

# Software Requirement Document

for

## Online Job Portal



# 1. Project Profile

## 1.1 Project Background

Talented and hardworking youths within Mizoram are not getting adequate job opportunities due to limited access to job information and the absence of a unified platform to cater job seekers and employers. Finding the right job and finding the right candidate is equally challenging for both job seekers and employers without the unified job portal. Now the internet has made an enormous impact on knowledge management and information dissemination all over the world. The internet has changed the way of looking for job vacancies and searching for right and qualified candidates through the development of job portals. Job portal system has made job searching processes easier.

This project deals with the design and development of an Online Job Portal System. The purpose of this project is to develop a web and mobile based system for users that will eliminate or reduce manual work in job searching process and also reduce cost and time spent when advertising job vacancies. It allows job seekers to register online, search and establish communication for employment and also allows employers to register online, post job vacancies and look for suitable candidates. The system will be a powerful, flexible and easy to use software which will be developed to provide a common platform for interaction to address the communication gap between job seekers and recruiters. The system is to make the job searching processes simpler and easier.

Mizoram is a developing state and so is the change in technology. Due to this change in technology job recruitment must also change because the use of the internet is also frequent then developing an online job portal will be of great impact to job seekers and employers. The system will be reliable because most youths are ever using the internet for browsing and entertainment. The online job portal will use the internet to advertise and find the best people for jobs. The system is to be used by employers to improve efficiency in the employment sector and it will provide jobs catalogue and information to members or users and help them decide on which jobs to apply.

## 1.2 Problem Statement

In Mizoram employment has been made manual in the past many years up to this current situation where everything has totally changed due to technological changes. The traditional mode of employment takes a lot of steps from advertisement, application, verify application and conduct interviews, therefore, consuming a lot of time. Currently, in Mizoram where technology is also advancing, most job recruitment processes have changed though some problems still occur. The problems with this current system include the following:

1. It is not easy for the job seeker to apply for a specific job he/she needs because the job description sometimes does not cover up everything.
2. It is expensive for the job seeker to submit the application form in person to the recruiters office.
3. In some cases it might not be efficient because not everybody is conversant with recruiters websites and advertisements that exist therefore only few applicants can read the post and apply for the job.
4. Paperwork still exists as the application form is downloaded instead of being submitted online.
5. There is no chance of uploading Curriculum Vitae (CV) and also the members cannot update their profile.
6. The advertisement itself is costly especially when done through print media(newspapers) therefore the publication of the job adverts will only last for a very short time and in that case, few people will have seen the job vacancy

## 1.3 Objectives of the project

The main objective of the project is to to increase the employment rate within the state by establishing a standardized and state of the art platform for young job seekers and employers.

The broad objectives of the project include:

- IT enabling of employment processes within the state
- To provide easy access to employment exchange to common man, especially the people doing daily work/migrant worker.
- Development of Web based Job Portal
- Development of Android and iOS applications for both job seekers and employers
- Creation of skill and professional enhancement programme for job seekers
- Standardization of recruitment process
- Improving job and service quality by implementing employee rating platform for employers
- To establish a common platform for both job seekers and employers

## 1.4 Expected Project Outcome

1. Effectively and continuously assessing demand of skills in labour markets, local in other States
2. Guiding youth visiting the Centres or by outreach to schools/colleges, various training

- institutions, about the training, on-the-job training, job opportunities, etc., according to their aptitude and potential,
3. Connecting youth and other job seekers with jobs through portal, job fairs and other possible interface with employees.
  4. Mobilizing employers and other placement agencies to connect to MY Job Portal for meeting their HR requirements

## 1.5 Solution Deployment Architecture

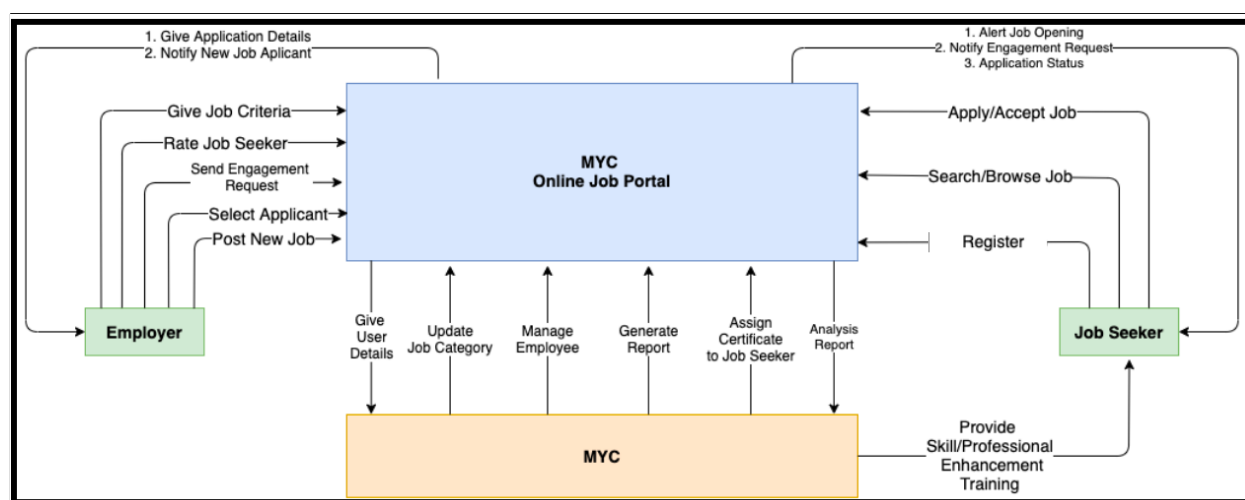


Fig 1: General Solution Architecture

Streamlining the front end, channels of delivery, service components and the 'To-Be' process will ensure a comprehensive service delivery mechanism for a more efficient delivery of services to both the job seekers and employer. The proposed architecture (fig above) has been detailed below :

### (a) Web-based and mobile-based application

The system will be designed to be accessible through a web browser for both employers and job seekers. A mobile application (Android and iOS) will be developed for job seekers as well as for the employer.

### (b) Web Portal (Front End)

- **User Module:** Homepage will be designed in such a way that it showcases the services offered by MYC and will have a very user-friendly navigation system. There will be links to most of the inside pages on the homepage to allow one-click navigation. The homepage will have the following sections:

- Job Search: This section will be used by the job seekers to search and filter out jobs based on Keyword(Textbox), Category(Dropdown), Subcategory(Dropdown), State(Dropdown), City/Town/ Village (Dropdown).
  - Registration/Login : The link to register/login will be placed on every page of the website including the homepage to facilitate one-click access.
  - Partners Panel: There will be a space to show/display MYC partnership company on the homepage that will be manageable from the admin panel.
- *Employer Registration Module:* Employers will be able to register using this module. It will be accessible from the homepage and will have multiple stage registration forms to collect the employer details. Each employer registration will be validated by means of password
  - *Job Seeker Registration Module:* Job seekers will be able to register using this module. This module will be accessible from the homepage and will have multiple stage registration forms to collect the job seekers details. They will be given an option to subscribe to one or several job criteria/s and get notified to new job listings either through email or SMS.

**(c) Job Seeker**

- *Profile Module:* The job seeker can edit the details provided for the profile during registration to keep it up to date.
- *Resume Module:* This module allows job seekers to enter their resume in a prespecified dynamic resume form which will be updated from time to time. Alternatively, the job seeker may upload their resume in the form of a pdf from the local system.
- *Application Module :* This module will show the status (Pending/ Considered/ Rejected) along with details of all the job applications submitted by the job seeker.
- *Badge Module:* Once job seeker is verified, verified badge will be applied to the user profile. Document uploaded by job seeker relating to educational qualification, certification course, training course, etc will be summarily verified by MYC to check for authenticity. Once these documents are verified, users will attain badges in this regard. This will enhance the user profile visibility and credibility.

The job seeker also has the option to search jobs wherein the search can be made on the following parameters :

- Location.
- Work Experience.
- Role / Designation.
- Salaries.
- Job Type.
- Technical / Software Skills / Inter-personal Skills.
- Academic Qualification.
- Time based (eg 3 days labour job).

The job seekers will have an option to link the above search with their personal profile.

#### (d) Job Provider / Employer Module

- *Profile Module* : The employer can edit the details provided for the profile during registration to keep it up to date. The employer may upload images and videos about their company/organization to attract job seekers
- *Job Management Module*: The employer can add jobs that will be posted into the portal along with various details about the jobs such as category, job description, perks, number of positions, location, job responsibilities, etc. The employer can add multiple jobs. Any job posted by the user will have a validity period according to their needs. User may re-validate their post after the expiry of the post.
- *Job Application Management Module*: This module lists all the applications from the job seekers along with their profile. The employer will be able to accept, reject or request more information from the job seeker using this module.
- *Find candidates or job seekers*: This module provides a search facility to find the right candidates for the job. Search filters will help refine search results to quickly listed out suitable candidates.

#### (e) MYC Admin Module

- *Job Categories Management Module*: The admin will be able to add, edit, delete, activate, and deactivate categories and subcategories in this module.
- *Employers Management Module*: All the employers registered on the website will be listed in this section. The admin will be able to view the jobs posted by the employers. Any business certified by MYC will have a certified business icon indicating the business is authentic and approved by MYC.
- *Job Management Module*: All the jobs posted by employers will be listed in this section. The admin can view the employers who posted the job.
- *Job Seeker Management Module*: The admin will be able to deactivate and/or delete job seekers and their resume. The admin will be able to view the jobs the job seeker has applied for and the current status.
- *User Management Module*: This module allows you to manage users, groups, and roles defined in the *default* security realm. You must be logged in as a member of the Administrators to add, delete, or modify a user, group, or role.
- *Reporting Module*: This module will enable generation of reports at any given time for decision support system of MYC.
- *Verification Module*: Identify verification like educational qualification, certification, training etc. to be verified manually. May be partnered with NASSCOM for the same.

The Proposed Application Software Architecture can be shown as the diagram below:



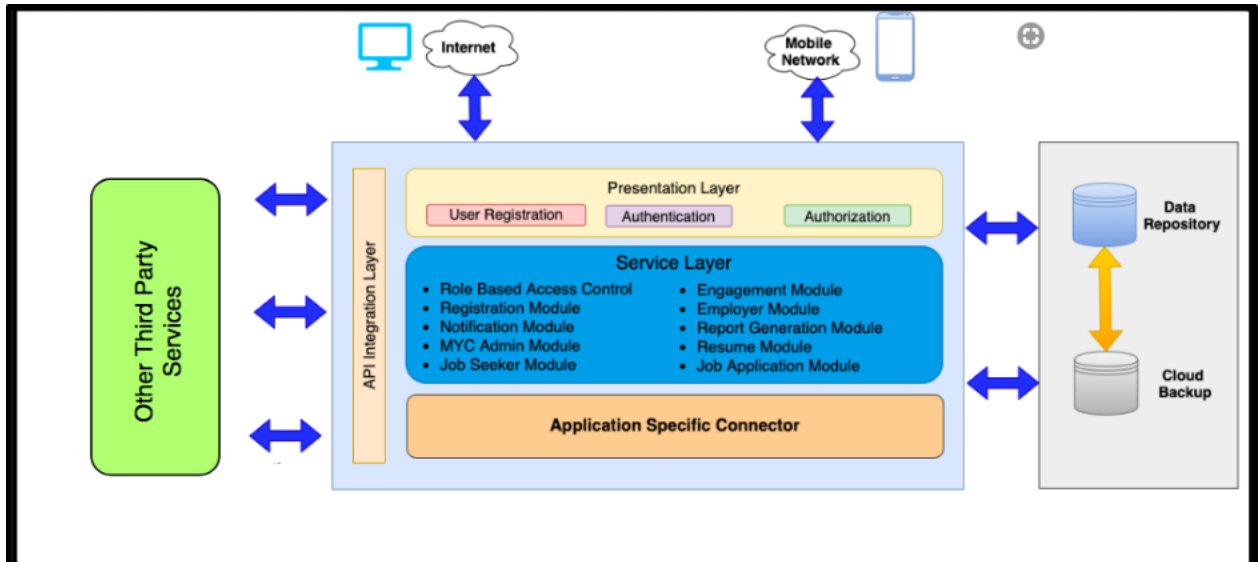


Fig 2: Application Software Architecture

## 2. Scope of Work

The specified Scope of Work that needs to be undertaken by the successful Bidder for implementation and maintenance of the project are given below and the work is to be performed as per the specifications and conditions mentioned in different parts of this document, any further amendments issued in this regard and the Contract is to be signed by the Bidder successfully.

### 2.1 Application Software Requirement

The scope of work for the successful bidder with respect to the Application development includes Solution Design, Development, Testing, Implementation and Maintenance of the solution. The major works being:-

1. To develop the solution based on the specifications finalized through the System Requirement Specifications (SRS) and solution design.
2. Defining and documenting the architecture and the detail design / development for the new web platform for improving efficiency in the employment sector and provide jobs catalogue and information to members or users and help them decide on which jobs to apply.
3. Provision for all entitlements / privileges for all types of Profiles like end users, backend Users, Administrators, etc with password assistance. Role based access and authorization of various modules.
4. Manage the staging and development environment of Software Application for each and every release starting from day 1 of development.
5. Defining the hardware/software specification for the new web platform. Creating detailed project deliverable documents (User Scenarios and workflows, User Requirements Specification, Detail Design Document, Test Case documents etc.).
6. Report Requirement:
  - a. The Application should contain a Dashboard which shows output in the form of charts and statistics
  - b. There should be dynamic report generation / analysis feature within the web

application (google analytics).

7. The system should be able to manage security for the new system from all type of external attacks (like hacking, SQL Injection, Cross Side Scripting, Denial of Service Attack etc).
8. Modules for stakeholders like employer, employee, back-end administration should be integrated in a single web application.
9. The site should be tested against a simultaneous connection of Ten Thousand (10,000) users / transactions.
10. The application should be configurable enough to enable certain dynamic features / functionalities adding/deleting/edit category, skill, qualification, rate etc.
11. All web pages should be platform independent.
12. The software application / processes have to run / interact with stakeholders without or minimal human intervention.
13. Design the User Interface and User Experience to ensure that the service is user friendly.
14. The application should be hosted in SSL environment (https).

## 2.2 Training Requirements

1. The Implementation Vendor must impart training to the personnel identified by Mizoram Youth Commission, in the operation of the application software, generation of reports, and maintenance of user etc.
2. Provide User Training, User Manuals for all types of users (including Administrator role) and Technical Documents.

## 2.3 Deliverables

The deliverables of the Project would be as follows: -

Indicative Timeline	Deliverables
T + 1 day	Signing of Agreement with the Successful Bidder



T + 4 days	System Requirement Specification document
T + 7 days	System Design Document
T + 23 days	Software Development
T + 25 days	User Acceptance Testing
T + 26 days	System Go-Live
T + 29 days	Complete Solution Documentation and user Manuals
T + 30 days	Training

## 2.4 Source Code and IPR

The ownership of the source code of the application developed by the vendor should be transferred to Mizoram Youth Commission and also the vendor is not supposed to use the same for any other Government projects without the prior written consent of Mizoram Youth Commission.



## 3. Technical Requirement

### 3.1 Proposed Architecture

1. The proposed architecture of the solution is browser based front end and both native android and iOS mobile based, with the applications residing on application servers and accessed through http protocol).
2. The bidders are expected to decide upon the development platform and tools. The deployment would be both web based and mobile based
3. The proposed application to be developed should be able to provide necessary interface to integrate with any third party API in future.
4. The application software should be interoperable and developed using open source platforms and tools.
5. The system should ensure data security and integrity
6. The project Software Development Life Cycle (SDLC) and project plan should ideally follow the Waterfall model of execution with clear demarcation and timelines for various phases: SRS preparation, System Design, Software Development, Testing, User Training and Handholding, User Acceptance & Final Deployment
7. The design of the solution architecture should be dynamic to adopt increased/decreased number of features/functionalities
8. The application should be capable of integration with other applications

