DEVELOPMENT OF PUBLIC SERVICE EMPLOYMENT SERVICE OFFICE WEBSITE IN TAGUIG CITY

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APPROVAL SHEET

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ABSTRACT

This study focuses on creating a website for the Public Employment Service Office (PESO) in Taguig City to make job-related services more accessible and efficient. The goal of the website is to improve access to employment services for the community. Many people in Taguig struggle to find jobs. The website aims to solve these problems by providing an online platform for job seekers and employers. The website is designed to help job seekers find opportunities, connect with employers, and stay updated on job fairs and training programs. It also aims to replace manual processes with an easy-to-use online platform. The development followed a user-focused approach to ensure the website meets the needs of its users. Key features include a job portal, application tracking, skills training resources, and notifications for events. Initial testing showed that the website improved how quickly and effectively services were delivered, with positive feedback from users. This project shows how technology can help improve public services, reduce unemployment, and make it easier for people to access opportunities. It also provides a model that other cities can use to modernize their employment services.

TABLE OF CONTENTS

PRELIMINARIES	Page
Title Page	i
Approval Sheet	
Abstract	iii
Table of Contents	iv
Chapter 1 – INTRODUCTION	
1.1 Background of the Study	1
1.2 Problem and Objectives of the Study 1.2.1 General Problem 1.2.2 Specific Problem 1.2.3 General Objective 1.2.4 Specific Objective	3
1.3 Scope and Limitations of the Study	5
1.4 Significance of the Study	6
Chapter 2 – CONCEPTUAL FRAMEWORK	
2.1 Review and Related Studies	9
2.2 Operation Definition of Terms	10
Chapter 3 – RESEARCH METHODOLOGY	
3.1 Methodology of the Study	13
Chapter 4 – DATA GATHERING PROCEDURE AND OUTPUT	
4.1 Interview	15

4.2 Survey	19
4.3 Observation	25
Chapter 5 – SYSTEM DESIGN DOCUMENTATION 5.1 Architectural Design 5.1.1 Hierarchical Input-Output (HIPO) Chart 5.1.2 Data Flow Diagram	29
5.1.3 Entity-Relationship Diagram 5.1.4 System Flowchart 5.1.5 Use-Case	
Chapter 6 – SYSTEM IMPLEMENTATION 6.1 System Requirement Specifications 6.1.1 Hardware Requirements 6.1.2 Software Requirements 6.1.3 Human Resource Requirements	38
REFERENCES	40
APPENDIXES	43
RESEARCHERS PROFILE	

LIST OF FIGURES

Figure	Title	Page
1	Outside view of PESO Office - Taguig City	25
2	Wide outside view of PESO Office - Taguig City	26
3	Inside view of PESO Office - Taguig City	27
4	HIPO Chart	29
5	Context Level DFD	30
6	Level 0 DFD	31
7	Level 1 DFD	32
8	Level 1 DFD (continuation)	33
9	Entity-Relationship Diagram	34
10	System Flowchart	35
11	Use Case Diagram	36

Chapter 1

INTRODUCTION

Background of the Study

Job seekers often encounter difficulties in finding positions that align with their interests and skills, primarily due to incomplete or inaccurate information about an organization's goals, work environment, and available job openings. On the other hand, recruiters struggle to identify qualified candidates who meet their specific hiring needs, creating a disconnect that complicates the recruitment process for both parties. Bridging this gap through improved access to relevant and accurate data can significantly enhance the efficiency of the hiring process, ultimately benefiting employers and job seekers alike (Geneta et al., 2019).

Unemployment remains a pressing issue across regions, driven largely by employer behavior and location-specific factors rather than worker-related issues. Bilal (2021) highlights that local job-losing rates contribute to spatial disparities, as employers tend to cluster in already productive areas, leaving less-developed regions with fewer employment opportunities. In the Philippines, the employment rate in August 2024 stood at 96.0%, a slight improvement from 95.6% in August 2023 and 95.3% in July 2024. Despite these gains, unemployment continues to affect individuals across all sectors, making it challenging for many to secure jobs that align with their skills and passions.

Unemployed individuals are defined as those without work but actively seeking employment within the past four weeks and ready to work. To address this, the Public Employment Service Office (PESO) provides comprehensive services to promote full

employment and ensure equal access to job opportunities. PESO operates under Republic Act No. 8759 and serves as a hub for employment-related services from the Department of Labor and Employment (DOLE) and other government agencies, offering these services at no cost (Geneta et al., 2019). The office focuses on job placement, coaching, and special employment programs, assisting both local and overseas job seekers and recruitment agencies (Bachita et al., 2021).

Despite these efforts, challenges persist. Employers frequently fail to submit required reports on workers' compensation claims, as explored by Wuellner and Bonauto (2016). These failures stem from misunderstandings or misinterpretations of reporting requirements, inadequate recordkeeping, and errors in data collection. These systemic issues underscore the need for improved training, clear guidelines, and robust systems to ensure compliance with regulatory standards. Similarly, Maree, Kmail, and Belkhatir (2020) examined the challenges faced in the recruitment process due to incomplete or inaccurate data provided by job applicants. They found that unstructured resumes and a lack of standardized information hinder the efficiency of e-recruitment systems, highlighting the importance of thorough and accurate applicant data to streamline the hiring process and increase employment opportunities.

In Taguig City, PESO's current manual processes for job placement often result in lengthy waiting times. For instance, obtaining a list of recruitment agencies and their requirements typically takes 30 minutes, while the submission of documents and deployment reporting can take an additional 30 to 40 minutes. To address these inefficiencies, the Public Employment Service Office Job Portal for Taguig City aims to transform the employment process by developing an interactive website. This platform will

help job seekers find suitable employment opportunities, enable online inquiries, and expand the reach of PESO services. By matching the right skills to the right jobs and making employment-related transactions faster and more accessible, this system seeks to improve the overall job placement experience for employers and job seekers alike.

Problem and Objectives of the Study

General Problem

The general problem of the study is the inefficiency and inaccessibility of the current job seeking and employment process, particularly in the Public Employment Service Office (PESO) in Taguig City.

Specific Problem

Specifically, the key problems of the study are:

- Job seekers struggle to find jobs that match their skills and interests due to limited access to job information. Meanwhile, employers also face difficulties in identifying qualified candidates that meet their needs.
- 2. The current PESO system in Taguig City involves manual processes for job seekers and employers, which may lead to inefficiencies in job placements.
- 3. The traditional PESO setup restricts the spread of job opportunities and services, making it harder for the broader community to access them.
- 4. Despite the efforts of PESO, DOLE, and other government agencies to address unemployment, there is still a gap in fulfilling the increasing demand for jobs and services.

General Objective

The general objective of the study is to implement a Public Employment Service Office (PESO) job website for Taguig City.

Specific Objective

Specifically, the study aims to:

- Design and develop PESO job website for Taguig City. The system will have the following capabilities:
 - Job seekers can create an account to showcase their qualifications by providing
 their education background, work experience, skills, and areas of
 specialization. They can also browse and apply for available job opportunities
 through the platform.
 - Employers can create an account, post the jobs available for job seekers, view applicants, as well as review them.
 - The website provides a dashboard that will show the matched jobs and other available jobs.
- 2. The website provides an email notification system to keep job seekers and employers informed about the status of job applications, ensuring timely updates throughout the hiring process.
- Create the system as designed using web technologies, like the React JS
 framework for the frontend. The backend can be developed using Node.js and
 the database can be managed with MongoDB.
- 4. Ascertain the effectiveness of the web-based service employment system in terms of its efficiency and reliability through its usability, potential impact, and user feedback from both service providers and service seekers.

5. The study will be then evaluated on thirty respondents purposely, consisting of fifteen job seekers, and fifteen employers.

Scope and Limitations of the Study

Scope

This study focuses on the development and implementation of a website specifically for the Public Employment Service Office (PESO) in Taguig City. The website will serve as an online platform where job seekers can browse job postings, employers can post job vacancies, and PESO can facilitate the matching of candidates with available job opportunities. The key features of the website will include:

- Job postings from local employers in and out of Taguig City.
- User-friendly search and filter options for job seekers.
- A registration and profile-building system for both job seekers and employers.
- Application tracking for job seekers.
- Administrative tools for PESO staff to manage job listings and track employment metrics.

The development process will include user interface (UI) and user experience (UX) design, coding, testing, and initial deployment. The study will also examine the user experience of key stakeholders, such as job seekers, employers, and PESO staff, to ensure that the website is functional, efficient, and user-friendly.

Delimitations

 Content Limitation: The website will primarily feature job postings and will not include broader features such as career counseling, skills training, or

- certification services. These services may be added in future phases but are outside the scope of this initial development.
- Technological Limitation: The study will focus on web-based platforms
 accessible via desktop and mobile browsers. Mobile app development will not
 be covered.
- Time Frame Limitation: The study will cover only the development and initial launch phase of the website. Long-term maintenance, updates, and additional features (e.g., AI-based job matching or integration with third-party platforms) are beyond the scope of this project.

This scope and delimitation section aims to set clear boundaries and expectations for the study, focusing on the development of a functional, user-friendly website that caters to the specific needs of PESO Taguig City.

Significance of the Study

The study on "The Development of a Website for Employment Service Offices in PESO - Taguig City" holds several key benefits for various stakeholders:

1. **For Job Seekers**: The development of an employment website will significantly enhance access to job opportunities for individuals within Taguig City. Job seekers can easily browse available job openings, submit applications online, and track their application status, all from a single platform. This will make the job search process more efficient, saving time and effort in locating relevant job vacancies. Additionally, the platform may enable individuals to

- access job opportunities in a broader range of industries, providing more pathways for employment.
- 2. For Employers: The website will offer a streamlined process for employers to post job vacancies, search for potential candidates, and manage applications. Employers in Taguig City will have a centralized platform to reach a larger pool of qualified job seekers. This can reduce hiring costs and time while improving the matching of job requirements with suitable candidates. The website also simplifies recruitment by providing a digital platform for listing job descriptions, qualifications, and other requirements.
- 3. **For PESO** (**Public Employment Service Office**): The website will serve as a valuable tool for PESO in fulfilling its mission to promote employment opportunities within the city. By digitizing the job matching process, PESO can efficiently manage job postings, monitor labor market trends, and track employment statistics. This will allow the agency to perform its functions more effectively, including connecting job seekers with employers, generating employment reports, and supporting the local workforce.
- 4. **For Taguig City's Local Economy**: By improving the job placement process, the website will contribute to economic growth in Taguig City. Faster and more efficient hiring processes can lead to a higher employment rate, a reduction in local unemployment, and a better alignment between job seekers and available jobs. In turn, this can boost productivity for businesses, stimulate economic activity, and improve overall livelihoods in the community.

5. **For Future Researchers and Developers**: This study can serve as a foundation for future research in the fields of employment services, web development, and e-governance. The insights gained from this project may guide future enhancements to the platform, such as mobile application development, AI-driven job matching, or integration with other government services. It can also provide useful data on the challenges and successes of implementing digital employment platforms in local government settings.

By creating a centralized, user-friendly online platform, this study seeks to enhance the overall employment ecosystem in Taguig City, improving access, efficiency, and outcomes for job seekers, employers, and PESO.

Chapter 2

CONCEPTUAL FRAMEWORK

Review of Related Studies

A study by J. Sagapsapan et al. (2018) tackled the development of online jobs publication systems. The general goal of their study is simple; to cater both employers and job seekers to post jobs-related information and qualification through the Internet, which has the same purpose of the PESO website in Taguig, and all other existing job portals on the Internet. Their system also has a filtering system for the companies based on the POEA, DOLE, and SEC registered agencies database, whereas the PESO website in Taguig filters companies through the assistance of PESO.

Another study by P. Geneta et al. (2019) started a study and development of the Public Employment Service Office (PESO) job portal for the municipality of Rosario, Batangas. The main goal of the study was to create a web-based information system that offers access to available jobs, and to simplify the usual job application process involving paper and documents to short-listed candidates. The system was developed using PHP as the programming language with CSS, HTML, and JavaScript while Notepad++ as a tool to develop the website.

Meanwhile, a study of J. Mendez et al. (2020) developed a web application named "Job Matching" that provides an easy and convenient recommender application. The general purpose of their study is to create a system that would recommend graduating and recently graduated students to a potential company, and vice versa based on their profile, skills, academic standing, and if necessary, their work experience, similar to the PESO

website in Taguig, wherein the applicant would be recommended based on the resume that they built on the website.

A study by G.D. Vee et al. (2023) tackles the design and development of job portal web application with agile and UX application in Universiti Utara Malaysia, Sintok, Malaysia. The general objective of their study is to develop a platform that is easy for users to navigate, making the recruitment process easier for job seekers and employers. The platform enables individuals to browse job openings and submit applications online, eliminating the need for traditional methods, like having job seekers search through various platforms to discover available positions. The portal has functional features such as registering, uploading, and editing resumes, similar to the resume builder of PESO website in Taguig. Likewise, companies can quickly advertise job vacancies, review applicants, and choose candidates. The job portal website was created to be user-friendly for both job seekers and administrators, providing a simplified recruitment process.

Moving on, according to A. Ashraf (2016) who developed a job portal using CakePHP Framework, the goal of his study and development of system was to design a user-friendly web application that is easy to use for jobseekers and employers, where they do not need to necessarily to register or log-in before they can use the services.

Operational Definition of Terms

Public Employment Service Office (PESO) refers to a government office established under Republic Act No. 8759 that provides free employment facilitation services such as job matching, placement, and labor market information.

Job Portal refers to an online platform that connects job seekers and employers to streamline the job application and recruitment processes.

Job Seeker refers to an individual actively looking for employment opportunities through the PESO Job Portal by creating accounts, building resumes, and applying for jobs.

Employer refers to an organization or individual using the PESO Job Portal to post job vacancies, review applicants, and manage recruitment.

Job Mismatch refers to a situation where the qualifications or interests of job seekers do not align with the available job opportunities.

Unemployment refers to the condition where individuals are without work but actively seeking employment and ready to take on jobs.

Department of Labor and Employment (DOLE) refers to the government agency collaborating with PESO to address labor market challenges and improve employment services.

Manual Processes refer to traditional job application procedures that require significant time and effort, such as verifying documents and processing deployment reports.

Resume Builder refers to a portal feature that allows job seekers to create their resumes to showcase their qualifications to potential employers.

Dashboard refers to an interface within the portal that displays important information such as matched jobs, application updates, and notifications for users.

Real-Time Updates refer to instant notifications provided by the portal to inform users about job postings, application statuses, and other activities.

React JS Framework refers to the front-end development tool used to build the user interface of the PESO Job Portal.

Node.js refers to the back-end development environment used to implement the serverside functionality of the PESO Job Portal.

MongoDB refers to the database system used to manage and store data, including job postings, user profiles, and application records.

User Experience (**UX**) refers to the overall satisfaction and ease of use experienced by users when interacting with the PESO Job Portal.

Job Placement refers to the process of matching job seekers with suitable job opportunities facilitated by PESO through the portal.

Special Employment Programs refer to initiatives managed by PESO to provide job seekers with temporary employment or training opportunities.

Labor Market Trends refer to patterns observed in employment demand and job availability that PESO monitors through the portal.

Filtering System refers to a portal feature that allows users to refine searches based on criteria such as skills, location, or job type.

Usability Testing refers to the evaluation process where the portal's functionality and design are tested by observing user interactions to identify areas for improvement.

Chapter 3

RESEARCH METHODOLOGY

Methodology of the Study

Agile Software Development

Agile software development is a methodology that emphasizes flexibility, collaboration, and efficiency to deliver high-quality products. It has become the most popular development approach in recent years, replacing traditional waterfall methodologies. Agile development focuses on the delivery of working software in short iterations, allowing for continuous improvement and adaptation to changing requirements (Agile Manifesto, n.d.).

In essence, Agile software development is a team-focused and flexible approach that prioritizes getting high-quality software done efficiently. It has become more popular than other methods. Agile focuses on delivering working software in short cycles, which helps teams improve continuously and adapt quickly to new needs. This method encourages collaboration and responsiveness throughout the entire development process.

Agile Development Cycle

The Agile software development cycle consists of six steps: concept, inception, iteration/construction, release, production, and retirement. Each step involves specific activities, such as identifying business opportunities, creating a timeline, and delivering working software in iterations. These iterations typically last between two to four weeks, allowing for continuous feedback and adaptation to changing requirements (A., Malik, n.d.).

By breaking the project into six distinct steps, Agile allows teams to focus on specific tasks that align with business goals while facilitating collaboration and communication. The short iterations promote continuous feedback, enabling teams to adjust based on user input and evolving requirements. This iterative nature not only helps in delivering working software more frequently but also minimizes risks associated with project changes, ultimately leading to higher quality products that better meet customer needs. The structured yet flexible approach of Agile promotes efficiency and encourages a proactive mindset among development teams.

Agile Testing

Agile testing is an essential part of the Agile development process. It involves testing throughout the development lifecycle, with a focus on delivering working software in each iteration. Agile testing emphasizes collaboration between developers and testers, ensuring that the product meets customer needs and is of high quality (A., Malik, n.d.).

Because it includes testing into every phase of the development lifecycle, agile testing is essential to the agile development cycle. This method puts more importance on producing working software at every iteration than on delaying testing until the very end. Agile testing guarantees that the solution closely matches client requirements and maintains high quality by encouraging collaboration between developers and testers. This cycle of continuous testing and feedback improves product reliability and speeds up the process of identifying and resolving problems, which in turn produces better development outcomes.

Chapter 4

DATA GATHERING PROCEDURE AND OUTPUT

Interview

We are conducting a data gathering process as part of our IT capstone project, where we aim to develop a job portal that streamlines the recruitment process for employers and job applicants. The portal will serve as a platform for employers to post job vacancies and for job seekers to apply directly through the system.

This questionnaire is designed to gather detailed information on the current processes followed by PESO (Public Employment Service Office) in handling job vacancies, employer requirements, applicant details, and their procedures for job fairs and special programs like SPES (Special Program for Employment of Students). We also seek insights into the specific fields and documents required for job postings, applicant eligibility, and job fair participation.

Please note that while system deployment is optional if you do not wish to move forward with it, our goal is still to propose a solution that addresses the current challenges and enhances the recruitment process. Your feedback will be crucial in helping us design a system that best suits your needs.

We greatly appreciate your time and insights in filling out this questionnaire. Thank you for your valuable contribution!

Could you walk us through the specific fields or information required in the application form for job applicants?

1. What personal information is required (e.g., full name, email address, home address, contact number)?

Full name, Birthday, Home Address, Contact number.

2. Are there fields for employment history, educational background, or specific skills?

Yes, especially if the applicant has specific job role to consider.

- Is there a section for references or emergency contacts?
 No need.
- 4. Does the form require any information on certifications, licenses, or clearances?

 This will fall under requirements already not in the form.
- 5. Are applicants asked to provide a short self-introduction, cover letter, or objective statement?
 - In PESO, no. Only Resume is needed. But it will be their discussion already with the employer. Subjective to changes.
- 6. Are there any unique or specific questions on the form that help PESO understand an applicant's suitability for different roles?

No other unique question. Only standard requirements and questions why they apply in the said role. Because the employers will be the one to conduct interviews.

What are the specific company detailing that employers must provide when posting a job vacancy through PESO? Please list each required field or document.

- 1. What specific fields must be filled in for the company name, business address, and contact details?
 - The business name must be a company legal name that is officially registered. For business address that should have street address, barangay, municipality, and zip code. Contact will be as is just name, phone number, and email address.
- 2. Is there a dedicated field for the company's nature of business or industry type? If yes, what specific options or categories are provided?
 None.
- 3. Does the job posting require business registration documents, such as SEC or DTI certificates? If so, which specific documents are needed?
 Yes, it requires the businesses to submit registration documents to verify the legitimacy of their company before they can post to job openings such as DTI, Mayor's/Business Permit, BIR Registration, and SEC Certificate.
- 4. Are employers asked to specify the company's size (e.g., number of employees), and if so, what are the categories or ranges for this?
 No.
- 5. Are employers required to provide their company's mission statement or core values? If so, what exactly is asked for?Yes, because it will give the applicant an insight into the company and culture and will help them to better match the job applicants who are aligned with the
- 6. Are there any specific legal documents or clearances (e.g., BIR registration, SSS, PhilHealth) that employers must submit with the job posting?

company's goals, mission, and values.

Answered in number 3 question. Addition to that, it requires to have pag-IBIG Fund Registration, and SSS for mandatory benefit requirements.

Does PESO allow only applicants and employers from Taguig City to post or apply for job vacancies, or is the service open to those outside of the city as well?

- 1. Are there any geographic restrictions in terms of where applicants must reside to apply for jobs posted through PESO?
 - PESO Taguig is not strict with it, however, there are certain employers that prefer applications who reside within Taguig.
- 2. Do employers posting job vacancies through PESO need to be based in Taguig City, or can businesses from other areas post jobs as well?
 It does not necessarily need to be based in Taguig City. However, PESO Taguig primarily serves the local community, so employers with job opportunities accessible or beneficial to Taguig residents are often prioritized.
- 3. If applicants or employers from outside Taguig are allowed, are there any specific procedures or conditions they need to meet?
 - They need to submit the required documentation as mentioned above and also the employers need coordination with PESO Taguig.

Can you walk us through the process for employers and applicants to participate in a PESO-organized job fair? Please specify the steps involved for each party.

- 1. How do employers register to participate in a job fair? Are there specific forms or requirements they must submit beforehand?
 - It requires a registration form that the employers need to fill out for a job fair which will collect information about the company. It requires us to have List of

Job openings and compliance documents such as registration certificates. Some of the job fairs may require a normal participation fee that will help to cover expenses. Other than that, employers may require a pre-event briefing or orientation hosted by PESO Taguig. The session covers events details, setup instructions, and guidelines to optimize engagement with job seekers.

- 2. Is there a deadline for employers to sign up for a job fair? If so, what is it?2 to 4 weeks before the job fair event.
- 3. Do employers need to provide job vacancies or positions in advance of the job fair? If yes, what specific details must they submit (e.g., job title, job description, qualifications)?

Yes, they need to provide a job opening list and positions so that PESO Taguig will have time to promote job openings to job applicants and ensure a better match between applicants and employers. It needs to have job title, job description, skills required, benefits, salary disclosure, and location. Also, it may require other additional specific requirements.

4. How are applicants informed about upcoming job fairs? Do they need to preregister, or can they walk in?

It is accessible to everyone and can walk in to apply for job fairs.

5. Are there any specific documents that applicants must bring to a job fair (e.g., resume, valid ID, certificates)?

Their updated resume, 2 valid IDs, application form, and passport-sized photo.

- 6. How are applicants matched with potential employers during the job fair? Is there an interview process on-site, or are applicants required to follow up with employers later?
 - Applicants may undergo initial interviews or screenings at the job fair, follow-up interviews, and employers will usually contact applicants later for more detailed discussions or formal interviews.
- 7. Is there any support or guidance provided to applicants before or during the job fair (e.g., career counseling, interview tips)?
 - Yes, PESO Taguig often provides support and guidance to applicants before and during the job fair to help them prepare and improve their chances of success.
- 8. What are the key dates or schedules for PESO's job fairs, and how frequently are they held?
 - PESO Taguig holds job fairs such as Labor Day (May 1) and Independence Day (June 12). The job fairs are usually held at venues like the Vista Mall Activity Center.

Can you explain the process for students to apply for the Special Program for the Employment of Students (SPES) through PESO? Please specify the steps involved for both students and employers.

1. What are the specific eligibility requirements for students to qualify for SPES (e.g., age, enrollment status, academic standing)?

Students for SPES must be 16 to 30 years old and should be enrolled in any private or public school or TESDA. Also, it needs to have an application form and

- other requirements such as School ID, Birth Certificate, ITR of the household, and other additional documents.
- 2. What documents or forms do students need to submit when applying for SPES?
 Please list each required item (e.g., school registration, proof of enrollment, parent's income).
 - SPES Application Form, Enrollment Certificate came from the school that will prove the applicant is currently enrolled. Birth Certificate, ITR.
- 3. Are there any specific fields in the SPES application form that students need to complete?

None.

- 4. Is there a deadline for SPES applications, and how can students apply (e.g., online, in-person)?
 Students can apply directly in PESO Taguig office.
- 5. How do employers participate in SPES? What are the requirements for employers to hire students under the program?
 Employers interested in participating should use PESO Taguig directly or visit the website for detailed instructions and forms. Employers can also inquire about specific registration processes and deadlines.
- 6. Are there any specific guidelines for employers regarding the types of work students can be assigned to under SPES (e.g., maximum working hours, type of tasks)?

Employers should contact PESO Taguig directly or refer to the official SPES guidelines. Usually for the part time in SPES it ranges 20 to 40 hours per week.

- 7. Does PESO provide any guidance or orientation for students or employers before the program starts?
 - Yes, PESO Taguig provides guidance and orientation for both students and employers before the SPES begins to ensure that everyone involved understands the program's objectives, guidelines, and expectations.
- 8. Are there any benefits or incentives for employers who participate in SPES (e.g., tax incentives, financial assistance)?
 - Yes, it includes Government Financial Assistance and Public Recognition from the LGU.
- 9. How does PESO match students with employers, and is there a job placement process involved?

PESO Taguig facilitates a structured process that matches students with employers based on the students' qualifications, skills, and the employers' needs. The goal is to provide students with meaningful work experience while helping employers meet their staffing needs in a way that supports youth employment and skills development.

What types of administrator are there in PESO (eg. administrator, staff).

- Who is responsible for overseeing all operations in the PESO office?
 PESO Manager.
- Who handles the creation and management of job vacancy listings in the PESO?
 PESO Manager and PESO Staff.
- 3. Who is responsible for managing applicants who apply to job vacancies in the PESO?

- It is handled by PESO staff under the supervision of the PESO Manager.
- 4. Who ensures that all job vacancy listings and applicants comply with PESO's regulations and standards?
 - PESO Manager and PESO Staff.
- 5. Who is responsible for verifying the compliance of job listings with required regulations (e.g., DTI, etc.)?
 - The PESO Manager and the PESO staff are responsible for verifying that job listings comply with required regulations.

Accreditation:

- 1. If we're approved for PESO accreditation to post job vacancies, what kind of proof will we receive?
 - They will receive official proof of accreditation in the form of an accreditation certificate, or an official letter issued by the PESO office.
- If the certificate is issued, is it in a physical format, or do you provide it digitally?
 It depends. It can be hard copy or soft copy; also, it will be the preference as well of the employer.
- 3. If we receive a certificate, what information does it contain?
 Company name, business address, and PESO Accreditation Info (Certificate number, Date of Issue, and Validity Period). Signature and Official Seal from PESO that has PESO office details, manager's name, and contact information.
- 4. If there's any kind of reference number or ID, do we need to use it when accessing PESO services online?

- Yes, when accessing PESO services online, you will likely need to use the reference number or ID provided on your accreditation certificate.
- 5. If we want to participate in job fairs or other PESO events, would we need to show the certificate?
 - They will need to show your accreditation certificate as proof that their business is officially authorized to post job vacancies through PESO.
- 6. If our accreditation expires, do we need to reapply from scratch?
 Renewal process does not need to re-apply from scratch.
- 7. If someone asks us for proof of our PESO accreditation, would the digital certificate be sufficient?
 - Yes, a digital certificate of your PESO accreditation would generally be sufficient as proof of your business's participation in PESO's programs.
- 8. If we have further questions, can we reach out to PESO for assistance?
 Yes.

Could you share sample accreditation forms or certificates, if available? Specifically, we're interested in:

- Accreditation for Posting Job Vacancies: A sample certificate or document showing proof of accreditation for general job postings.
- Accreditation for Job Fair Participation: A sample of any additional documentation or proof required for employers participating in PESO-organized job fairs.

Observation



Figure 1. Outside view of PESO Office - Taguig City



Figure 2. Wide outside view of PESO Office - Taguig City



Figure 3. Inside view of PESO Office - Taguig City

The PESO Taguig plays an important role in helping people find jobs and build their careers. It acts as a bridge between job seekers and employers by offering various programs that aim to reduce unemployment and support workforce development. PESO Taguig has made the job application process straightforward and accessible for everyone. Applicants can register either in person or online, which is really helpful for those who may have difficulty traveling or do not have much access to technology.

When it comes to job opportunities, PESO Taguig has strong connections with local businesses, multinational companies, and government agencies. These partnerships allow them to offer a variety of job listings in different industries, so there is something for almost everyone, no matter what their educational background or skill set.

What is great is that PESO does not forget about those who face bigger challenges in finding work, like persons with disabilities, senior citizens, or solo parents. They run special programs to ensure that everyone gets a fair chance. What stands out about PESO Taguig is its strong connection with the community and its efforts to adapt to new trends. They are always looking for ways to reach more people, like using social media and online platforms to share updates on jobs and programs.

Still, there are areas where they can improve. For example, PESO could do more follow-ups with people who have been placed in jobs to see how they are doing and whether they are satisfied.

PESO Taguig would benefit significantly from having a dedicated system or application to enhance the efficiency and accessibility of its services. One major observation is that some job seekers have a hard time finding opportunities because of distance or time limitations, but a digital system could solve this by letting people check job postings and resources anytime, anywhere. Matching job seekers with employers can also take a lot of time when done manually, but with an app, this process could be faster and more accurate using tools like algorithms to pair people with the right jobs for their skills. It would also make it easier for PESO to keep track of applicants, job placements, and follow-ups.

Overall, PESO Taguig is a key part of the city's efforts to reduce unemployment and boost economic growth. They are doing a great job offering opportunities and programs that benefit many people, but with some improvements, they could have an even bigger impact.

Chapter 5

SYSTEM DESIGN DOCUMENTATION

Architectural Design

Hierarchical Input-Output (HIPO) Chart

HIPO stands for Hierarchical Input Process Output. HIPO diagram assesses the system and facilitates documentation. It organizes the software system's modules into a hierarchy. HIPO diagrams can be used to get a high-level picture of the system's functions. The functions are further divided into sub-functions, using HIPO diagrams demonstrating the system functions (N. Goel, 2024).

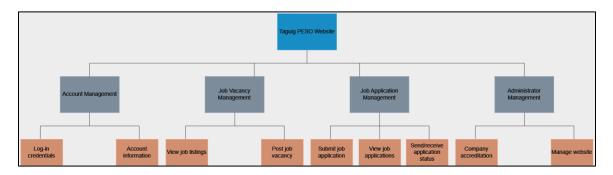


Figure 4. HIPO Chart

The system's HIPO chart shown in *Figure 4* has the Taguig PESO Website as the top-most level, and below it is the top-level row, consisting of account management, job vacancy management, job application management, and administrator management. Each of these top-level processes has its own sub-processes. From left to right, the sub-processes are log-in credentials and account information, which belong to account management, view job listings and post job vacancy, which belong to job vacancy management, submit job application, view job applications, and send/receive application status, which belong to job application management, and company accreditation and manage website, which belong to administrator management

Data Flow Diagram

A data flow diagram (DFD) is a visual representation of data flow through a diagram. In textual representation, a data flow diagram is composed of three components: the external entities, processes, and data flow.

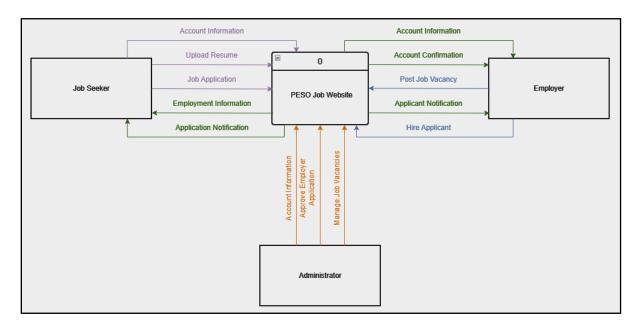


Figure 5. Context Level DFD

The system's context-level DFD shown in *Figure 5* has external entities composed of job seeker, employer, and administrator. Since it is only on context-level, it has only one process, which is the PESO job website, or the system itself.

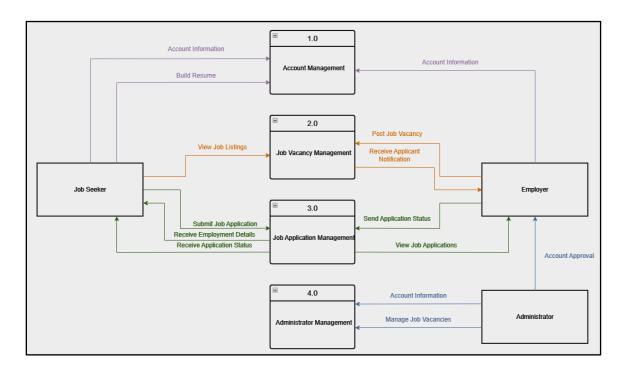


Figure 6. Level 0 DFD

The level 0 DFD shown in *Figure* 6 has made the context-level more detailed. Its external entities still include the job seeker, employer, and administrator. The process now has four parts: account management, job vacancy management, job application management, and administrator management.

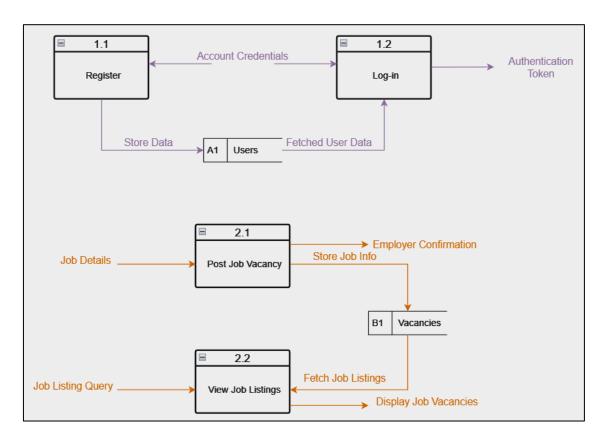


Figure 7. Level 1 DFD

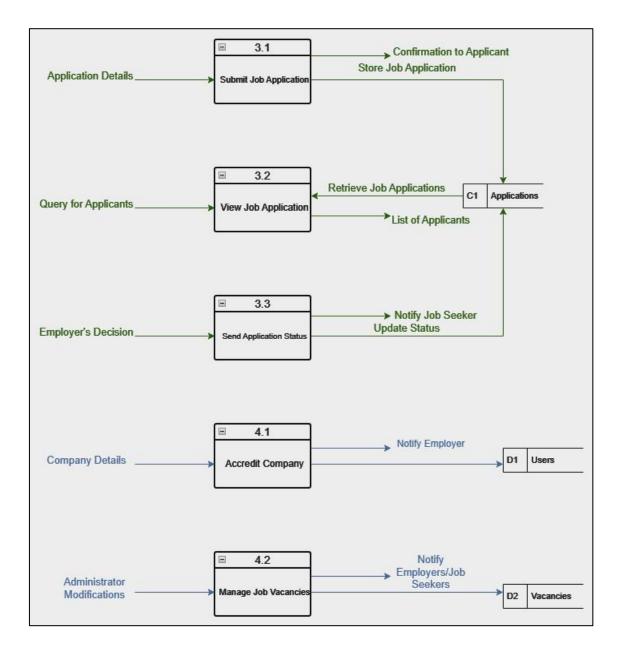


Figure 8. Level 1 DFD (continuation)

The level 1 DFD shown in *Figure 7* and *Figure 8* are just the sub-processes of the level 0 DFD. Its sub-processes include register, log-in, post job vacancy, view job listings, submit job application, view job application, send application status, accredit company, and manage job vacancies.

Entity-Relationship Diagram

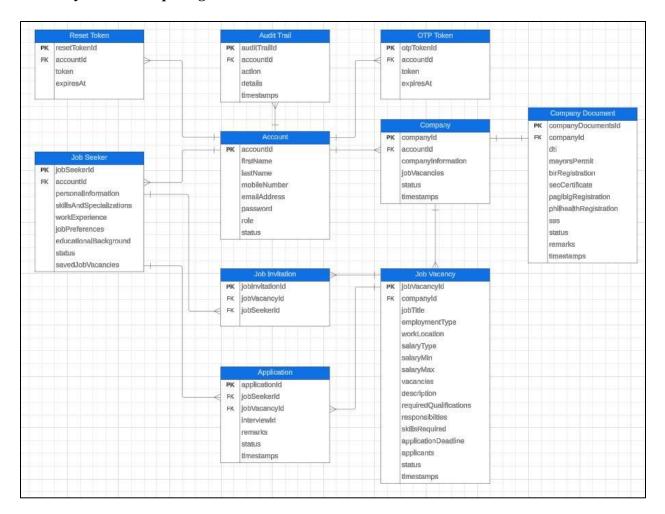


Figure 9. Entity-Relationship Diagram

The scope of information to be maintained in the system will be illustrated using an Entity-Relationship Diagram (ERD), as presented in *Figure 9*. The ERD will outline the core structure of the database, composed of ten primary entities: activity log, job seeker document, job seeker, account, company, company document, job fair, application, job vacancy, and interview.

System Flowchart

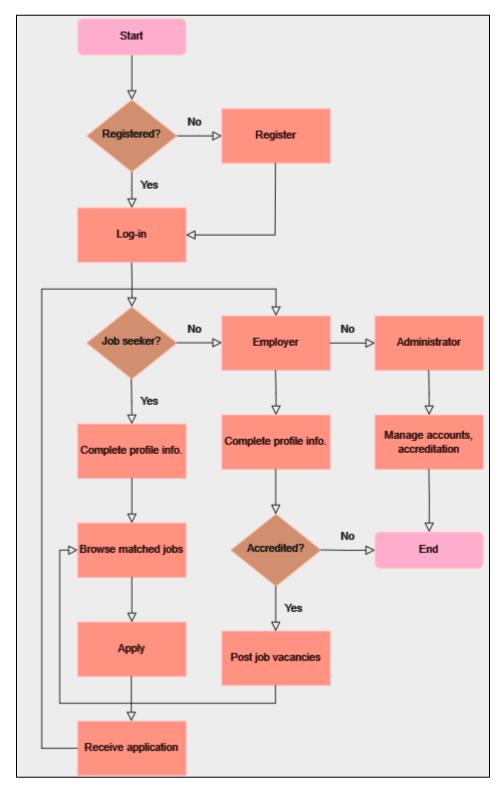


Figure 10. System Flowchart

The system's flowchart shown in *Figure 10* starts with the user determining if they are already registered; if not, they proceed to the registration process. Registered users can log in, after which the system directs them based on their role. Job seekers complete their profile, browse matched jobs, apply, and receive application updates. Employers complete their profiles and, upon accreditation, post job vacancies. Administrators manage user accounts and accredit employers/companies. The flow ends for users who fail accreditation or complete their intended actions.

Use-Case

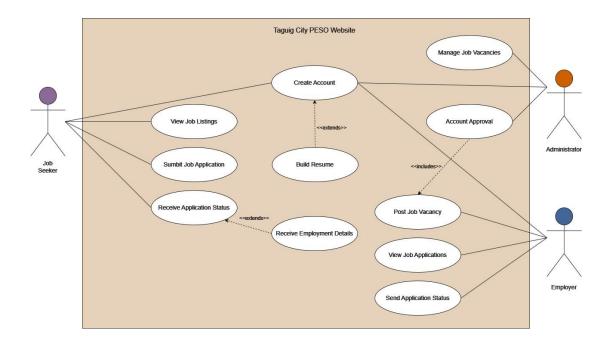


Figure 11. Use-Case Diagram

The system's use-case diagram shown in *Figure 11* consists of three actors, which are the job seeker, employer, and administrator. Each actor has their own use-cases. The job seeker has to create an account, view job listings, submit job applications, and receive application status. The employer has post job vacancy, view job applications, and sends

application status. Lastly, the administrator has job vacancies management, and account approval.

Chapter 6

SYSTEM IMPLEMENTATION

System Requirement Specification

Hardware Requirements

For Development and Testing:

- Processor: Intel Core i5 (or equivalent) or higher
- RAM: 8 GB minimum (16 GB recommended)
- Storage: 256 GB SSD (or higher)
- Display: Full HD monitor (1920x1080 resolution)
- Internet Connection: Minimum 10 Mbps

For Server Hosting:

- Processor: Intel Xeon or equivalent server-grade processor
- RAM: 16 GB minimum (32 GB recommended)
- Storage: 1 TB SSD minimum for application and database storage
- Backup Device: External storage or cloud storage for system backup

For End Users:

- Devices: Desktop/laptop, smartphone, or tablet
- RAM: 4 GB minimum
- Internet Connection: Minimum 5 Mbps

Software Requirements

For Development:

- Operating System: Windows 10
- Frameworks: Node.js for backend development

- Database Management System: MongoDB
- Programming Languages: JavaScript
- Frontend Libraries/Frameworks: ReactJS
- Development Tools: Visual Studio Code

For Server Hosting:

• Operating System: Windows server or Linux-based server

For End Users:

- Operating System: Windows 7 or higher, macOS, or Linux
- Web Browsers: Google Chrome, Mozilla Firefox, Safari, or Microsoft Edge

Human Resource Requirements

 PESO Staff/Administrator: Approves employer accounts and accredits job vacancies.

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APPENDIXES



Appendix A. Research Schedule (Gantt Chart)

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is are conducting a data gathering process as part of our II captions project, where we also to develop a job portal that streamlines the recruitment process for employers and job applicants. The portal will serve as a platform for semployer to perform the state of the process of the property of the property of the process to apply directly through the system.

This questionneirs is designed to gather detailed information on the current processes followed by PSO (Maller Employemst Service Office) in heading glob vacancies, mapping representative and the process of the p
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he is responsible for verifying the compliance of job listings with required regulations (e.g., OII, etc.)?

The constant Manager and the PESO staff are responsible for verifying that job listings comply with required regulations.

L. If we're approved for PESO accreditation to post job vacancies, what kind of proof will we receive?

L. If we're approved for PESO accreditation to post job vacancies, what kind of proof will we receive?

L. If we're approved for PESO accreditation in the form of an accreditation cortificate, on on official letter issued by the PESO office.

L. If the centificate is issued, is it in a physical format, or do you provide it digitally?

It depends. It can be hard copy or not copy; also, it will be the preference as well of the employer.

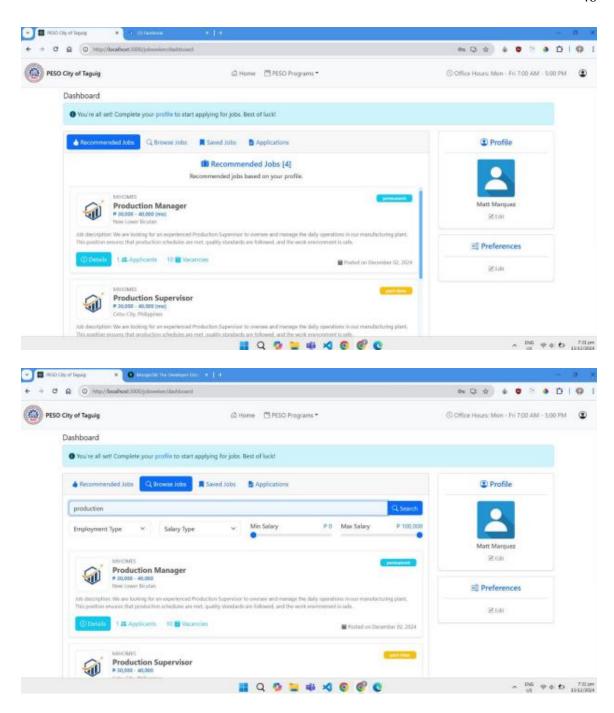
3. If we receive a certificate, what information does it contain?

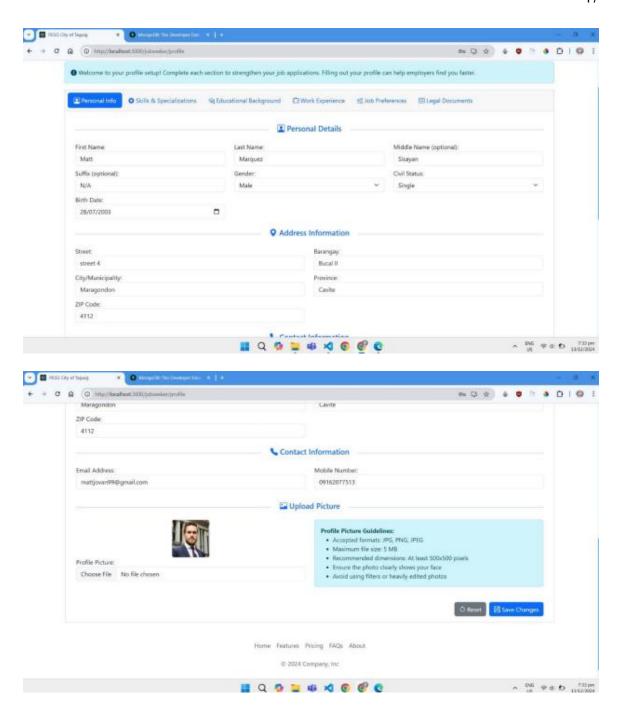
Company manager or not copy; also, it will be the preference anaber on the pre
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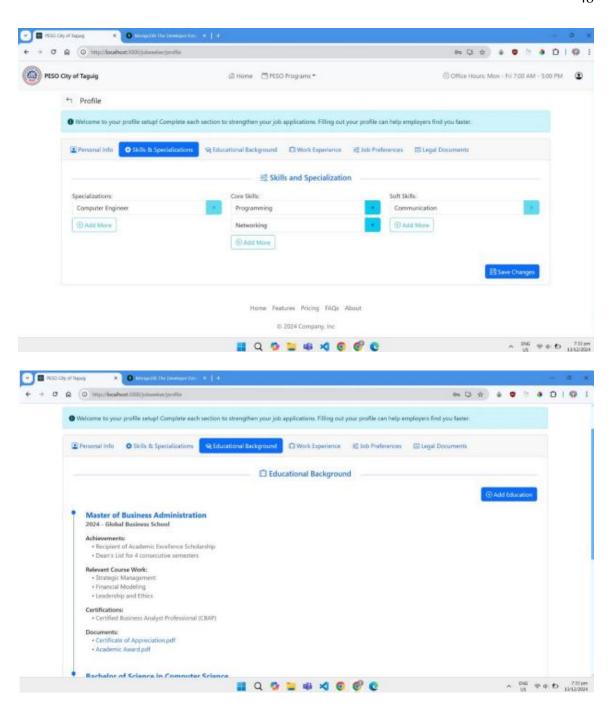
Appendix B. Transcript of Interview

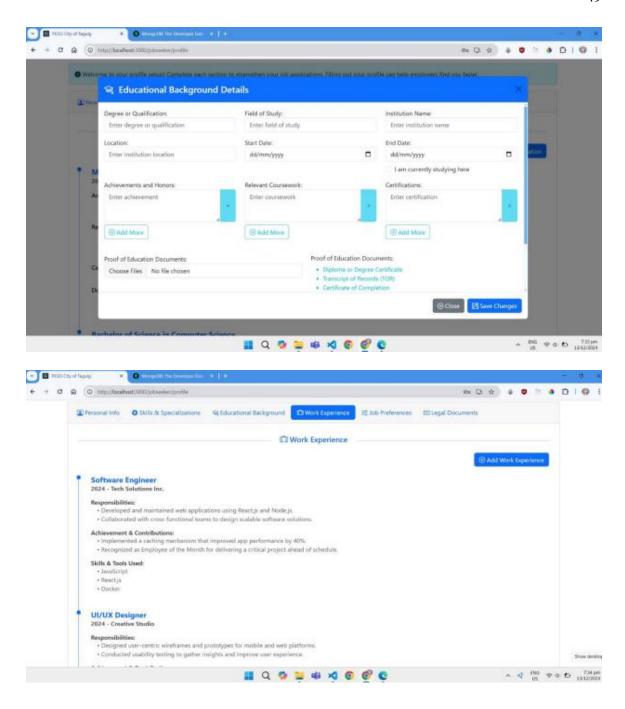
Questionnaire: Public Employment Service Office (PESO) - Statistics Needs Assessment Purpose: To understand the statistical data requirements of the Public Employment Service Office for better planning, reporting, and decision-making.	
1.	Name of PESO Office:
2.	Location:
3.	Position:
4.	Years of experience in the PESO:
	n 2: Current Data Usage 5. What types of statistical data does your PESO currently use? mployment rates, unemployment rates, job vacancies, etc.)
6.	How often do you use this data for decision-making purposes? (e.g., daily, weekly, monthly, yearly)
	o Daily / Weekly / Monthly / Yearly
	a: Desired Statistics 9. What specific statistical data would you like to have more access
0?	13. Desired Statistics 5. What specific statistical data would you like to have more access
•	13. Desired Statistics 5. What specific statistical data would you like to have more access
•	How important is the following data for your work? (Rank from 1 to 5, where 1 is least important and 5 is most important):
•	How important is the following data for your work? (Rank from 1 to 5, where 1 is least
•	How important is the following data for your work? (Rank from 1 to 5, where 1 is least important and 5 is most important):
•	How important is the following data for your work? (Rank from 1 to 5, where 1 is least important and 5 is most important): Employment rates
•	How important is the following data for your work? (Rank from 1 to 5, where 1 is least important and 5 is most important): Employment rates Unemployment rates
•	How important is the following data for your work? (Rank from 1 to 5, where 1 is least important and 5 is most important): Employment rates Unemployment rates Job vacancy statistics
•	How important is the following data for your work? (Rank from 1 to 5, where 1 is least important and 5 is most important): Employment rates Unemployment rates Job vacancy statistics Skills demand and supply
10.	How important is the following data for your work? (Rank from 1 to 5, where 1 is least important and 5 is most important): Employment rates Unemployment rates Job vacancy statistics Skills demand and supply Job placement outcomes
10.	How important is the following data for your work? (Rank from 1 to 5, where 1 is least important and 5 is most important): Employment rates Unemployment rates Job vacancy statistics Skills demand and supply Job placement outcomes
10.	How important is the following data for your work? (Rank from 1 to 5, where 1 is least important and 5 is most important): Employment rates Unemployment rates Job vacancy statistics Skills demand and supply Job placement outcomes Labor market trends

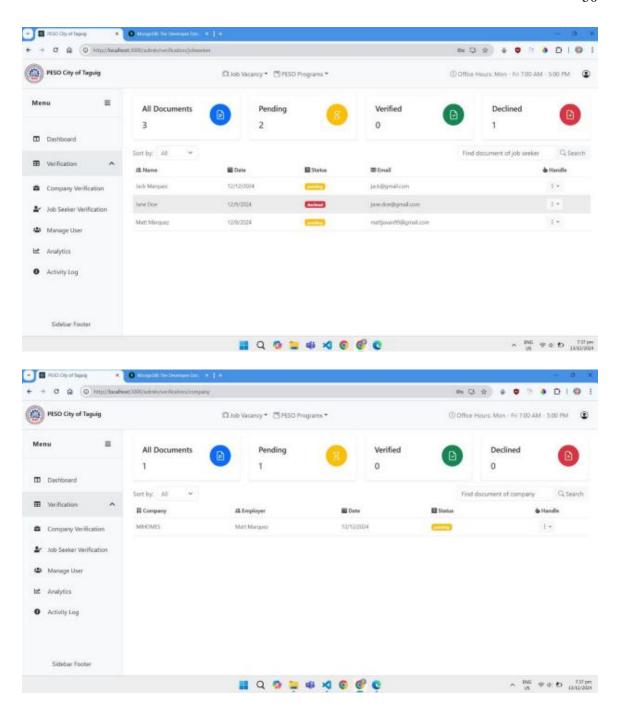
Appendix C. Survey Forms/Reports











Appendix D. Screen Design

Name Liam Andre B. Adriano

Age 22 years old

Date of Birth July 17, 2002

Place of Birth Taguig City, Metro Manila

Sex Male

Marital Status Single

Religion Roman Catholic

Address 217 Manuel L. Quezon Street, Taguig City

Email liamandre.adriano@tup.edu.ph

Phone 09179083758

Educational Background:

College Technological University of the Philippines -

Manila September 2021 – Present

Senior High School STI College Global City June 2019 - May 2021

Junior High School Bicutan Parochial School June 2015 - May 2019

Elementary Pillar of Truth Educational Foundation, Inc.

June 2009 – May 2015

Hobbies and Skills Photography

Video Editing

Film making

School Achievements Academic Awards, Extracurricular Activities

Name Mark Rickghell L.

Fernandez

Age 22 years old

Date of Birth April 4, 2002

Place of Birth Cavite City, Cavite

Sex Male

Marital Status Single

Religion Roman Catholic

Address 200 San Roque St., San Francisco Subd, Tejero,

Gen. Trias, Cavite

Email @markrickghell.fernandez@tup.edu.ph

Phone 09162086956

Educational Background:

College Technological University of the Philippines -

Manila September 2021 – Present

Senior High School Holy Nazarene Christian School

June 2018 - April 2020

Junior High School Holy Nazarene Christian School

June 2014 - April 2018

Elementary Holy Nazarene Christian School

June 2008 - April 2014

Hobbies and Skills Listening to music

School Achievements Graduated with honors (Elementary & High School)

Dean's Lister

Name Matt Jovan S. Marquez

Age 21 years old

Date of Birth July 28, 2003

Place of Birth Cavite

Sex Male

Marital Status Single

Religion Roman Catholic

Address Bucal 2, Maragondon, Cavite

Email mattjovan99@gmail.com

Phone 09162077513

Educational Background:

College Technological University of the Philippines -

Manila September 2021 – Present

Senior High School Bucal National High School

June 2019 - May 2021

Junior High School Bucal National High School

June 2015 - May 2019

Elementary Maragondon Elementary School

June 2009 – May 2015

Hobbies and Skills Reading

Watching anime

School Achievements Graduated with honors (Elementary & High School)

Dean's Lister



Name Jamaica Ann B. Sanchez

Age 21 years old

Date of Birth December 26, 2002

Place of Birth Rodriguez, Rizal

Sex Female

Marital Status Single

Religion Christian (Born Again)

Address B4 L10 Alberto Subdivision, Burgos, Rodriguez,

Rizal

Email jamaicaann.sanchez@tup.edu.ph

Phone 09494864451

Educational Background:

College Technological University of the Philippines -

Manila September 2021 – Present

Senior High School St. Matthew College

June 2019 - May 2021

Junior High School Burgos National High School

June 2015 - May 2019

Elementary Precious Little Lights Academy

June 2009 – May 2015

Hobbies and Skills Reading books

Watching movies and series

Playing sport (badminton)

Playing instruments (ukulele and keyboard)

School Achievements Graduated with honors (Elementary & High School)

Dean's Lister