

**A WEB BASED JOB APPLICATION PORTAL FOR STRATHMORE
UNIVERSITY**

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BBIT 4B

**An Information System Project proposal submitted to the School of Computing and
Engineering Sciences in partial fulfilment of the requirements for the award of the
Bachelor's Degree in Business Information Technology of
Strathmore University**

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Declaration

I Raymond Bidii Kisyang'a declare that this work has not been previously submitted and approved for the award of a Bachelor's degree by this or any other University.

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26/01/2021

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..... [Date]

Abstract

Over the past few years, it has been noted there has been an increase in demand of jobs worldwide. Due to this, companies have been receiving various applications therefore making the process of application for these jobs for university students who are about to graduate or have graduated frustrating for them therefore leading them to apply for jobs that they do not want, or they do not have the required skill. However, Strathmore's University Career Development Office has tried to help Strathmore students overcome these challenges by offering free advice and accepting manual applications which can be tiresome to manage since these applications are paper based therefore making it difficult to track various student's applications by the career development officers therefore making it a burden to them due to the heavy workload of reviewing and filing various applications.

The developed system is meant to help Strathmore University with their job application process. The developed system is an online web-based job application portal that is meant to be implemented in Strathmore's University Website under the Career Development Site (CDS). The developed enables students to login and submit their various applications, companies to have their own profiles which will show their details, for example, various vacancies, interview dates and various events. This will encourage students to select their careers wisely and in turn land in good working places of their wish.

The developed system has been developed using Prototyping methodology since it is user and time friendly when it comes to developing the system and one can easily make changes to the developed system since it is an actual mockup of how the actual system will look like. Other tools that were used include MySQL as the DBMS and PHP as the programming language and Laravel as the framework.

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List of Abbreviations

CV- Curriculum Vitae

CDS – Career Development Services

SU – Strathmore University

DBMS – Database Management System

Chapter 1: Introduction

1.1 Background

Over the past few years there has been an increase in demands for jobs. To apply for these jobs, one must send their applications to various companies to be recruited. (Alison Doyle, 2019). Due to this, there has been a high competition among people who are applying for these jobs therefore making it frustrating for fresh graduates to apply for these jobs due to the high competition and sometimes end up applying for jobs they never wanted to do. (Julie Petersen, 2016). Due to this, the system developed is for university students specifically for Strathmore University where students can be taken through the process of applying jobs and can apply for their desired jobs with the help of Strathmore's Career Development Office.

Strathmore University is one of the leading learning institutions that offers various courses starting from certificates, diplomas, degrees and even masters. Just like any other learning institutions, Strathmore University has various departments among them being the career development office. The role of the career development office is to enable students have a clear mind set on the career choices they make and guide the students to choose the right career path. This basically means that the career development officers provide counselling sessions to the students to enable them figure out what they want to pursue in terms of choice of careers. To serve the Strathmore University website hosts a career development site (CDS) but however, the website lacks an online job application portal.

The current system involves many applicants sending their CV's to the admissions office which leads to bulk and anxiety. This procedure is tiresome and annoying since the number of applicants applying for the same position will be many. They are not assured of any interviews unless a company calls the office to request for any CV's otherwise the CV's will not be sent. The introduction of an online job application portal in the (CDS) will increase the effectiveness of the job application process and the effectivity of the career development office. The students will be able to register on their own by uploading their CV's to suit the vacancies in the company of their choice, after which the company personnel will go through their CV's and give feedback regarding the information they have received. The students will be expected to log into the site to gain access to the companies' profiles.

1.2 Problem Statement

The procedure of managing job application at the career's office in Strathmore University is paper-based and hence suffers from numerous inefficiencies such as utilizing of too much office space since CV's are collected and stored manually in files, difficult to track various applications, companies cannot advertise various job openings in Strathmore University among many others. Due to all these problems, it leads to inefficient time management since delays can be caused due to lack of applications being received by the company.

1.3 Aim

The aim of this project is to create an extra module in the current Strathmore career development service (CDS) whereby once a company is allowed by the campus, the company can register and have a profile. The system has been developed in such a way that the students can login and make enquiries about a specific position being offered in the company. The students can be updated on the events happening in the school and can apply for them from the site, these events could be career fairs and workshops. Reducing the bulk of CV's at the admissions office. It will be a way to initiate on campus interviews.

1.4 Specific Objectives

- i. To identify the challenges faced by Careers office at Strathmore University Careers office in managing student CV's.
- ii. To design a web-based application that solves the identified challenges.
- iii. To develop the web-based application.
- iv. To test the system in Strathmore University.

1.5 Justification

The developed system enhances the effectiveness of the career development office since the students will be fully aware and conscious about their choices in terms of a career. The developed system ensures that the students can log in and get access to the profiles of various companies. The students are also able to upload their CV's and in case they are selected they receive a notification with the interview dates. This will be a good way to introduce on campus interviews that will allow the students to have a different view on interviews which will be an encouraging factor.

1.6 Scope and Limitations

The developed system can keep a record of the students' details such as the username and password that enables them to log into the site. The developed system benefits the students since they can access the companies' information based on the vacant slots in various departments, the hiring and interview dates. The developed system can enhance ease in choosing their career paths since the students will have a clear mind set in.

The limitations in this case are technology change and adaptation of the system. Technology will keep on changing meaning that the developed system requires progress updates according to the changing trends. The developed system will be received differently by different people thus adaptation of the developed system will be an issue therefore making the implementation of the developed system difficult. This is because people prefer to use already existing systems in which they are conversant with.

Chapter 2: Literature Review

2.1 Introduction

Over the past years, there has been an increase for job demands in Kenya. To apply for these jobs, people are required to apply for these jobs online through various job applications systems such as BrighterMonday and LinkedIn. However, those system focuses on a larger population in the world rather than Strathmore University students only. The developed system mainly focuses on Strathmore students whereby with the help of the career development office they can be able to apply for jobs or internships through the developed system. In this chapter we will review the current career development site in Strathmore University and other existing job application systems in Kenya. This chapter will also show the current trends in the job application sector, existing job application systems and their limitations.

2.2 Process Involved in Job Application

People undergo various processes to apply for jobs. At first, one submits their résumé and a cover letter to various companies that are hiring. The cover letter is important since it explains why your skills and experience are fit for the job. Secondly, one applies for the jobs either via online portals, email or in person. The applications are then screened by use of an application tracking software to determine if the person is a fit for the job. There are various employment tests the successful job applicants go through like medical tests, cognitive tests, background checks and credit checks. Interviews are then conducted for those people who have met the requirements either face to face or online. The qualified applicants are then offered the jobs where they can negotiate their offers and come into terms with their employers and finally the paperwork is signed by both the applicant and the employer. (Alison Doyle, 2019).

2.3 Current System

LinkedIn is one of the systems that has been developed to ensure that people successfully apply for jobs. However, there are several limitations which LinkedIn have such as job recommendations sometimes are not accurate therefore you might end up applying for jobs that you are not relevant with. LinkedIn also acts as a link such that it directs you to the website where these jobs have been posted and therefore most people lack trust in these websites therefore do not use these websites to apply for their jobs. For example, I can apply for a UN internship job, but I will not apply for the job via LinkedIn but through the website link such as jobwebkenya. Most people can endorse themselves for skills they do not have. This can

make employers select you because of skills that you do not have and leave out the rest with qualified skills.

For Strathmore University, the current system works in a way that the students get to have appointments with the career development officers. Appointments enable students to have counselling sessions which enable them to have a clear understanding of what they want to pursue. Events like career fairs are also set aside for the same reason. The CV's are collected in hard copy; the session is done for correction of the resume. Afterwards the office connects the students or applicants with the companies offering the recruitment.

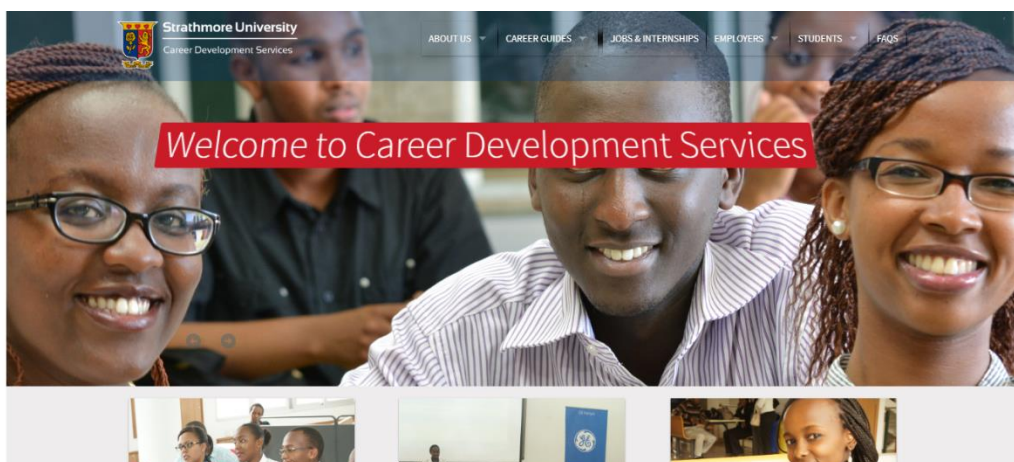


Figure 2.3: SU Career Development Site

2.4 Challenges Faced by Students in terms of Career Selection.

2.4.1 Lack of awareness

Many students are faced by the challenge of not being aware of the specific company and department they want to work in. After identifying a specific career, they should be exposed to several company portfolios to enable them to gain a better understanding of what they are signing up for. Many applicants are selected for interviews that they had not applied for which leads to anxiety. Career decisions are made depending on the following factors: self-knowledge Knowledge of employer and Internship or job search skills. (MIT Career Development Handbook , 2017-2018)

2.4.1.1 Career Development Process

Below is a figure to explain the career development process.

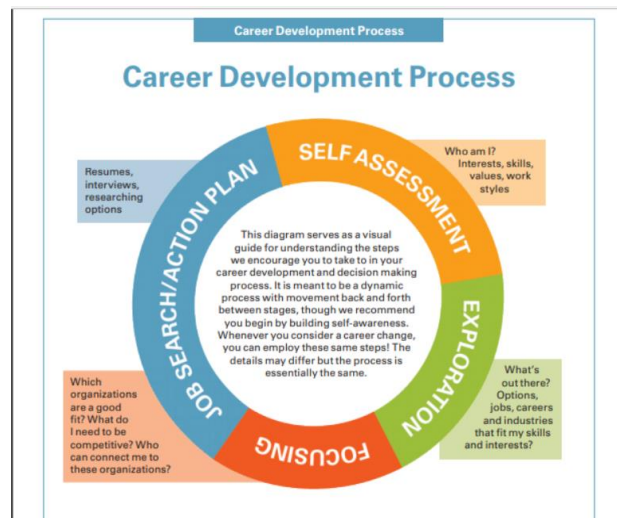


Figure 2.4: Career Development Process (Adapted from MIT Career Development Handbook 2017-2018)

2.4.2 Exposure to the companies is limited

Apart from the career days and workshops arranged by the institution to encourage networking of the students with the personnel from the companies there are no opportunities set aside for the same. On campus interviews should be initiated to maximise more networking. On campus interviews are majorly based on behaviour, which means that previous interviews reflect on future interview behaviours. (The Master of Management in Hospitality, n.d.)

2.5 Proposed System

The developed system, however, focuses more on the time and efficiency students and career development officers will have while interacting with each other. The developed system is meant to be implemented in the school's e-learning website. Both learners and career development officers can be able to access the site. The career development officers should be able to upload the job vacancies from various companies and the students are able to apply for the job vacancies. The career development officers can then take them through the various skills required before applying for the jobs. The students can then upload their CV's and

resumes in the online job application portal, thus making the application easier and more efficient.

The developed system is developed in such a way that various companies have their own portfolios and profile where they upload various job vacancies. The developed system offers a standard template for how CV's and resumes should be written. Moreover, for students who feel like writing CV's and resumes is a lot of work, students will be able to upload links to their own personal websites which can be accessed by the employer. This is an added advantage since the employers will be able to identify creative students from their personal websites.

Chapter 3: Methodology

3.1 Introduction

System development methodology refers to steps which are used in forming, planning, and evaluating the development of a system. For my developed system, the methodology implemented is prototyping. A prototype is a model or concept of what the actual system will look like. The prototyping methodology was used since it is easy to develop the system based on the requirements, it is easy to detect errors during early stages of development, time efficient, cost friendly. Moreover, prototyping encourages innovation since prototypes can be made changes to making it better therefore encouraging innovation.

3.2 Prototyping Methodology

Prototyping refers to a system development methodology in which a prototype is created, tested, and refined till a perfect prototype is developed

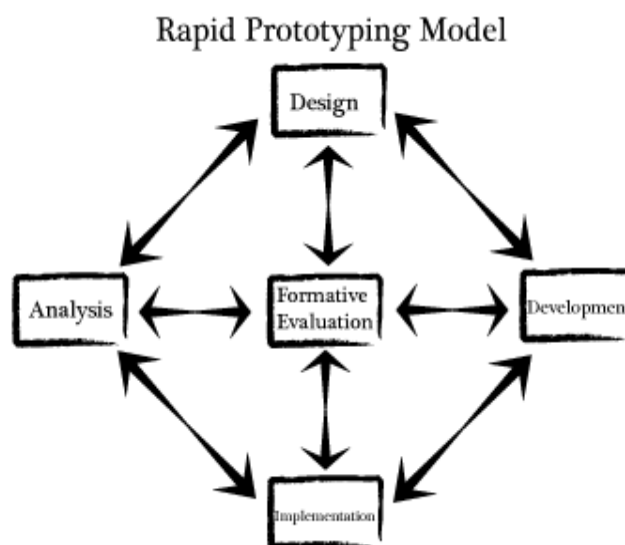


Figure 3.2: Rapid Prototyping Model (Adapted from Wikiveristy, 19 November 2019)

3.2.1 Formative Evaluation

This is where the system requirements and analysis were gathered by engaging the various beneficiaries and stakeholders to ensure that the developed system met the users' needs.

3.2.2 Analysis and Design

This is where a brief analysis and design of how the developed system works and how it was developed. The analysis includes an overview of the system and the various functions the developed system performs. It includes a brief overview of how the users interact with the developed system.

3.2.3 Prototype Development

From the brief design described, a prototype was built in accordance with the system requirements and design. The end user provided feedback if the prototype fulfilled all requirements.

3.2.4 Implementation

This is the final stage in which the developed system was tested and implemented for use and the developed system functions properly.

3.3 System Analysis

Software requirements refers to the description of features and functionalities of the developed system. The developed system uses an Object-Oriented Analysis and Design. This is because Object Oriented Analysis helps in developing better quality systems, determine project feasibility, define requirements and the design of how the developed system looks like.

3.3.1 Functional Requirements

The developed system provides several functionalities which include:

- I. Students
- II. Employers
- III. Career development officers
- IV. Job Vacancies

3.3.1.1 Students Functionalities

The students input all their relevant details into the developed system and add all the required documents to apply for the job vacancy available

3.3.1.2 Employers Functionalities

The employers can advertise all available job vacancies to the system and be can view the various applications.

3.3.1.3 Career Development Officers Functionalities

The officers can go through the various applications and notify students if there are any corrections to be made within their applications. The officers can also create the users into the system.

3.3.1.4 Job Vacancies Functionalities

The employers can advertise the job vacancies and can select the qualified candidates from the applications, students can apply for the jobs and the career development officers can review various job applications and upload job vacancies into the developed system.

3.3.2 Non-Functional Requirements

The developed System will have the following non-functional requirements:

- I. Available 24/7 since one can access it from anywhere and anytime via the school's e-learning website
- II. Ease of use - the proposed system will be easy to use since a user-friendly interface will be implemented
- III. Security- the proposed system will provide privacy, confidentiality, and authenticity
- IV. Better component design to get better performance.

3.4 Designs

System design refers to the process of defining of the modules, interfaces, and data for the proposed system to satisfy specified user needs and requirements. A few design diagrams will be drawn to ensure the success of this proposed system and they are as mentioned below.

3.4.1 Use Case Diagram

The use case diagram was designed to focus on the end users of the system and what roles the users play in the proposed system.

3.4.2 Entity Relationship Diagram

An Entity relationship diagram was drawn to show the tables in the database and their relation.

3.4.3 Database Schema

A database schema was developed to show the relationship between information and objects in a database environment.

3.4.4 GUI mock-ups

The GUI mock-ups show how the user interfaces look like in the developed system.

3.5 System Development Tools and Techniques

The developed system being web-based was created using PHP scripting language. One of the reasons for using this language is because it is faster compared to other scripting languages since it does not require many resources to run. The language has a high level of efficiency; this is because error detection is easy. It is also open source thus there is room for future evolution of the language.

MySQL database was used for storage of data, because its fast, reliable, and easy to use.

Sublime Text and Laravel framework was used. Sublime Text being a text editor allows for tabbed editing which involves multiple pages of code being corrected at the same time. Laravel

was used since the framework tools are fully integrated and there will be no need for plugins and is also easy to implement object-oriented designs.

3.6 Deliverables

3.6.1 Login Module

This module enables all users to login into the developed system.

3.6.2 Student Module

The students can gain access to the employers' profiles using this module. CV upload is also supported by this module.

3.6.3 Employer Module

The employers will use this module to manage their profiles. This includes a series of events that the companies will be offering and job vacancies.

3.6.4 Administrator Module

This module enables the administrator to register new users into the system and review various applications for the students before the submit for final approval.

3.6.5 Documentations

A system documentation is available to describe the components of the proposed system.

Chapter 4: System Analysis and Design

4.1 Introduction

In this section, we are going to provide a list of the system requirements and the various methods that were used to collect the system requirements. The object-oriented approach design was used in developing the system. Some of the system diagrams that will be included in this chapter include;

- i. Use Case Diagram
- ii. Class Diagram
- iii. Sequence Diagram
- iv. Entity Relationship Diagram
- v. Database Schema

During system design, goals of the system were well defined, and the system was developed into smaller sub systems to ensure that there is little or no errors when the system was being developed.

4.2 Requirements Gathering

The method used to gather the requirements was mainly through interviews. Interviews were conducted to get personal views from the users and their expectations of the developed system. It involved online interactions via the zoom platform whereby I was able to interview various people including students and the career development officers. This helped in acquiring first-hand information about the system requirements. Participants of the interview were randomly selected to take part in the sessions.

4.3 System Requirements

4.3.1 Functional Requirements

The developed system should provide several functionalities as listed below in table 4.1.

Table 4.1: Functional Requirements

ID	Description
FR1	The system should allow the admin to create users.
FR2	The system should allow the users (employers, admin, and students) to login.
FR3	The system should allow the admin to update jobs.

FR4	The system should allow the users to view their profiles.
FR5	The system should allow students to upload their CVs.
FR6	The system should allow admin to view various student uploads.
FR7	The admin should be able to update relevant companies and contact persons.
FR8	The system should allow the students view their applications.
FR9	The system should allow employers to view various applications.

4.3.2 Non-Functional Requirements

The developed system should provide some non-functional requirements as showed below in table 4.2:

Table 4.2: Non-Functional Requirements

ID	Description
NFR1	The system should be available 24/7 since one can access it from anywhere via the web.
NFR2	Security – the system should provide privacy, confidentiality, and authenticity.
NFR3	The system should allow users to navigate the user interface with ease.
NFR4	The system should be adequately fast for better performance.
NFR5	The system should be device friendly.

4.4 System Architecture

The system architecture describes the interaction of the different system components as shown below in figure 4.1

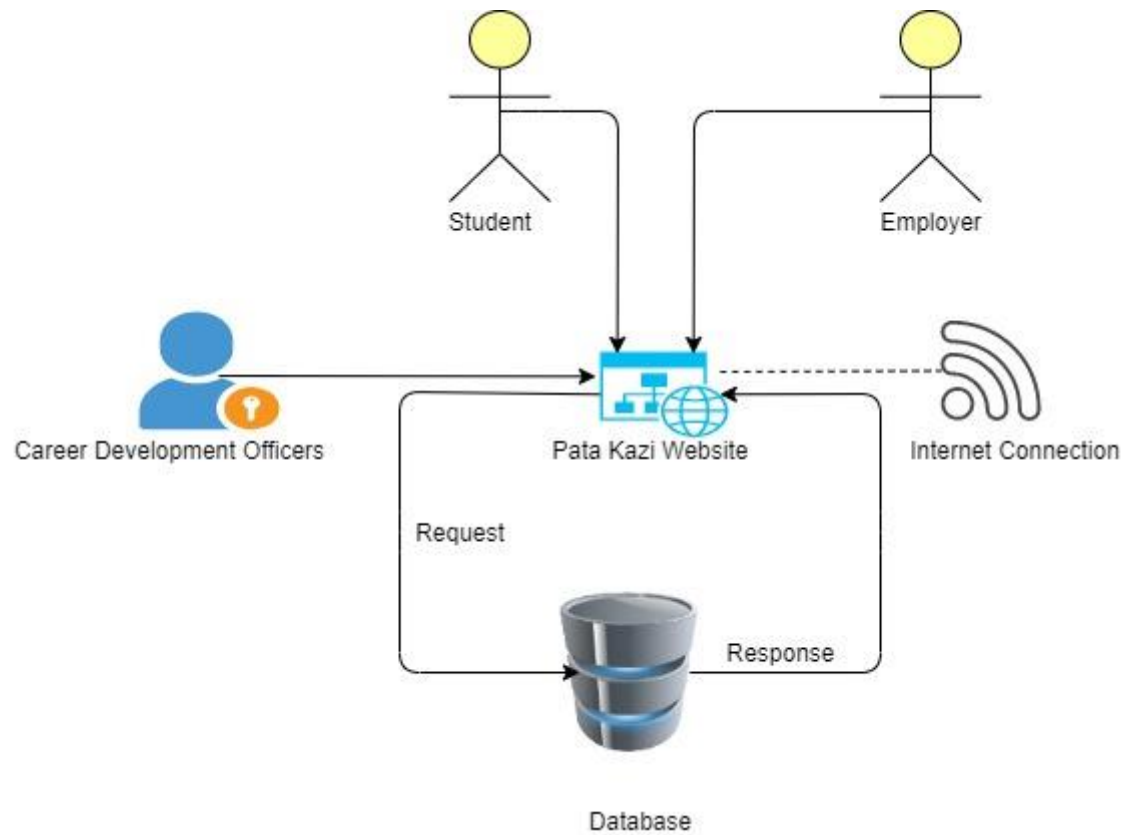


Figure 4.1: System Architecture

4.5 System Designs

The developed system was designed in an object-oriented design approach since it was easy to implement and develop the system using the various tools required.

4.5.1 Use Case Diagram

The figure 4.2 shows a use case diagram of the functions the actor should partake:

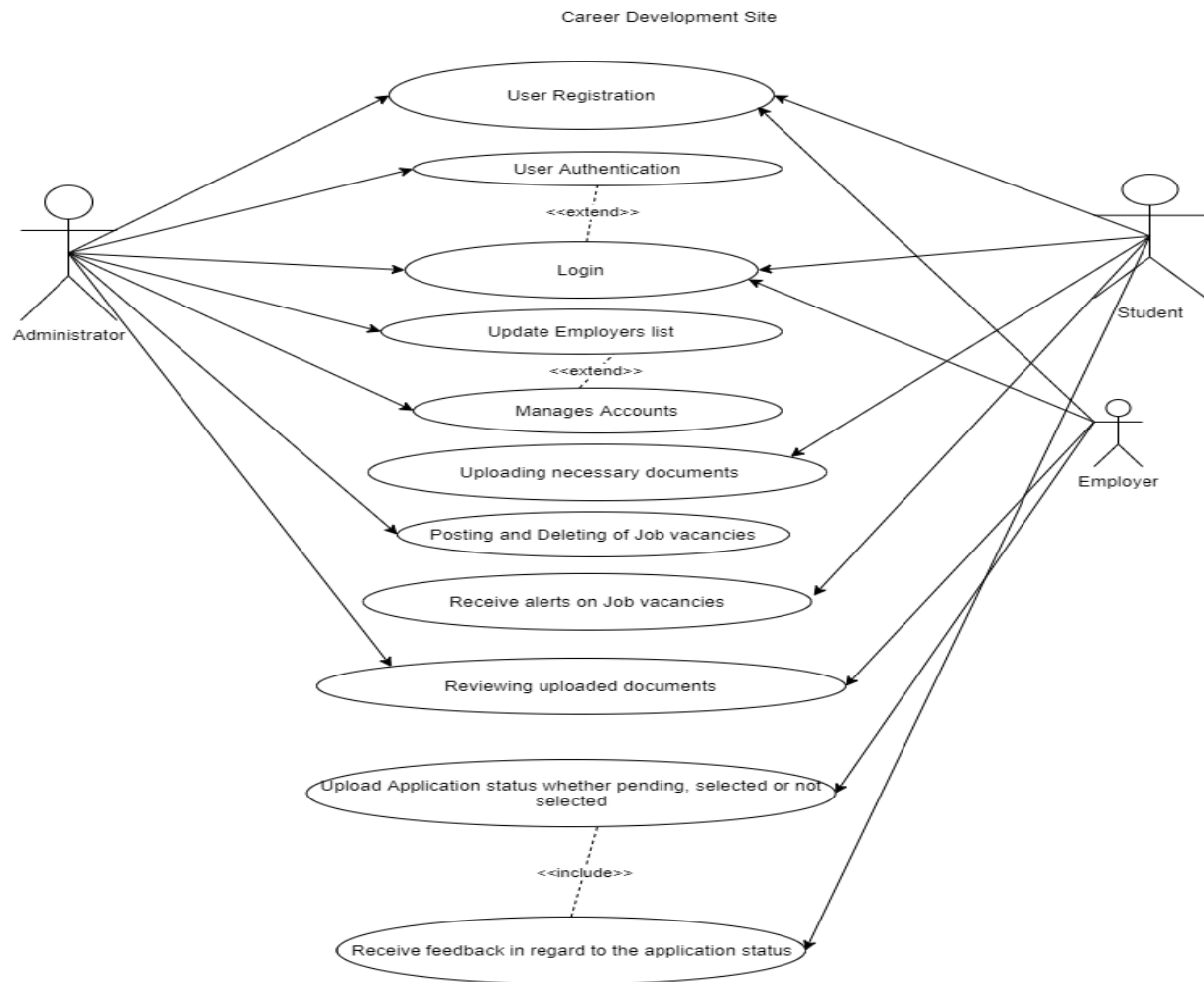


Figure 4.2: Use Case Diagram

4.5.2 Class Diagram

The below figure 4.3 shows the classes present within the developed system:

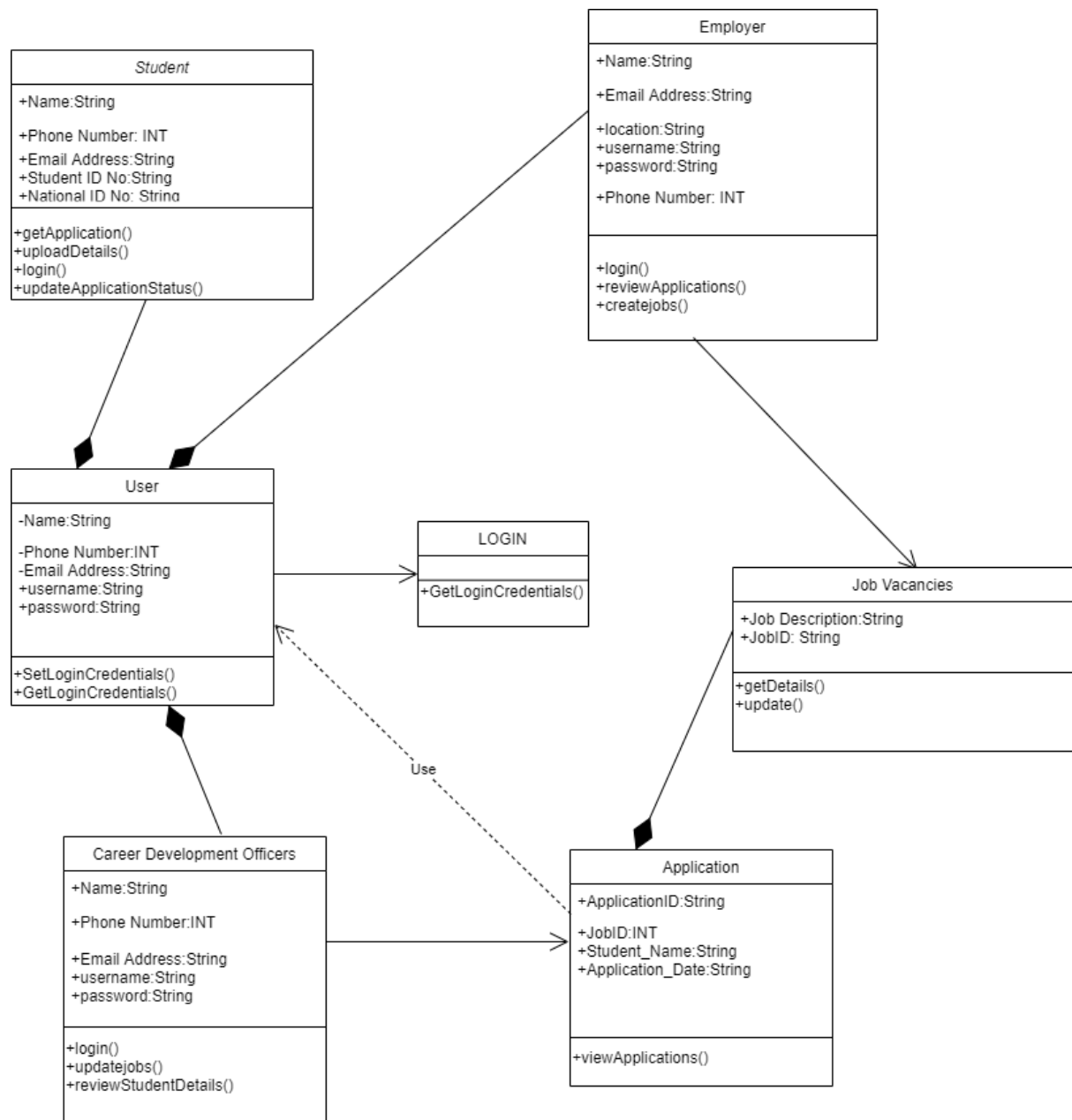


Figure 4.3: Class Diagram

4.5.3 Sequence Diagram

The figure 4.4 below shows the sequence of events within the developed system:

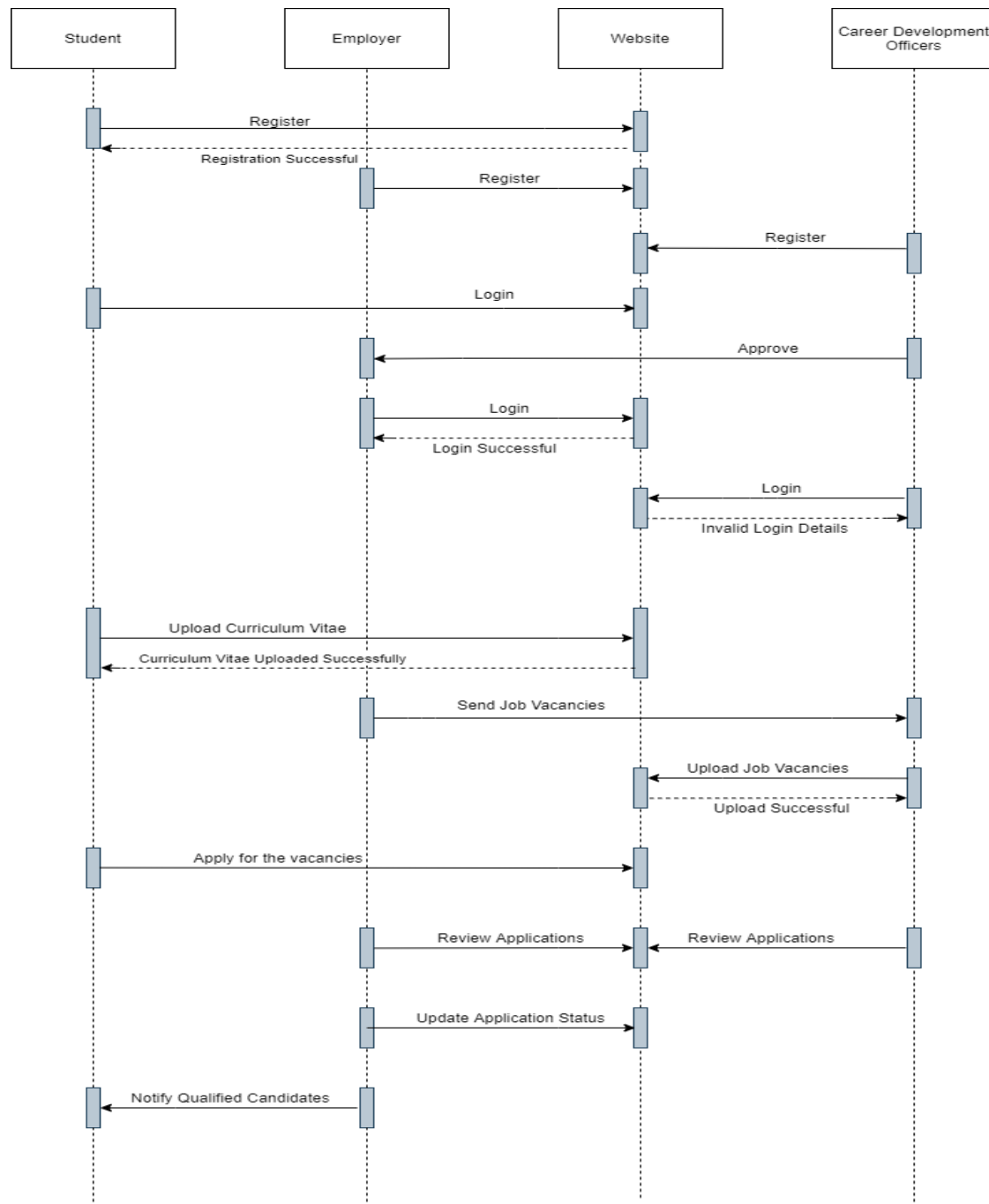


Figure 4.4: Sequence Diagram

4.5.4 Entity Relationship Diagram

The figure 4.5 shows the relationship among the different entities within the developed system:

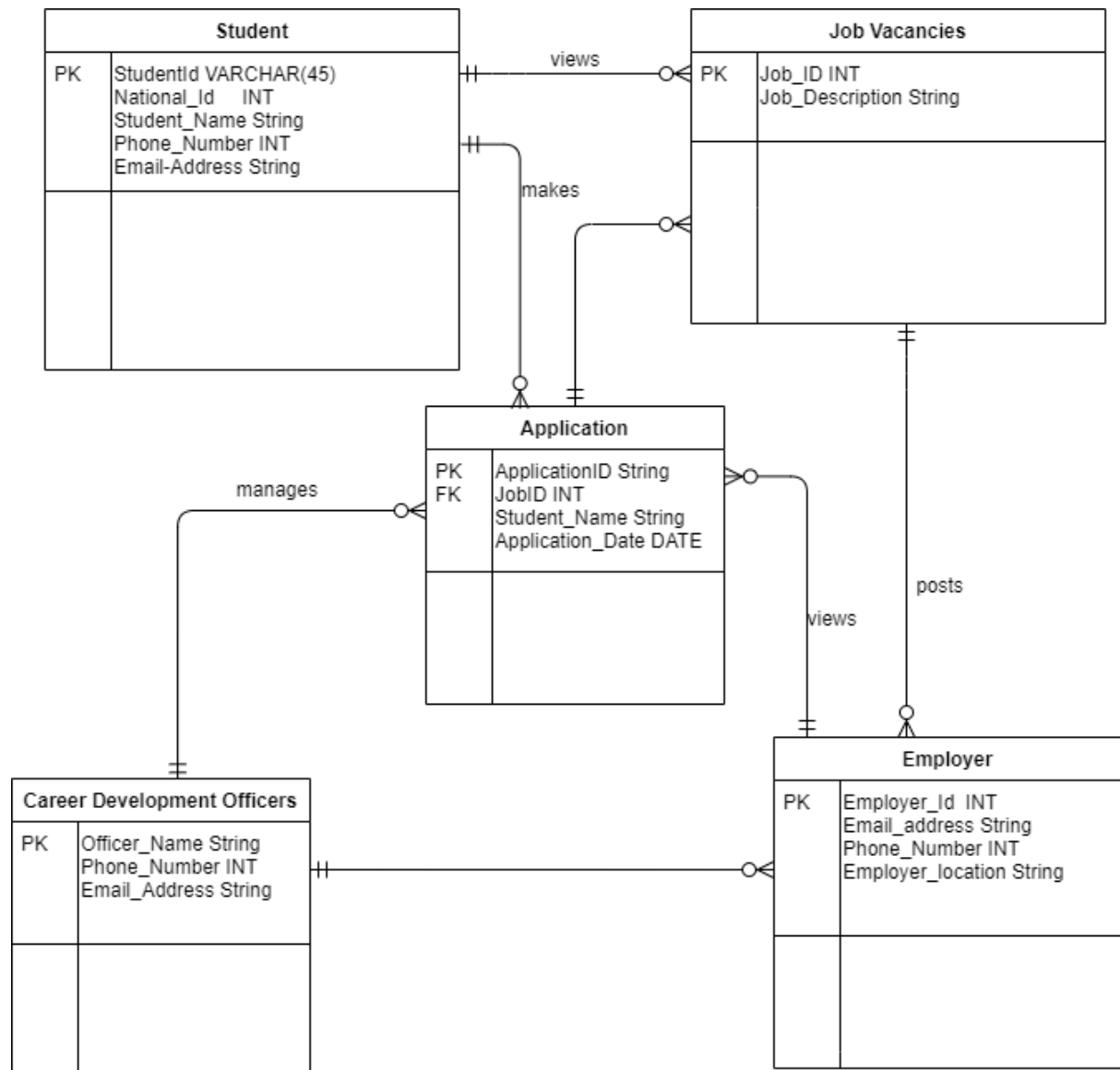


Figure 4.5: Entity Relationship Diagram

4.5.5 Database Schema

The below figure 4.6 shows the database schema of the developed system:

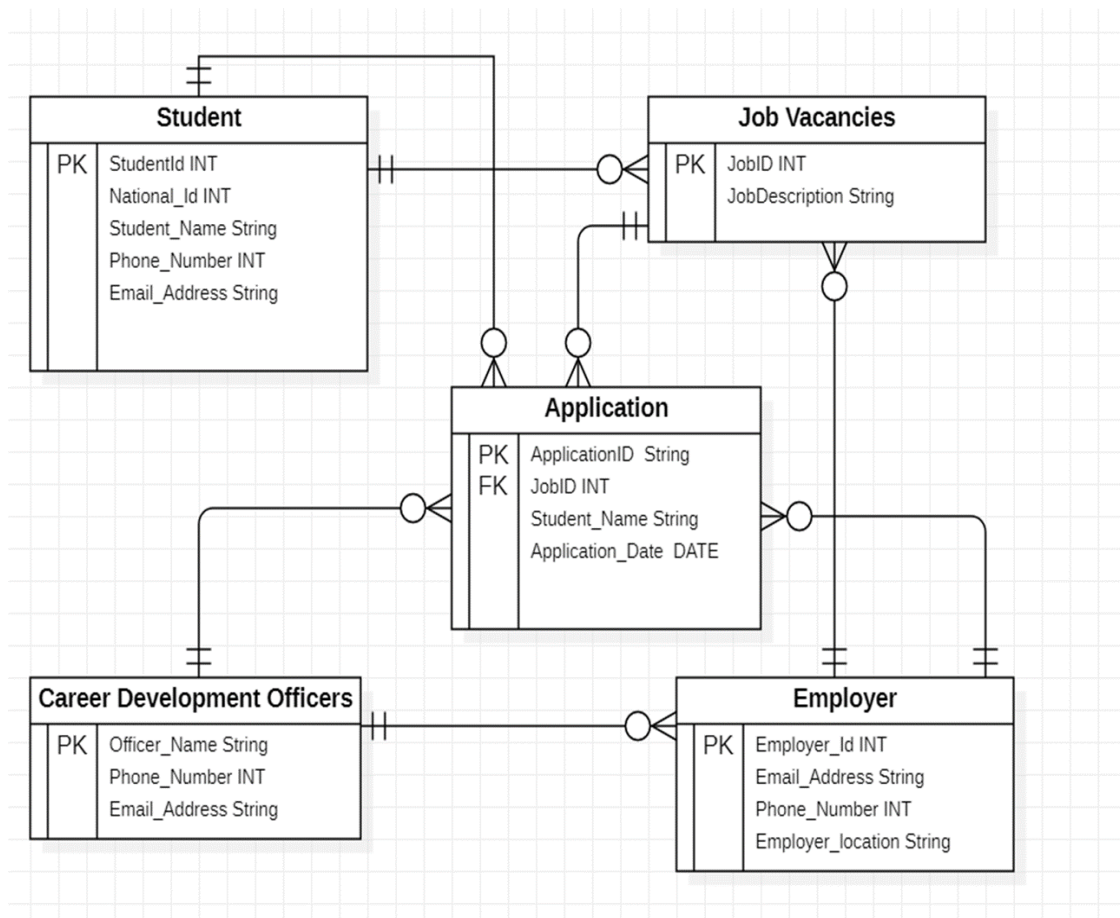


Figure 4.6: Database Schema

Chapter 5: System Implementation and Testing

5.1 Introduction

This chapter focuses more on what the system entails and how it was developed and tested. The system specifications were well defined and were all put into consideration when developing the system even though some specifications did not meet the required standards, but the system is fully functioning. This chapter also aims in detecting system failures when testing such that they can be rectified once the system is rolled out to the users.

5.2 Test Environment

The web-based system has been designed such that one can access the system via the web browser. The developed system does not require any form of external memory but utilises resources from the server where it stores all required information to run the system. The system can run on different devices if one has active internet connection and a web browser. For one to have access to the system, one should be a registered user within the system.

5.3 System Testing

This section focuses on the various tests the system has undergone and whether they have succeeded or not. It also focuses on detecting various system failures and rectifying the errors to ensure the system is functioning efficiently.

5.3.1 Test cases

Test ID	Related Requirement	Inspection Check	Pre-Condition	Test Data	Priority Level
T1	System login details verification	Does the system verify the details	All details should be specified	Data from the system's database. Email: admin@admin.com Password: *****	High
T2	Adding users to the system	Does the system add users to the system	The user should provide all specified information	Session data stored for the created user	High
T3	Adding companies to the system	Does the system add	The companies should be	Session data stored for the admin	High

		companies into the list	verified by the admin.		
T4	Uploading jobs into the system.	Does the system add jobs into the list	The jobs should be verified by the admin	Session data stored for the admin	High
T5	Applying for jobs within the system	Does the system enable users to apply for posted jobs	The jobs should be uploaded in the system by the admin	Session data stored for the user	High
T6	Viewing various job applications	Does the system allow the admin to view the various selections	The jobs should be applied by various users to be viewed.	Session data stored for the user.	Medium
T7	Uploading documents within the system.	Does the system allow users to upload documents within the system?	The system should provide a portal for uploading documents	Session data stored for the user	Medium

5.3.2 Test Results

Test ID	Expected Result	Actual result	Status	Remarks
T1	The system should allow a user to login.	The system allowed the user to login	Pass	The system login was fast.

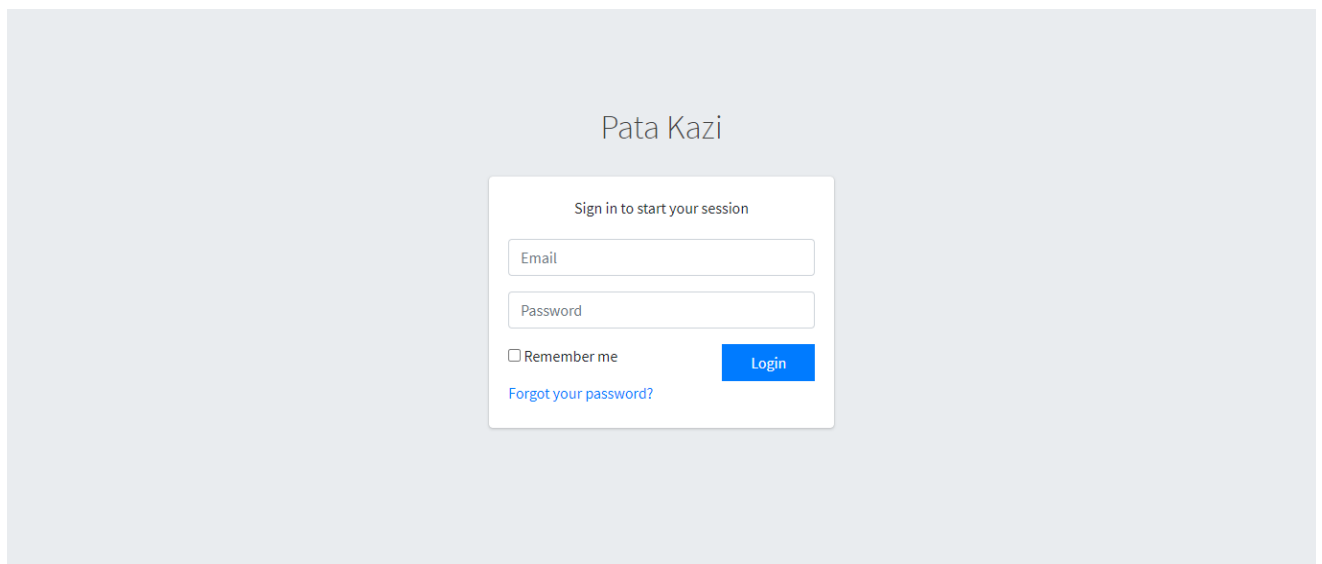
T2	The system should add users into the system	The system added a user into the database	Pass	Successfully added a new user
T3	The system should add companies into the database	The system added a new company into the view list.	Pass	Successfully added a new company
T4	The system should allow the admin to upload job vacancies into the system	The system allowed the admin to upload various job vacancies.	Pass	Successfully added new job vacancies into the view list
T5	The system should allow users to apply for various job vacancies.	The system allowed the users to apply for various job vacancies	Pass	Users successfully applied for the various job vacancies.
T6	The system should allow the admin to view various job applications.	The system allowed the admin to view the various job applications.	Pass	The admin was able to view the various applications.
T7	The system should allow users to upload specified documents into the system.	The system allowed users to upload their documents in the required portal.	Pass	The users were able to upload the documents in the specified portal

5.4 System Implementation

During the start of the development of the system, there was observation and identification of various actors of the system. These actors identified were the Career Development Officers(admin), students and employers(users). The next stage of development was the identification of the various modules to be implemented in the system to give a fully functioning system. Photos of these various modules will be uploaded at the end of this section. The development of this system was done using PHP and Laravel as the framework since it is a web-based system therefore it was easier developing the system using the above-mentioned tools. The different design diagrams made it easier to design the system and identify the process of flow of information within the system. The various system requirements were identified and implemented into the system. Using the prototyping methodology, the modules were easily developed and tested as prototypes to check for any errors before being linked as one to come up with the system. There was also development of the CRUD functionality within the system whereby the admins can add, update, view and delete jobs and users. The students can upload and delete their documents and employers are able to view the job applications. Below represent various figures of the different modules

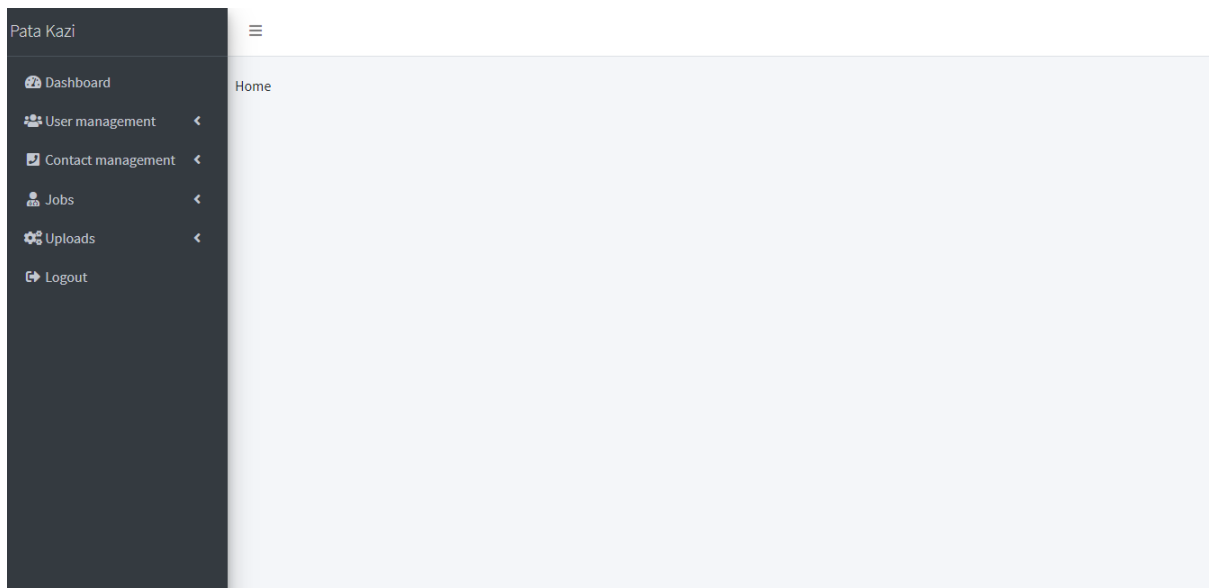
5.4.1 Login Page

Once the admin has created the users and assigned them login credentials, the user is able to login into the system by providing their email address and password.



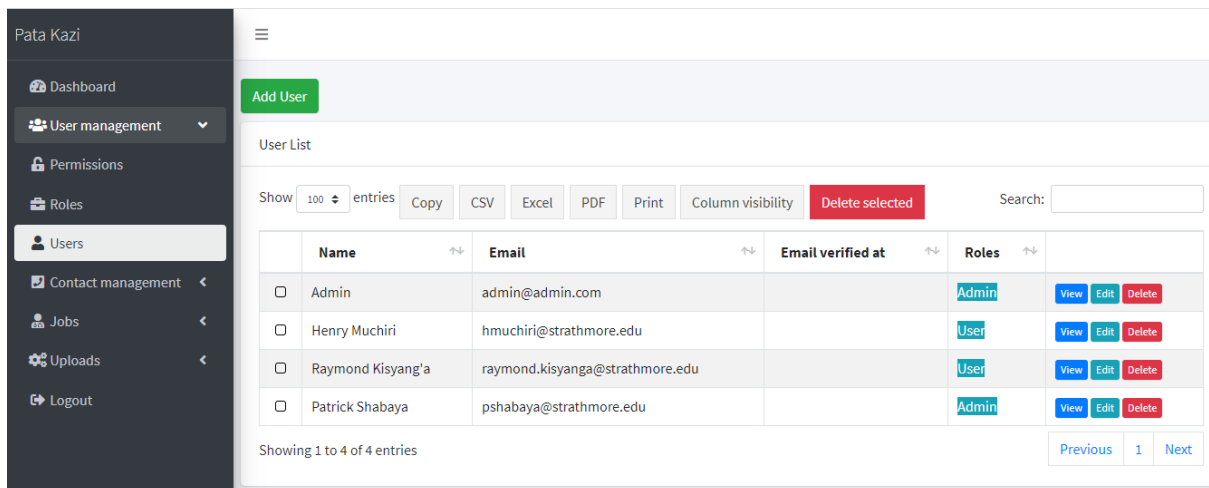
5.4.2 Home Page

Once the users have logged in, they are able to view the home page whereby they can access different portals in which they want to access.



5.4.3 User Management Page

In this module, the admin can create users and assign them as admins or users and provide them with valid login credentials.



5.4.4 Company Management Page

In this module, the admin can upload the various companies that are valid, and students can apply jobs from.

Pata Kazi

Dashboard

User management

Contact management

Companies

Contacts

Jobs

Uploads

Logout

Add Company

Company List

Show 100 entries

Copy

CSV

Excel

PDF

Print

Column visibility

Delete selected

Search:

	Company name	Address	Website	Email	
<input type="checkbox"/>	Strathmore Univeristy	59857-0200	www.strathmore.edu	info@strathmore.edu	<div>View</div> <div>Edit</div> <div>Delete</div>
<input type="checkbox"/>	Safaricom	66827-0800	www.safaricom.co.ke	info@safaricom.co.ke	<div>View</div> <div>Edit</div> <div>Delete</div>
<input type="checkbox"/>	Oracle	8447	www.oracle@gmail.com	oracle@gmail.com	<div>View</div> <div>Edit</div> <div>Delete</div>
<input type="checkbox"/>	Strathmore	8447	strathmore.edu	strathmore@edu	<div>View</div> <div>Edit</div> <div>Delete</div>

Showing 1 to 4 of 4 entries

Previous

1

Next

5.4.5 Contact Management Page

In this module, the admin can update details of all contact persons from different companies.

Pata Kazi

Dashboard

User management

Contact management

Companies

Contacts

Jobs

Uploads

Logout

Add Contact

Contact List

Show 100 entries

Copy

CSV

Excel

PDF

Print

Column visibility

Delete selected

Search:

	Company	First name	Last name	Phone 1	Phone 2	Email	Skype	Address	
No data available in table									

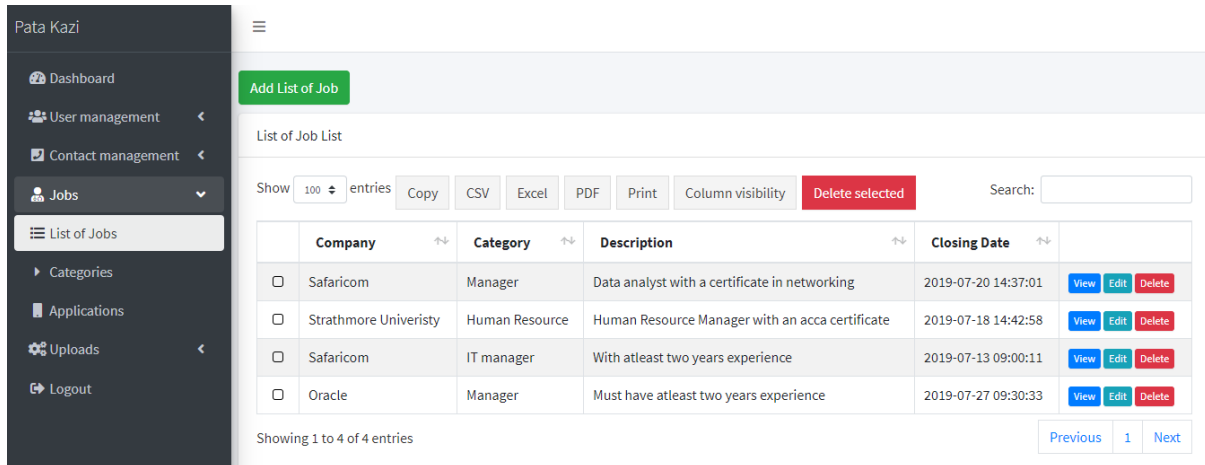
Showing 0 to 0 of 0 entries

Previous

Next

5.4.6 Job Page

In this module, the admin can update the list of jobs eligible for application by the students.



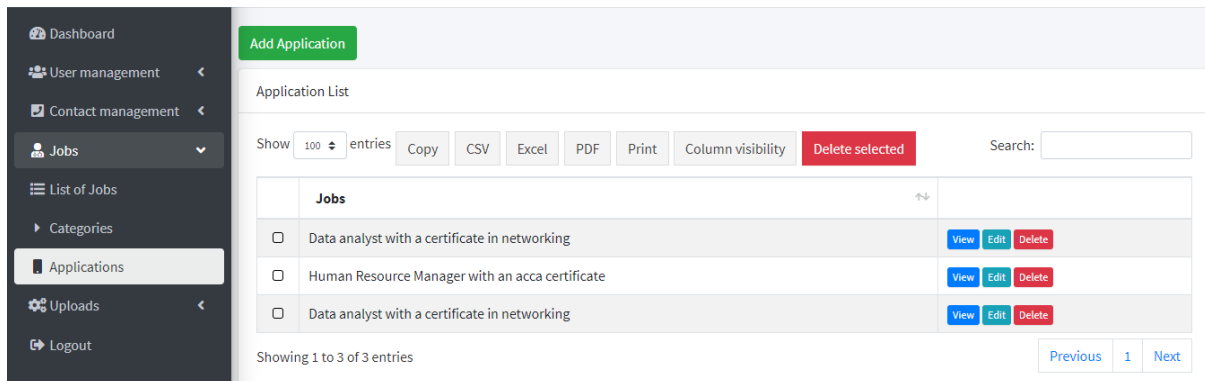
The screenshot shows the 'Job Page' interface. On the left is a dark sidebar with the user name 'Pata Kazi' and a menu including Dashboard, User management, Contact management, Jobs (selected), List of Jobs, Categories, Applications, Uploads, and Logout. The main content area has a header with 'Add List of Job' and a sub-header 'List of Job List'. Below this is a toolbar with 'Show 100 entries', 'Copy', 'CSV', 'Excel', 'PDF', 'Print', 'Column visibility', 'Delete selected', and a search bar. The table has columns: Company, Category, Description, and Closing Date. It contains four entries, each with a checkbox, a 'View' button, an 'Edit' button, and a 'Delete' button.

	Company	Category	Description	Closing Date	
<input type="checkbox"/>	Safaricom	Manager	Data analyst with a certificate in networking	2019-07-20 14:37:01	View Edit Delete
<input type="checkbox"/>	Strathmore Univeristy	Human Resource	Human Resource Manager with an acca certificate	2019-07-18 14:42:58	View Edit Delete
<input type="checkbox"/>	Safaricom	IT manager	With atleast two years experience	2019-07-13 09:00:11	View Edit Delete
<input type="checkbox"/>	Oracle	Manager	Must have atleast two years experience	2019-07-27 09:30:33	View Edit Delete

Showing 1 to 4 of 4 entries

5.4.7 Application Page

In this module, the students can apply for jobs that have been listed.



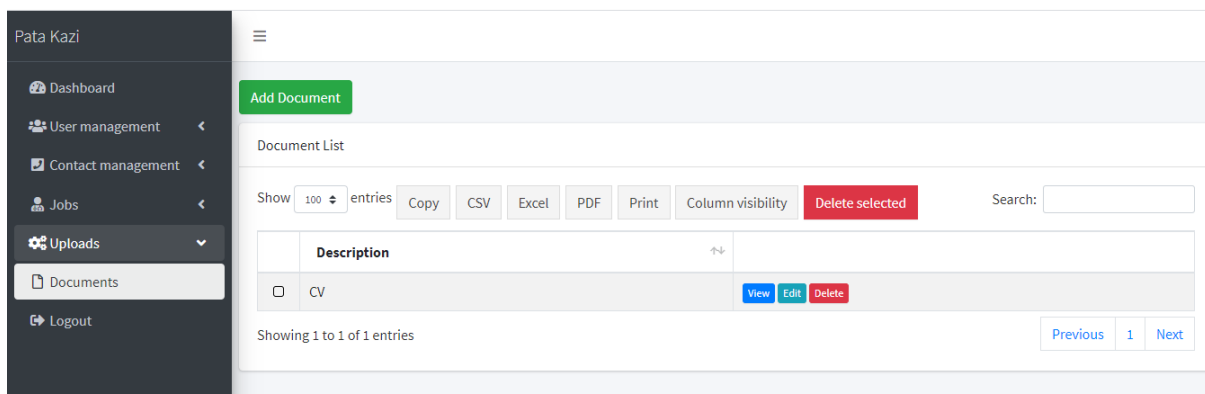
The screenshot shows the 'Application Page' interface. The sidebar is identical to the previous page. The main content area has a header with 'Add Application' and a sub-header 'Application List'. Below this is a toolbar with 'Show 100 entries', 'Copy', 'CSV', 'Excel', 'PDF', 'Print', 'Column visibility', 'Delete selected', and a search bar. The table has a column 'Jobs' and contains three entries, each with a checkbox, a 'View' button, an 'Edit' button, and a 'Delete' button.

	Jobs	
<input type="checkbox"/>	Data analyst with a certificate in networking	View Edit Delete
<input type="checkbox"/>	Human Resource Manager with an acca certificate	View Edit Delete
<input type="checkbox"/>	Data analyst with a certificate in networking	View Edit Delete

Showing 1 to 3 of 3 entries

5.4.8 Document Page

In this module, the students can upload their CV's and other required documents within the system.



The screenshot shows the 'Document Page' interface. The sidebar is identical to the previous pages. The main content area has a header with 'Add Document' and a sub-header 'Document List'. Below this is a toolbar with 'Show 100 entries', 'Copy', 'CSV', 'Excel', 'PDF', 'Print', 'Column visibility', 'Delete selected', and a search bar. The table has a column 'Description' and contains one entry, 'CV', with 'View', 'Edit', and 'Delete' buttons.

	Description	
<input type="checkbox"/>	CV	View Edit Delete

Showing 1 to 1 of 1 entries

Chapter 6: Conclusion, Recommendations and Future Works

6.1 Introduction

The aim of this chapter is to summarize and discuss what the system has been able to achieve at the end of its completion. We shall also discuss what the system has not been able to achieve and make future recommendations of what the system can entail to make it more user friendly and efficient. In the discussion section of this chapter, we will look at how the system was developed and the various modules the system and the various functions they have achieved so far in the completion of the system. For the conclusion, we will have a summary on the system and discuss whether it is beneficial to the society or not.

6.2 Discussion

As earlier discussed, this section will entail an analysis of the developed system. The system has various actors which include the Career Development Officers(admins), students and employees(users) who will have various modules in which they will interact with. For the Career Development Officers they will be able to view the admin module in which the module will have various functionalities. Some of these functionalities on this module include user management where the admin can decide to add or remove a user, contact management where the admin will be able to add the various contact persons from the employer's side and their various companies, application management where the admin will be able to upload various jobs and view various applications made by the students.

For the user's module, the student's module will also have their own view whereby they can view the various job uploads, upload their job applications and a status bar to show them if they have been accepted or not. For the employer's module, they will be able to view various job applications they have received and choose whether to accept or reject the applications. Employers will be able to also notify students and receive their contact details from the system to set interview dates with them.

As per the completion of the system, it is reasonable to comment that the main purpose of the system has been achieved which is reduce the paperwork in the Career Development Office and a transparent and efficient system that can be accessed from anywhere by the students therefore reducing the stress of students having to send emails every now and then to the Career Development Officers.

6.3 Conclusion

Trends in the job industry and the education sector has shown that there has been an increase in jobs of late, but people lack the various tools to apply for these jobs. It is also evident that higher educational institutions are coming up with systems to aid in application of these jobs after students have graduated. Therefore, the developed system is vital and efficient for Strathmore university to help students apply for these jobs even though their other various ways students can apply for these jobs by sending emails or by visiting the career development office and submitting their applications.

Regarding the main problem in applying, managing, and tracking of these applications, adoption of the web-based application system will be efficient whereby students will be able to view their various applications and the career development officers will be able to manage them and keep a track of the applications which will reduce the amount of paperwork in the career development office and losing of applications in the office.

The web-based application system is of great significance to Strathmore University since it shows that Strathmore cares for the student's career welfare by providing an efficient system to students to apply for these jobs. The system is also easy to use and user friendly therefore saving on time and cost. It also aids in protection of the environment since applications will be made online therefore less paper will be used meaning the rate at which trees will be cut is minimal. In conclusion, the adoption of the web-based application job system for Strathmore university will be efficient and significant within the institution.

6.4 Recommendations

For the web-based application system to work, the devices used by the users of the system need to be connected to the internet while accessing the system. This is because the system is online therefore a stable internet connection is required. In addition, the system should be implemented in the institution's website such that it can be accessed from anywhere and not necessarily within the institution's premises.

6.5 Future Work

The system is a functional system as per the process of job applications, but a lot of aspects and functionalities can be added by future developers through the interaction of the system. Some of the aspects of the project have been fulfilled by the system but not all areas have been addressed due to the scope of the project. Therefore, the future work to come up with a better system can address issues such as

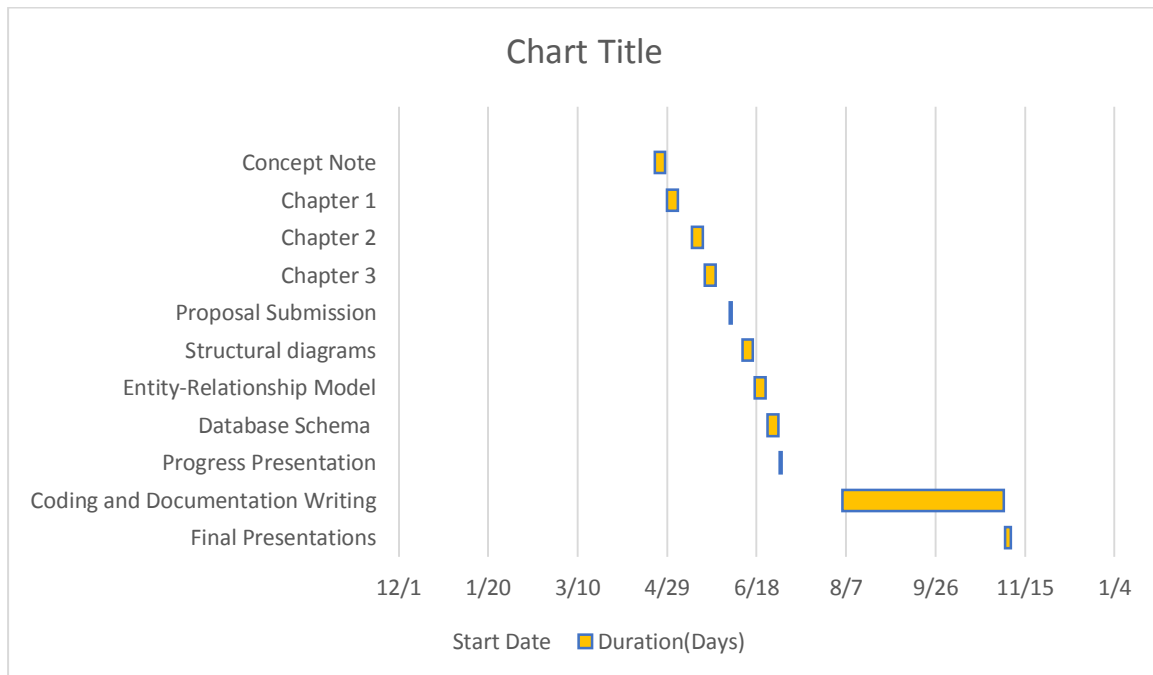
- i. Verification of employers within the system instead of the career development officer doing it manually

- ii. A medium of communication between the students and the career development officers whereby the students can address their issues and how the job is taking them or even if they got better opportunities.

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Appendix A: Timeline of Activities



Appendix B: Screenshot of an Interesting Code

```
$.extend(true, $.fn.dataTable.Buttons.defaults.dom.button, { className: 'btn' })
$.extend(true, $.fn.dataTable.defaults, {
  language: {
    url: languages.{{ app()->getLocale() }}
  },
  columnDefs: [{
    orderable: false,
    className: 'select-checkbox',
    targets: 0
  }, {
    orderable: false,
    searchable: false,
    targets: -1
  }],
  select: {
    style: 'multi+shift',
    selector: 'td:first-child'
  },
  order: [],
  scrollX: true,
  pageLength: 100,
  dom: 'lBfrtip<"actions">',
  buttons: [
    {
      extend: 'copy',
      className: 'btn-default',
      text: copyButtonTrans,
      exportOptions: {
        columns: ':visible'
      }
    },
    {
      extend: 'csv',
      className: 'btn-default',
```