**COMP3059 - Capstone Project I Sprint 4**

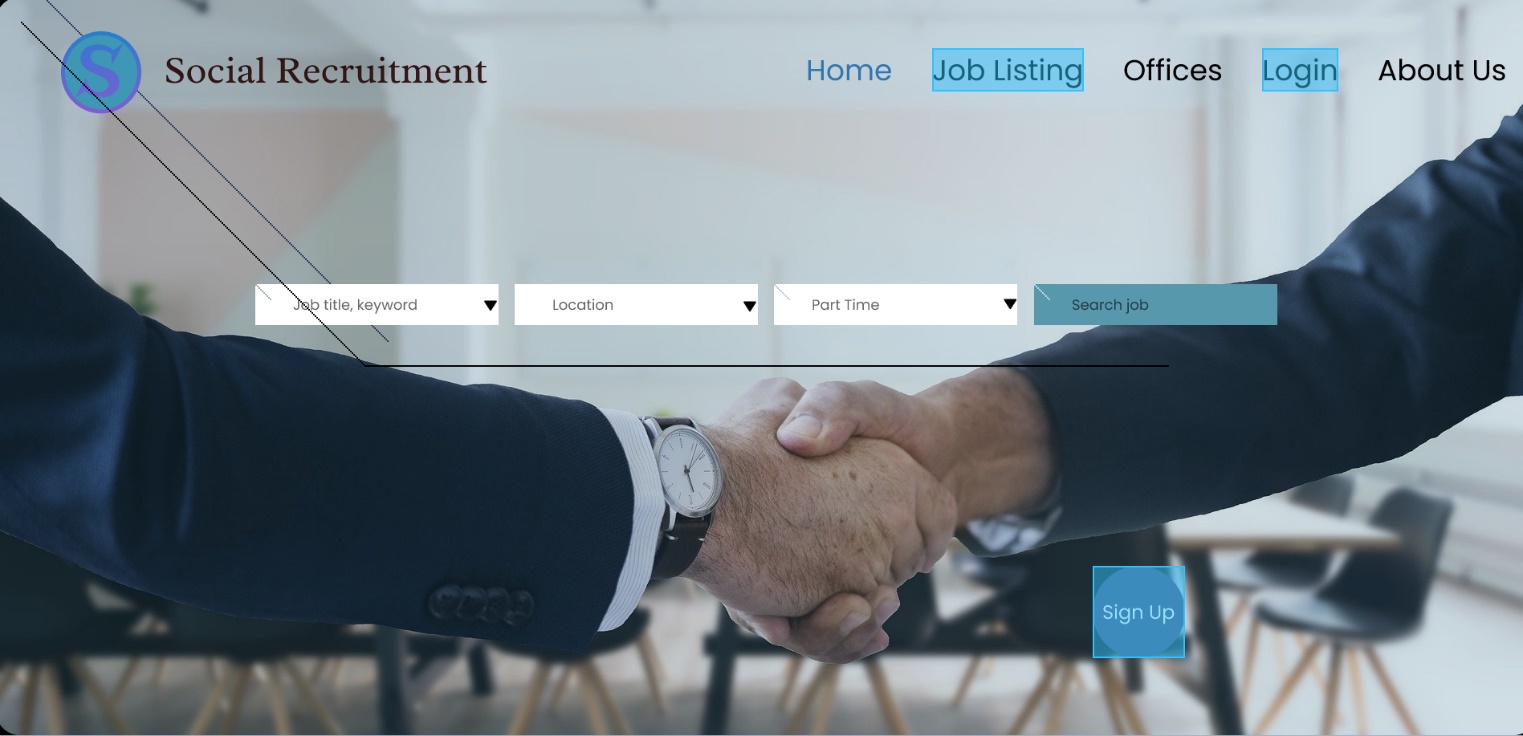
**Team 03**

**Part I – Mockup**

Figma Link

[https://www.figma.com/proto/PUDeMHzY2vCZiJlRM8iX3a/Untitled?page-id=0%3A1&node-id=2%3A3&viewport=241%2C48%2C0.2&scaling=min-zoom&starting-point-node-id=2%3A**3**](https://www.figma.com/proto/PUDeMHzY2vCZiJlRM8iX3a/Untitled?page-id=0%3A1&node-id=2%3A3&viewport=241%2C48%2C0.2&scaling=min-zoom&starting-point-node-id=2%3A3)

**Overview**

1. **Main Page**
2. **텍스트이(가) 표시된 사진

   자동 생성된 설명Job**

**텍스트이(가) 표시된 사진

자동 생성된 설명**

**텍스트이(가) 표시된 사진

자동 생성된 설명**

1. **텍스트이(가) 표시된 사진

   자동 생성된 설명Login**

**테이블이(가) 표시된 사진

자동 생성된 설명PART II -- Technology Requirements**

1. **Technological Requirements**

|  |  |
| --- | --- |
| Front-End | HTML |
| CSS |
| React JS |
| Back-End | Java |
| Database | MySQL |
| Framework | Spring |
| Bootstrap |

1. **Front-End**.
   1. HTML
      * Pros:
        + The resources that support it are enormous.
        + HTML can run smoothly on most of the most popular browsers today: IE, Chrome, Firefox, ...
        + The source code that HTML uses is open source, and you can use it completely free of charge.
        + The implementation process will be easier because it integrates with many backend languages such as Java, PHP, ... to be able to create a complete website with all the features.
      * Cons:
        + It is a static language, so it cannot produce dynamic output.
        + Provides limited security features.
        + Currently, some browsers are still slow in supporting the latest HTML features and especially with HTML5.
        + In addition, some older browsers still cannot render the new tags contained within HTML5
   2. CSS

* Pros:
  + CSS saves your time by writing CSS once and reusing the same sheet on multiple pages and provides multi-device compatibility.
  + Pages take less time to load due to less code and easy to perform maintenance.
  + CSS has better styles than HTML and a much wider range of properties.
* Cons: CSS renders different sizes with each browser. We should review and test all code on multiple browsers before putting any website or mobile apps to work so that there are no compatibility issues.
  1. REACT JS.
     + Pros:
       - High performance for applications with constantly changing data, easy maintenance and debugging.
       - React JS makes writing JavaScript code easier because it uses a special syntax that is the JSX syntax. Through JSX allows to embed HTML and JavaScript code.
       - React JS allows us to break complex UI structures into independent components.
       - Included with ReactJS are many development tools that make debugging code easier.
* Cons:
  + - * Components are not native HTML but written in JSX, so it takes time to wait for the React development team to adjust.
      * Integrating React Js into traditional MVC frameworks requires reconfiguration.
      * Complete solutions require third-party libraries.
      * React is just a View Library, not an MVC framework like other frameworks.

1. **Back-End: Java**

* Pros:
  + Java's security is very high and platform-independent which reduces programming and web development costs to a minimum.
  + Java has a rich set of APIs for web programming, and it is used a lot in real applications.
  + it supports multithreaded programming to maximize the processing capacity of web pages. Turn them into cutting-edge web apps.
* Cons:
  + Uses a lot of memory and weak at complex UI.
  + Memory-consuming which results in slow and poor performance

1. Java is Database: MySQL

* Pros:
  + It has high-security privileges and is capable of handling large volumes of data.
  + It is freely distributed over the Internet.
  + The process of importing and exporting data is quite simple.
  + MySQL is compatible to run on multiple operating systems
  + MySQL allows transactions to be rolled back, committed, and crash recovered.
* Cons: MySQL is limited in capacity. Specifically, when the number of user records grows larger, it will make it difficult to access data, making users need to apply many measures to speed up data sharing or create a MySQL cache.

1. Framework.
   1. Spring.
      * Pros:
        + Develop Spring-based applications in a time-saving and easy way.
        + Automatically configure all components for a production-grade Spring application.
        + Easily access databases and queue services like MySQL, Oracle, MongoDB, Redis, ActiveMQ and others.
        + Reduce code development time, increase the overall development performance of the whole project.
        + Easily integrate related modules like Spring-MVC, Spring Data, Spring Security, Spring Cloud.
      * Cons:
        + Working with Spring is more complex.
        + Developing a Spring application requires lots of XML
   2. Bootstrap.
      * Pros:
        + Fast interface development, full interface, luxury
        + Good interaction with smartphones and optimal platforms.
        + Lightweight and customizable
      * Cons:
        + Bootstrap has not had high optimal speed, libraries are not complete, cannot create a perfect framework.
        + Bootstrap also has too much redundant code and "kills" the creativity of designers

**B) Learning Plan**

-Create a tabular representation of the technical skills required for the development of this application.

|  |  |  |
| --- | --- | --- |
| Front End | Rear End | Database |
| * HTML * CSS | * JavaScript * Git | * SQL |

-State for each team member the Responsibility and existing skill level (%).

|  |  |  |
| --- | --- | --- |
|  | Responsibility | skill level (%) |
| Xiaolin Wang | CSS | 90% |
| Ke Wang | HTML | 80% |
| Sunny Arun | JavaScript | 85% |
| Yoo Kyung Baek | SQL | 90% |
| Tan Loi Ngo | Git | 85% |

-State the Learning Plan for each team member (for e.g. start date, end date, resource/s, etc.).

|  |  |  |
| --- | --- | --- |
|  | Start Date | End Date |
| Xiaolin Wang | Dec.1st.2021 | Jan.31.2022 |
| Ke Wang | Dec.1st.2021 | Jan.31.2022 |
| Sunny Arun | Dec.1st.2021 | Jan.31.2022 |
| Yoo Kyung Baek | Dec.1st.2021 | Jan.31.2022 |
| Tan Loi Ngo | Dec.1st.2021 | Jan.31.2022 |

Note: Sunny: Learn how to frame all web pages using HTML

Xiaolin: Learn how to use CSS to enrich web content and appearance

Ke: Learn how to build a web crawler

Yoo: Learn to build a server host using Node.js and get it running

Tan: Learn how to use Git to create team projects and have each team member have their own branch, then Merge together.