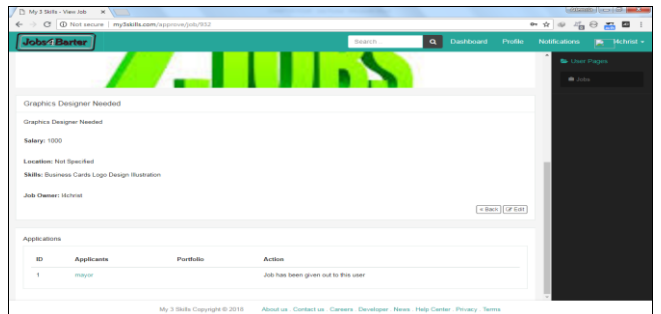


Fig 22: User1 Approve Job

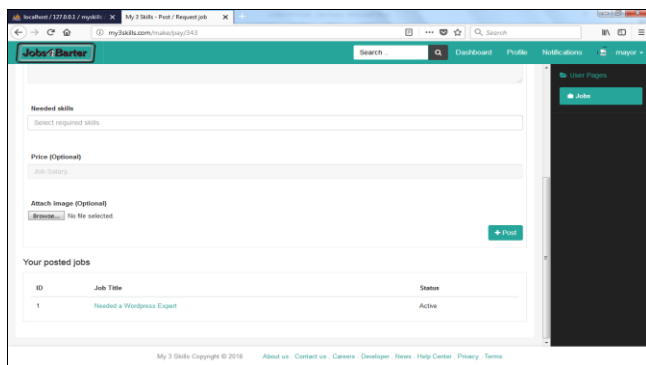


Fig 19: User3 Job Post Active

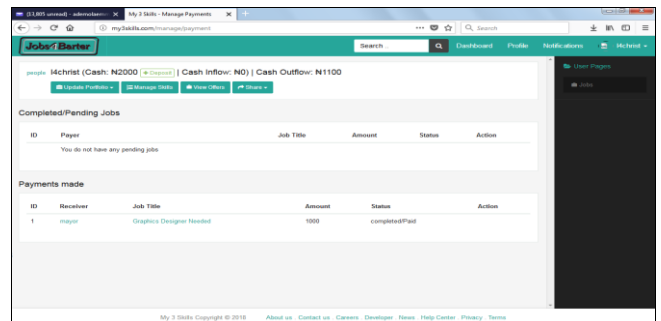


Fig 23: Cash outflow / Cash inflow

**3.2.3 Apply for job functionality**

Here each user tries to apply for job depending on their skill

**3.2.5 Complete job functionality**

User3 completes the job, and wait for User1 approval. Upon approving, fund moves from his cash inflow to his cash.

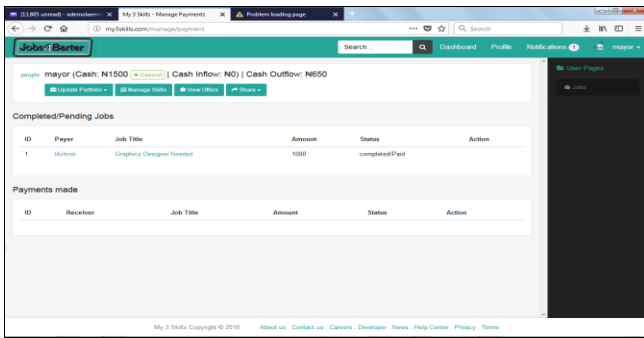


Fig 24: User3 Complete Job

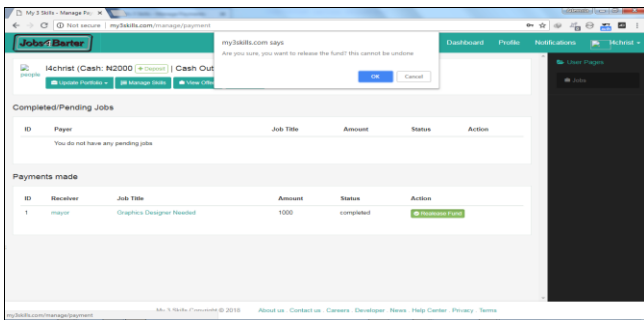


Fig 25: User1 Release Fund

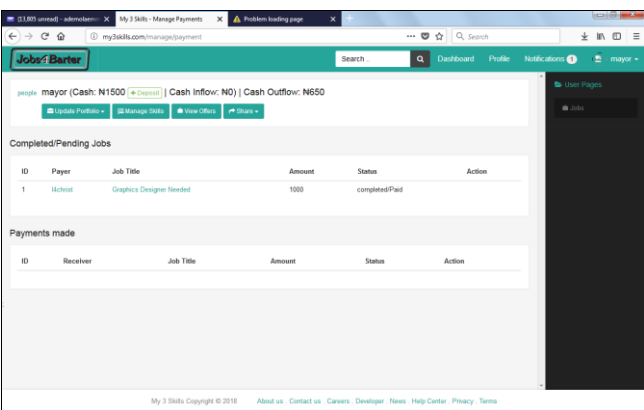


Fig 26: User3 Cash

**Limitations**

Currently, only naira is supported within the system, there is a need to create a system that will support other countries or currencies so that users in different countries can exchange jobs.

**4. Conclusion**

In this project a job exchange platform has been designed to improve the existing systems available by using an algorithm that will increase freelancers' chance of getting a job. A system has been developed where people will pay almost nothing on any work giving out to people. The system will give freedom to people on how they choose to work. The system will give people the ability to make money online from the comfort of their homes. An algorithm has been developed that will create a fair environment for people to get and give out jobs. The system will increase freelancer's chance of getting jobs. The system is accessible anywhere and anytime. The system was developed with Laravel Framework for the backend and HTML CSS3 and JavaScript for the front-end design.

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