1. Vision Statement(Dan)

The vision for the project that me and my team had to contribute to is a GUI application that is the front login system to a larger project that includes all teams’ projects as one. For me and my team the vision is to make the login accept different levels of access from a database. We decided this so that it is possible for any type of user to use the program as long as the user accepts the LSEPI document.

Looking to the future of the project if it continues on due to the way the project has been set up, me and the team could more easily change and add later additions due to the flexibility of the project. This allows a future development that makes it simple to backtrack on earlier versions if needs be. With this mentioned if we had more time and wanted to add a bigger scope we in the future could have the project cross platform to other systems.

Our vision is to create a system that any type of user could find helpful to their everyday life. For us to have this vision we cater to the user needs so that we deliver on our promise.

5. Requirement

This product, developed by Brainvire Ltd. For use by Ufix Ltd. Is intended for use as a HR system. The current scope and the tools made available in this project include.

1. Personal Information Management

2. Leave Management

3. Payroll

4. Recruitment and Training

5. Disciplinary and asset tracking

Personal Information Management

A Primary Requirement for this project is the addition and removal of employees to the Ufix Ldt roster. Access to this data will need to be restricted to only authorised personnel.

Leave Management

This module comprehensively covers all aspects Ufix Ltd leave policy. From creating leave types; Sick, Vacation, Child Care, etc. To viewing and requesting leave time. This module will also have automated functionality such as displaying bank holidays.

Payroll

The payroll module will automate the employee payment process. Ensuring that an employee is compensated correctly for both their time and any expenses while also calculating the appropriate tax.

Recruitment and Training

This tool aides in tracking and acquiring prospective employees. Database tools will help narrow down the number of appropriate interviewees for an open position.

Disciplinary and asset tracking

Through this module an authorised user will have an overview of the company’s assets allowing for an objective observation that will lead to better decision making. This module also handles a step-by-step discipline process that can be easily audited.

3. User Character

To cover the use, management, and technical support of this project three levels of user may be implemented.

Low Level – Employee

At the lowest level, a user will be able to query the system, for example view remaining days leave or requesting days leave. This level of user will not have the ability to change any core data. This is to uphold Ufix Ltd policy as well as protect sensitive data.

Mid-level – Manager

Depending on Ufix Ltd structure. A single or multiple variations of Manager level access may be desirable. Each level having its own distinct combination or access privileges to the modules. A low-level manager for instance may not need access to Payroll or Recruitment and Training if that is not part of their responsibilities.

High Level – Admin

This is the highest level of access to the systems of the project. Admin access grants privileges outside of those needed for everyday use and is intended for supporting the function of the system.

6. Component:- Document a large product used in project and describe its each item :- Python , Trello(Dan)

Trello was used throughout the project so that we all can stay up to date and take on different tasks. This makes it easier for all of the team to organise ideas and collaborate on pieces of work together. This all down to the ability to set up to do lists making it easier in the long run of the project if used correctly and wisely also due to the time stamp feature that Trello have it makes documentation for the portfolio simple to back track on if parts are missing.

Trello is really good at allowing any type of user to use it mainly due to it being a website so I can access team work on any device. Due to this Trello is great for planning the weeks ahead for the team. This is good because we do not have to think about those weeks.

8 Architecture Aspect Make clear what is out of scope. (Jack)

Our python program was written with fairly limited scope. There is no design space for running a dedicated server or anything like that. In short we had to design a desktop application that would run on a single user’s computer with a single point of access for the database. This somewhat limited what we were able to achieve, but keeping things simple in this way also made it easier to decide how to accomplish the task.

There were no features that had to be implemented using external code or additional dependencies, all functionality came from the python standard library. Some other teams used features like postgresql. This allows for a much richer feature set in terms of the language features used to interface with the data than sqlite. For example, sqlite only has 5 data types. For the purposes of our application this did not particularly matter. However it’s always relevant to think about scale. If the application ended up scaling to the point where it held hundreds of thousands of records, we might need to look at more efficient storage solutions for large blocks of data.

Due to the limited time frame for this project, we were unable to come up with a complicated or particularly refined user interface. We used TKinter with default settings and very little visual polish. This is fine, as the application is completely fit for purpose. In the case of user facing software like this, it can be just as important for the software to look good as it is for the software to perform well.