1. **Overview**
   1. **Client Company Background.**

Tec HR Consulting is a recruitment Agency which is based in Lilongwe Malawi. This film offers the following services recruitment, staff placement, staff training and development and general HR consultancy. Their main mission is to help organizations achieve their goals and objectives by identifying and managing their most valued resources which is their people. (About Us, 2023) (Banda, 2023)

* 1. **Client Contact Information**

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* 1. **Current Situation in the Job Market.**

In the present dynamic and revolving world, job seekers, employers and recruiters face many challenges and problems. The challenges faced in the current job market leads to extended job search for job seekers, under employment, increased cost, skills mismatch, and delays in some projects. Some of the problems and challenges faced in the current job market are:

* + 1. **Time Consuming.**

Job Seekers must go through multiple Websites and Social Media Platforms for them to find jobs which matches their qualifications, skills, and experience. Employers and recruiters must go through many resumes to find qualified and skilled candidates.

* + 1. **Low Visibility.**

Qualified and Experienced job seekers find it difficult to be noticed after they apply for jobs which reads to unnoticed. Small and medium sized employers fail to attract top talents because their jobs are unnoticed.

* + 1. **Expensive.**

Recruiters and employers spend a lot of money on job advertising and the entire recruitment process. Some job seekers who do not know how to write Resumes and Cover Letters also spend money by outsourcing someone who knows how to write them.

* + 1. **Difficult Hiring Process.**

The Entire process is difficult for recruiters who must go through a lot of resumes for them to find qualified candidates. Job seekers also must go through a long list of irrelevant jobs for them to find jobs which matches their qualification, skills, and experience.

* + 1. **Lack of Feedback.**

In the current Job Market, many job seekers do not get feedbacks after they apply for jobs which leaves them with uncertainty.

* 1. **Current System.**

Currently, Job Seekers can register on Tec HR Consulting website but after they register, they must visit Tec HR’s offices to finish the registration. The information which is stored in Tec HRs database include qualifications, contact details, resumes and cover letters. When Employers want potation employees for their organization, they contact Tec HR through email, or a phone call and Tec HR provides the employers a possible list of candidates who qualify for the Job. If the employers are not comfortable with the shortlisted candidates, then Tec HR advertise the job on their social media platforms. (Banda, 2023).

* 1. **Proposed System**

The proposed system will be a Job Portal, A job Portal is a web-based system which is used by Recruiters or employers to connect with potation Employees.

With this system, job seekers will be able to complete their registration on the portal and if they want to create resumes and cover letters the system will be able to help by providing the resources for creating resumes and cover letters.

Recruiters also will be able to register on the portal and then they will be able to create vacancies. The system will provide resources to help them manage applicants, schedule interviews and allowing the recruiters and applicants to communicate.

* 1. **Aim.**

The main Aim of this project is to develop a web-based system which will provide resources and support to job seekers and employers throughout the job search and recruitment.

* 1. **System Objectives.**
     1. Allowing Job Seekers to create their accounts and providing resources which will easy the resume and cover letter creation.
     2. Providing a search engine which will enable job seekers easily find job openings based on their qualifications.
     3. Allowing Recruiters to create accounts and post jobs on the portfolio.
     4. Allowing the recruiters and job seekers easily communicate throughout the hiring process.
     5. Providing Notifications on new jobs which matches the Job Seekers qualifications and skills.
     6. Allowing both recruiters and job seekers easily track the application process with just few clicks.
     7. Allowing Recruiters to create and manage interview schedule.
     8. Allowing Recruiters easily advertise their job opening on different social medial platforms.
     9. Managing subscriptions done by the recruiters and job seekers.
     10. Providing a system which will help recruiters easily identify applicants who are qualified and have the necessary skills for the job opening.
     11. Providing a system which will be creating backup file automatically of which the backups will be restored anytime when the system runs into some errors.
     12. Providing a secured, efficient and user friend system which will be enjoyable to use.
  2. **Project Objectives**
     1. Planning.

In this objective is where the scope of the problem and the solution will be determined. A feasibility study will be conducted to determine the likelihood of this project success.

* + 1. Analysis and Requirements.

Here all the requirements will be gathered, analyzed, and then documented. For a success requirements gathering to happen, interviews, observation will need to be conducted and then carefully analyzed.

* + 1. Designing.

Before developing the system, designs must be made. The designs will include, wireframes, class diagrams, use case diagrams and prototypes just to mention a few. The designs made here gives the users of the system an image of the system to be and helps the designer know what to develop.

* + 1. Development.

This is where the system will be developed and where the actual coding happens. Here the system will be developed following the designs which were made earlier.

* + 1. Testing.

After the system has been coded, it must be tested to determine if the system does as it was intended to be doing if it does not then the last stage is repeated. The test which are conducted here include white box and black box testing.

* + 1. Implementation.

After checking that the system does as it was intended to be doing, the system is implemented where now users and customers will start using the product.

* + 1. Maintenance.

This happens after some time where now new features must be added and some of the old feature might need to be adjusted to much the requirements of the users. It is more like an update or upgrade of the system.

* 1. **Methodology**

The Scrum Methodology will be the approach which will be used for the development of this project. Scrum Methodology is an agile software development framework which involves the product to be developed using increments and iterations throughout the development of the product. This methodology has been chosen because it involves users in the development of the product, and it also accommodates change of user requirements within the development process. (Haunts, 2023) (Sharma, Sarkar, & Gupta, 2023)

During the development of a product with this methodology, there are many roles who are involved for the success of the product, these people include the product owner who is the owner of the product, scrum master who acts as the servant leader of the project and the scrum team which is the development team of the product.

For this project, the product owner of the system to be developed is Tec HR Consulting, The Scrum Master is Mrs. D Manyamba, and the scrum team will have me as the developer, designer, and the Tester.

Note that the roles defined above will be used throughout this documentation please make sure you understand them carefully.

Scrum Ceremonies.

Scrum Ceremonies are the tasks which are undertaken with the Scrum methodology.

Below are the scrum ceremonies which will be carried out.

Sprint Planning meeting.

A sprint planning meeting is a meeting which is joined by all the scrum roles. During this meeting, the entire people involved discuss about the duration, features and outcome of the sprint which is to come next. This is carried at the start of each sprint.

Sprint review meeting.

All the Scrum role discussed above are involved in this ceremony. This is usual done after the sprint. In this meeting the developed sprint product is measured against the features which were discussed in the sprint planning meeting.

Sprint retrospective meeting.

This is done at the end of each sprint and all the scrum roles are involved. This meeting is carried out to reflect how the sprint was and to reflect on improvements which can be carried out.

* 1. **Scrum Methodology Phases.**

Below are the phases which are and will be taken within this project development.

* + 1. **User Requirement.**

To start this project with the listed methodology, User Requirements will be collected. The requirements which will be collected from all the stakeholders who are involved with Tec HR Consulting. The stakeholders include employees, business owners and customers. The requirement gathered at the beginning will not only be the ones, but others will be added within the project development. Below are the methods how the requirements will be collected

* + - 1. Interviews

One on one interview will be conducted to understand the business process which happen with the Products owners organization. Employees and customers will also be interviewed to understand how the current system operates.

* + - 1. Observation

Observing how the employees and customers interact with the current system will also be conducted and observing any problems which the users face while interacting with the system.

* + 1. **Product Backlog.**

A product backlog is a list of all the features which the product owner wants the system to have. This list comes after all the user requirements have been gathered and carefully prioritized. The list can change anytime when the product owner wants to add or remove some of the features. (Sawalha & AbdelNabi, 2023) (Sharma, Sarkar, & Gupta, 2023) (Haunts, 2023, p. 51)

* + 1. **Sprint Backlog.**

A sprint backlog is a list of the features which are about to be developed in the next sprint. Features identified in the sprint meeting are taken from the Product Backlog. A sprint Planning meeting is heard to identify the sprint backlog.

* + 1. **Sprint**

A sprint is a small module which the scrum team works on to complete the list of features identified in the sprint backlog. The scrum team works on the sprint backlog for two to four weeks. In this phase there can be multiple iterations before finishing it. Below are some of the processes which are involved in the sprint.

After the scrum team is done working on the sprint a scrum retrospective meeting is heard.

After a sprint is done a possible shippable product is released.

* 1. Resource Requirements and Tools.

These will be the tools which will be used to write the documentation, designing the system, and developing the system. The tools which will be needed include hardware and software tools. The resources which will be needed for the success of this project have been divided into three categories. Below are the divided categories with their prices.

* + 1. Hardware Resources.

Hardware Resources are resources which can be touched. Hardware resources will be the one which will hold most of the things needed for this project.

Below is a table showing the resources and tools with their prices.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Types | Name | Quantity | Model | Description | Cost |
| Hardware | Laptop | 1 | Acer  Acer triton 300 | This laptop has been chosen because it comes with the following specs:   * I7 11th generation processor. * 16GB Ram * 512GB Solid State Drive. * 8GB dedicated NVIDIA GeForce memory. * Windows 11 Home 64-bit. | MK1,900,000.00 |
| Phone | | 1 | Redmi Note 12 Pro | This Phone has been chosen because it comes with the following specs:   * 256GB Storage Space * 8GB Ram * 5G Network * Octa-core CPU, * Mali-G68 GPU | MK500,000.00 |

* + 1. Software Resources.

These are resources which can not be touched but they will be the resources which will be used mostly.

Below is a table showing the software resources with their prices which will be required for the success of this project.

|  |  |  |
| --- | --- | --- |
| Name | Description | Price |
| Microsoft 365 | This resource will be used to write the documentation for this project. This product includes the following applications Word, Excel, PowerPoint, Access and  Outlook just to mention a few. | MK120,000.00 |
| Microsoft Project | This will be used to make the project plan with the necessary diagrams. Below are some of the diagrams which will be developed with this product Gantt Chart, Work Break Down diagram and the sprint diagram. | MK240,000.00 |
| StarUML | This resource will be used to design UML diagram for the Project. Some of the UML Diagrams which will be designed will include class diagram, Entity Relation Diagram, activity Diagram just to mention a few. | MK250,000.00 |
| Adobe XD | This will be used to design wireframes and Prototypes for the system to be developed. | MK450,000.00 |
| Visual Studio Code | This is a code editor and will be used to code and develop the system. | Free |
| NodeJS | This is a JavaScript runtime. It is used to develop scalable network applications. | Free |
| Composer | It is a PHP software that is used to manage PHP dependencies. As already explained above that the system will be developed using Laravel, for Laravel to run, composer is required. | Free |
| Xampp Server | This will be used to run PHP and to create the local database on the production machine. | Free |
| Microsoft Edge | This will be used to check if the system works as intended. | Free |

* + 1. Other Resources.

These will be the other resources which will be needed within the project development.

|  |  |  |
| --- | --- | --- |
| Name | Description | Price |
| Mobile Data | This will be used to do some research as I will be developing the system. | MK300,000.00 |
| Labor | This is the fee which I the developer will be given upon finishing the project. | MK7,000,000.00 |
| Transport Fair | This will be used when traveling from home to the client’s office when gathering user requirements and for the client to check the system. | MK1,000,000.00 |

For this project to happen I will need this amount MK11,760,000. This fee will not be paid at once.