# Chapter 3: Design.

This phase of the proposal is intended to provide details on the system key features, structure, criteria for success and other major deliverables to be delivered upon its release.

## 3.1: Methodology Approach.

### 3.1.1: Introduction;

Methodology approach presents the discussion on the research methodology of the study, the subjects, the research techniques and instruments and the procedure of data gathering together with analysis of the collected data.

### 3.1.2: Research Design;

This segment of the chapter describes the method of research implied in the research proposal, in this case being **experimental research approach** bearing the fact that the investigation seeks results emanating from an online job matching system in the employment industry.

### 3.1.3 Target Population and Sample Size;

The research will derive information from 50 individuals, half the population being job seekers in the industry and the remainder being select individuals from companies seeking potential employees. This will enable the study to achieve the purpose of bringing out the need for the proposed system in both the job seekers and the employers and how its use within the employment process will be of influence to the job industry as a whole.

Job seekers will give information pertaining to their previous experience in job searching prior to the introduction of this system and their new experience after its introduction. Employers, on the other hand, will be questioned on how the traditional employment processes have been of efficiency to them before the system is introduced together with any changes that come in as a result of the system being introduced.

### 3.1.4: Data Collection;

The specific research instruments for data collection are essentially **questionnaires** and **interviews**. This will enable the investigation to derive information from both the job seekers and employers in the industry thus a need for separate questionnaires for the two sets of respondents. These questionnaires also help find out the elements required for the system to be of efficiency and efficacy to both target parties. These elements are:

1. **Data:** the system will require adequate database size to cater for potential job seekers as well as employers who wish to use the system to seek suitable jobs and employ the right employees respectively.
2. **Platforms:** by carefully researching on the most adapted platforms by both target parties, the investigation should be able to deduce which party will use the system on which platform.

## 3.2: Analysis.

### 3.2.1: Introduction;

This part provides a detailed analysis carried out on data collected during the investigation for the proposed system.

### 3.2.2: Data;

### 3.2.2.1: Job Seekers;

Initial storage size is quantified to 750 gigabytes. This will best suit initial users of the system as individual data requirements only occupy small storage space out of the proposed volume. Major elements of data required are collected during registration to the platform (credentials) and documents that may be inquired for upload to the system to facilitate verification and authentication of what information the job seeker provides in the system. This may include government documents & educational documents e.g., certificates.

### 3.2.2.2: Employers and companies;

Initial storage size for the employers’ end is equated to 2 terabytes. This is the proposed storage size since, inclusive of information pertaining to the company, applicants seeking positions in a certain company would be redirected by the system to that company’s specific directory thus the job seeker’s data and information from the applicants’ database would be replicated to the system’s employers’ end under this particular company, thus a constant increment in data stored in the database allocated for the employers’ end.

### 3.2.3; Platform;

### 3.2.3.1: Job Seekers;

Analysis on data collected pertaining to this segment has indicated that most job seekers use mobile devices in their day-to-day errands that they occupy themselves in, prior to formal employment. The use of mobile devices has facilitated proposal that the system be released to mobile device platforms. Deeper analysis of the data has revealed that 68% of the target population (17) uses on-hand mobile devices, majorly smartphones. Since the system targets close proximity to the job seeker and access at any time regardless of location, it shall be released on the two major platforms running on these on-hand mobiles devices, i.e., Android operating system and Apple iOS, with priority being on Android OS. The pie chart provided indicates the platforms’ market share amongst our sample size;

Figure 1; Mobile OS distribution

### 3.2.3.2: Employers and companies;

The system will be accessed via the web. Web pages will be created to give employers access to the system from their end and enable them to cater for potential applicants seeking for positions in their companies.

## 3.3: Design.

### 3.3.1: Introduction;

This part provides the design aspect of and explains the structural functioning the system’s software developed for the platforms used by both target parties. For initial release, the system will be released on Android for the job seekers and as a website for employers, optimized for PCs and Macs.

### 3.3.2: App;

### 3.3.2.1: Structural Functioning;

**Foreground;**

Via the app, job seekers will initially be welcomed by an introduction phase that explains the app’s function in a nutshell. Furthermore, to enhance dependability on the app, we shall provide a list of companies associated with the service in seeking employees and this suits the job seekers in that availability of potential companies for their skillset, thus enhancing their need for the app as well as potential job seekers around them individually.

Using the app will require the job seeker to sign up and register for the service. Initial registration will require a username/email address along with a password, to be used as login credentials also, when opening up the app. Requirement of further services e.g., applying for an available position in a company, will require the seeker’s phone number and national ID card or driving license. Having done this, the system will have a segment where it displays the applicants under their line of careers for companies to pick as they peruse amongst potential job seekers.

**Background;**

Upon the user’s registration, the system picks up this initial data and stores it in the job seekers’ database. Retrieval of this data occurs on their end when they log in to the app on a new device or log out and log in back to the app on the same device.

Since most users will find potential companies that they want to work for, the software owners will liaise with a user to send mails of only one of their government documents, this being their original birth certificates, or present themselves with a copy of this document to our nearest branches within their localities, if available.

Information targeted for use during verification is name, year and country of birth. It shall be required that a user be at least 21 years of age to be able to be verified and gain access to further services provided within the app. 21 has been selected as the qualification year to be able to cater for potential employees who may have the will to seek a job from an education level as low as a diploma.

Applying for a position in a certain company directs the server to place job seeker’s data under storage for this particular company, to assist in collection and assessment from the company’s end, on the job seeker’s worth to get the job available.

Illustration;

**User data retrieved**

**Data**

Job seekers DB

**Employer**

**User**

### 3.3.2.2: Physical design;

This section gives diagrams of the application to be used for the system.

Figure 2; Sign-in page

title

title

Kindly fill the fields

Last name

First name

Phone

Email

username/email

Address 1

password

Address 2

login

Country

Code

Sign Up

Not Registered?

Register

Figure 3; Registration page

search button

title

Figure 4; Main page

menu

content tab(s)

[content]

[content]

[content]

[content]

### 3.3.3: Website;

### 3.3.3.1; Structural Functioning;

**Foreground;**

The system’s side meant for the employer will be accessed via browsers on both PCs and Macs. Initial stages of the website will require a company’s senior manager, or any subordinates put in charge by this manager, to log in to their company’s profile which will already have been created and established in the system as a result of liaising between the company and the software owners. The senior manager shall have their accounts created during the liaising between the company itself and software owners while any subordinate authorized to look over the system will be required to create an account under this manager. This will enable multiple subordinates to attend to multiple applications sent by job seekers should the company be high in value and hiring opportunities. The subordinate, in order to gain access to the applications via the senior manager, will be verified and this can be shortened to as far as the senior manager notifying the software owners of new sub-managers, prior to their registration.

However, the software owners reserve the right to ask for relevant data pertaining to the sub-manager’s relationship with their senior managers and the company itself, mainly position in the company itself.

Hiring the applicant requires the attendants to indicate that the applicant has been hired thus the system indicates the applicant as available for hire or hired.

**Background;**

Having received a job seeker’s information applying for a position in a particular company, the system notifies the respective company of any new applicants. These notifications are released to the company’s attendants once they access their accounts.

The attendant (senior manager/sub-managers) assesses the applicants skillset and level and upon liaising and physical contact with them, they may choose to hire them or push the opportunity back.

Illustration;

**Applies for job in certain company**

**Sends notifications**

**User**

**Company**

System

### 3.3.3.2: Physical Design;

The diagrams below give the basic physical appearance of the web pages to be provided for the employers’ use.

login

password

username/email

title

Figure 5; Start page

title

content tab

content tab

content tab

Figure 6; Main Page