UNIVERSITI MALAYSIA TERENGGANU

FAKULTI SAINS KOMPUTER DAN MATEMATIK

ONLINE JOB APPLICATION SYSTEM

COURSE NAME :

CSF 3023 – PEMIKIRAN SISTEM DAN LOGIK

SUBMITTED TO:

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Table of Contents

1.0 Introduction

In the modern digital age, information technology plays an integral role in improving the efficiency of business processes, such as hiring and human resource management. The conventional hiring process, whereby applications are submitted manually through paper documents and in person, is characterized by inefficiencies and the potential for human errors. The larger the organization, the more applications it receives, making it harder to handle the hiring process manually. Many organizations are thus opting for digital solutions in order to gain efficiencies in human resource management (Laudon & Laudon, 2020).

An Online Job Application System is a web-based system that helps job applicants look for jobs and apply online as well as check the status of their applications. At the same time, it allows the organization to advertise job offerings and check applications and manage applicant information using a centralized system. An Online Job Application System increases access to services for users as it enables them to access employment services any time and from any location where there is internet access. Mathis et al. (2017) explain that using online recruitment systems enables a reduction in costs and increases employment effectiveness.

In addition, modern e-recruitment platforms enable easier communication between employers and candidates through the provision of status updates on applications, such as pending, selected, and rejected. The safety aspects of e-recruitment platforms, including user registration and log-in systems, protect personal information, while the search/job filtering capabilities help the candidate quickly search the most fitting opportunities. The employer has easier management of data, considering that the data provided by the applicants can be easily accessed. Empirical research has confirmed the use of technology in the recruitment process, thus improving the recruitment process speed (Stone et al., 2015). In Malaysia, the use of e-recruitment platforms has been found to be helpful in organizations in the management of a high volume of candidate applications (Tong & Sivanand, 2005).

Overall, an Online Job Application System ensures the efficiency, accuracy, and accessibility required for modern recruitment approaches within the workplace. The system is important in modern human resource management in consideration of the growing need for the digitalization of the organization.

2.0 Functional Requirements

Functional requirements simply outline the very specifications and tasks a system must perform so that it can meet the requirements of the users. Within the framework of an Online Job Application System, these requirements are subdivided into the way in which a job applicant and an employer engage with the system, such as: registering and logging into the system, posting a job, searching jobs, applying, and monitoring the application status. The system operates effectively and makes recruitment process effective when the functional requirements are well defined.

SOMMerville (2016) identifies functional requirements as defining how a system must act based on the inputs of the users and they play a vital role in ensuring that the system is functioning as expected. Moreover, the properly developed functional requirements may enhance the efficiency of organizations using information systems (Laudon and Laudon, 2020).

2.1 User Registration and Login

The system shall allow users to log in to the system through the secure log-in process. After gaining entry into the log-in page, users are required to enter the correct log-in credentials in order to gain entry into the system. If the log-in credentials are correct, users get access to the system. If the log-in credentials are incorrect, users receive an error message showing 'invalid username or password'. Users lacking log-in credentials are provided with the opportunity to log in via a link to the registration page before gaining entry into the system.

2.1.1 Pseudocode

```
Start
    User open login page
    Input username, password
    System checks login details
    If login details are correct
       System allows user to access the system
   Else if
       System display "invalid username or password"
   Else
       User enter registration page to register account
   End if
End
```

Table 2.1.1 – Pseudocode for User Registration and Login Functionality

2.1.2 Flowchart

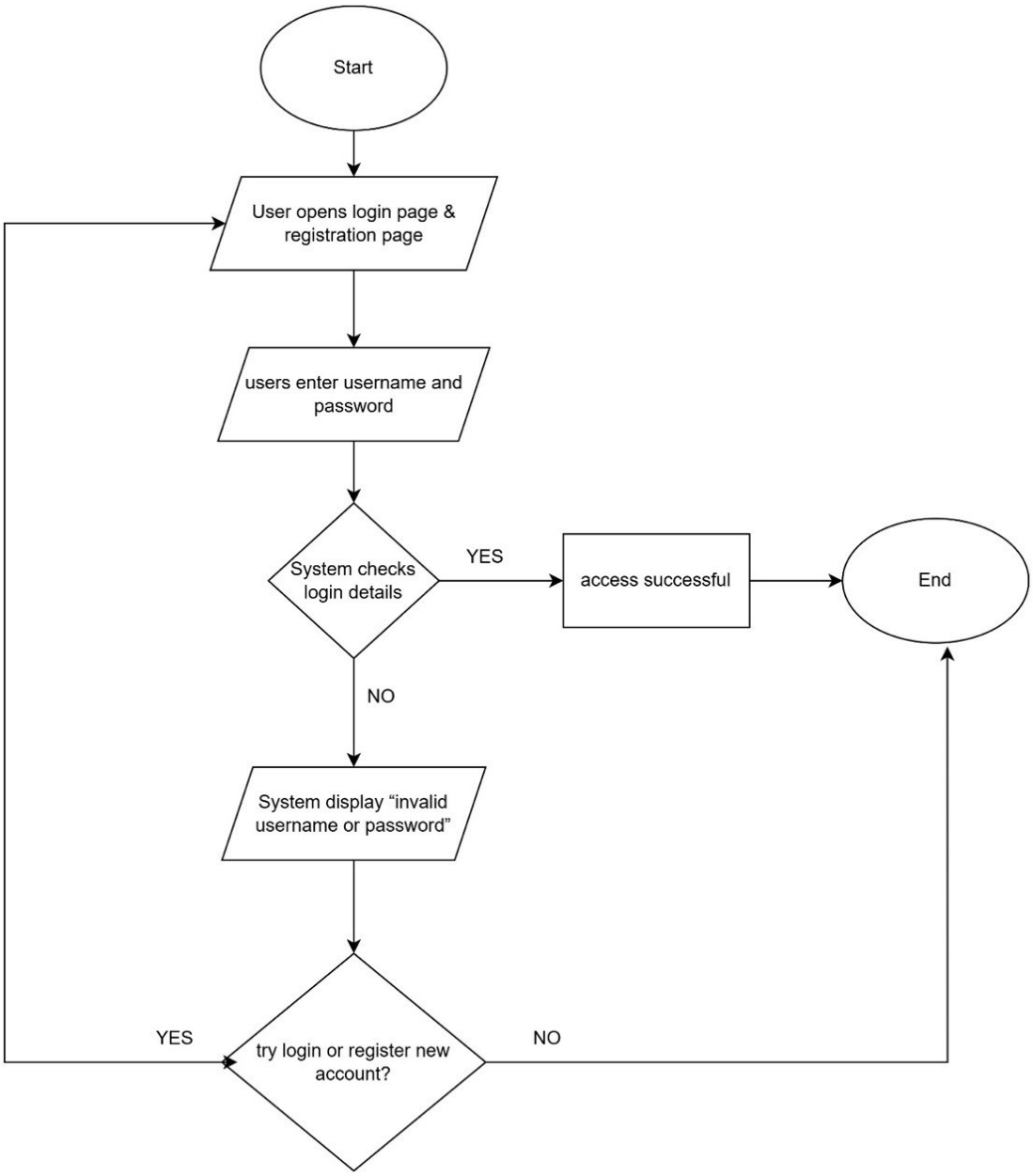

Figure 2.1.2 – Flowchart for User Registration and Login Functionality

2.2 Job Posting by Employers

The system shall allow employers to carry out job posting and application processing procedures after gaining access. After gaining access into the system, the employer chooses job posting module options. The system displays a list of job applications for the displayed job vacancies, allowing the employer to process them. The employers are able to evaluate the list of applications received and change statuses accordingly. The system maintains statuses for future reference.

2.2.1 Pseudocode

```
Start
   Employer logs into system
   Employer selects job posting
   Systems displays list of job application
   Employer reviews application
   Employer updates applications status
   System saves updated status
End
```

Table 2.2.1 – Pseudocode for Job Posting by Employers Functionality

2.2.2 Flowchart

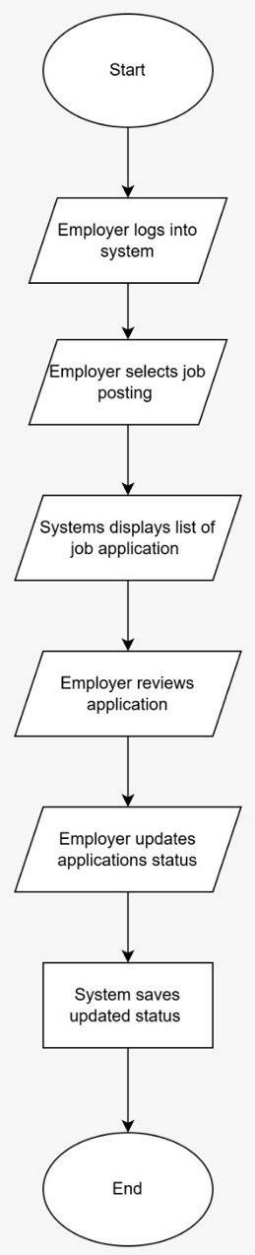

Figure 2.2.2 – Flowchart for Job Posting by Employers Functionality

2.3 Job Search and View Listing

The system shall allow the user access to the current employment vacancies through the designated job vacancies section. Once the user chooses the option to view the job vacancies, the system checks the availability of the vacancies and displays the vacancies in the list if they exist in the system; if not, the system returns a display indicating the absence of the job vacancies. Finally, the user is presented with the opportunity to choose his or her desired job from the displayed vacancies in the system.

2.3.1 Pseudocode

```
Start
  User selects "View Job Vacancies"
  System checks whether job vacancies exist
  If job vacancies exist then
      System displays list of job vacancies
  Else
      System displays "No job vacancies available"
  End if
  User selects search option (optional)
  If user chooses to search then
      User enters job title or company name
      System searches job vacancies
      System displays matching job vacancies
  End if
  User selects a job from the list
  System displays detailed job information
End
```

Table 2.3.1 – Pseudocode for Job Search and View Listing Functionality

2.3.2 Flowchart

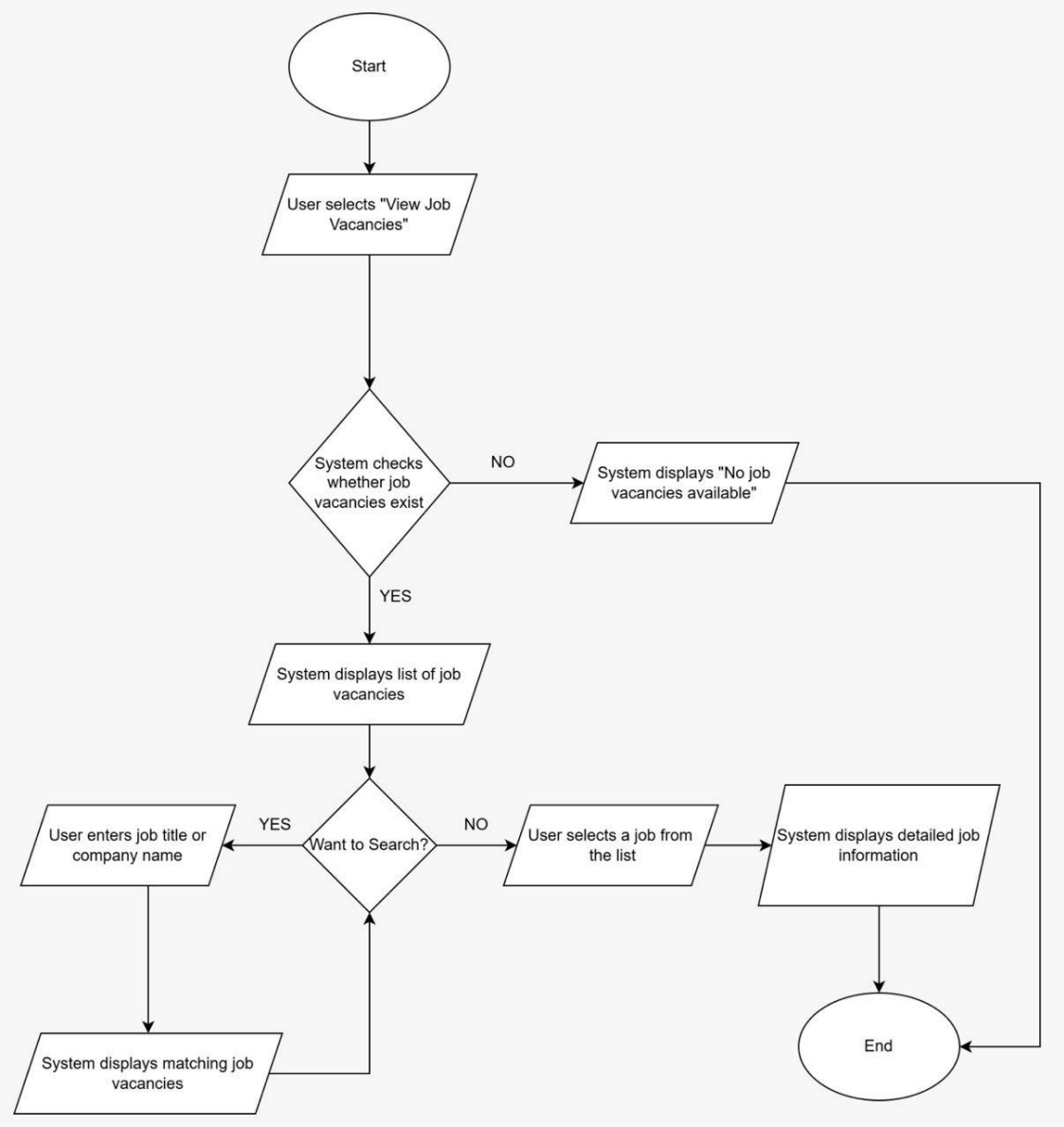

Figure 2.3.2 – Flowchart for for Job Search and View Listing Functionality

2.4 Job Application Submission

The system allows individuals in search of employment to apply for the vacancies using the system. Based on the evaluation of the entire information needed for a particular job, the individual is able to determine whether to go forward with the process of creating an application. When the individual wants to apply for a particular vacancy, the individual is required to fill in the application form and attach their resume to the system. The system will confirm whether the individual has filled in all the needed information. When the individual has filled in the needed information, the system will submit the application and display a message indicating that the application is successful. When the information is incomplete, the system will display a message asking the individual to fill in all the needed information.

2.4.1 Pseudocode

```
Start
  User selects a job to apply
  User fills in application form
  User uploads resume
  Systems checks whether all required information is complete
  If information is complete then
      System submits application
      Systems displays “Application submitted successfully”
  Else
      System displays “Please complete all required information”
  End if
End
```

Table 2.4.1 – Pseudocode for Job Application Submission Functionality

2.4.2 Flowchart

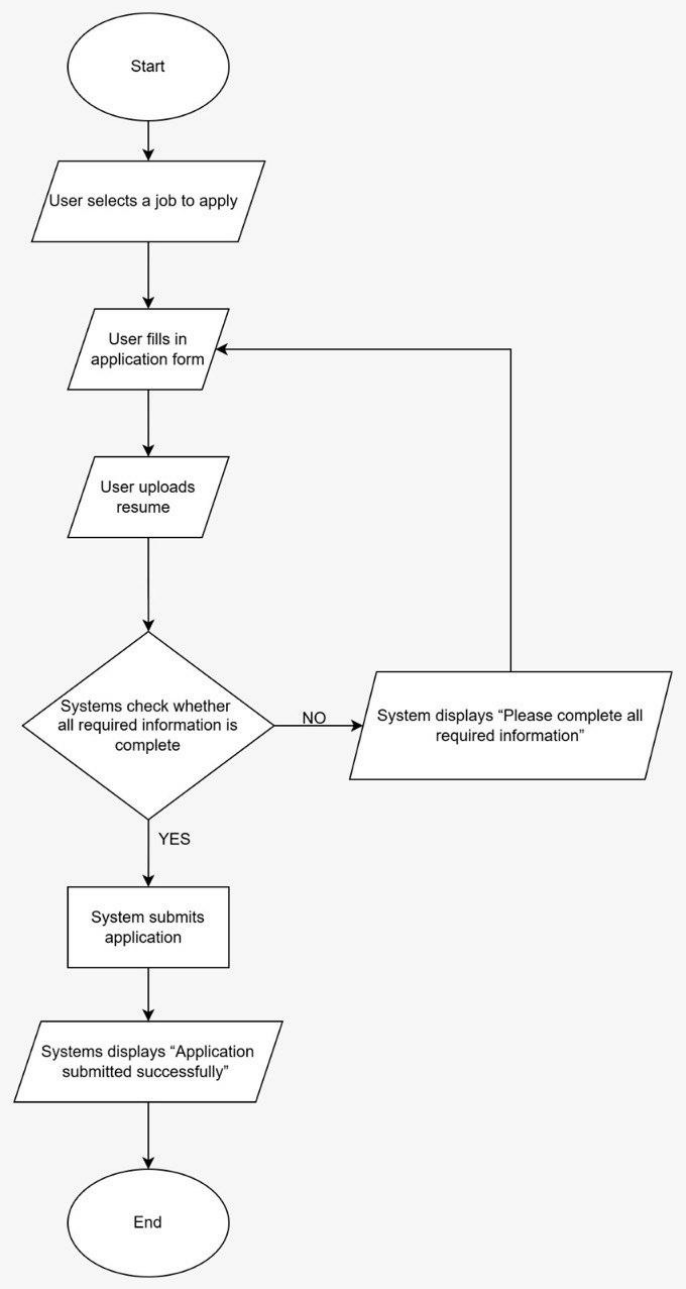

Figure 2.4.2 – Flowchart for Job Application Submission Functionality

2.5 Application Tracking and Status Management

This system shall allow job seekers to check the status of their applications that they have submitted through the website. The user will be able to choose the “My Applications” menu once they are able to log into the website. The system will fetch the corresponding data of the applications and determine the status of approval of the applications. The status will be shown as “Approved,” “Rejected,” or “Pending Approval,” depending on the application being approved or not.

2.5.1 Pseudocode

```
Start
    User logs into system
    User selects "My Applications"
    System retrieves application details
    System checks approval status
    If application is approved then
    System displays status as "Approved"
    Else if application is rejected then
    System displays status as "Rejected"
    Else
    System displays status as "Pending Approval"
    End if
End
```

Table 2.5.1 – Pseudocode for Application Tracking and Status Management Functionality

2.5.2 Flowchart

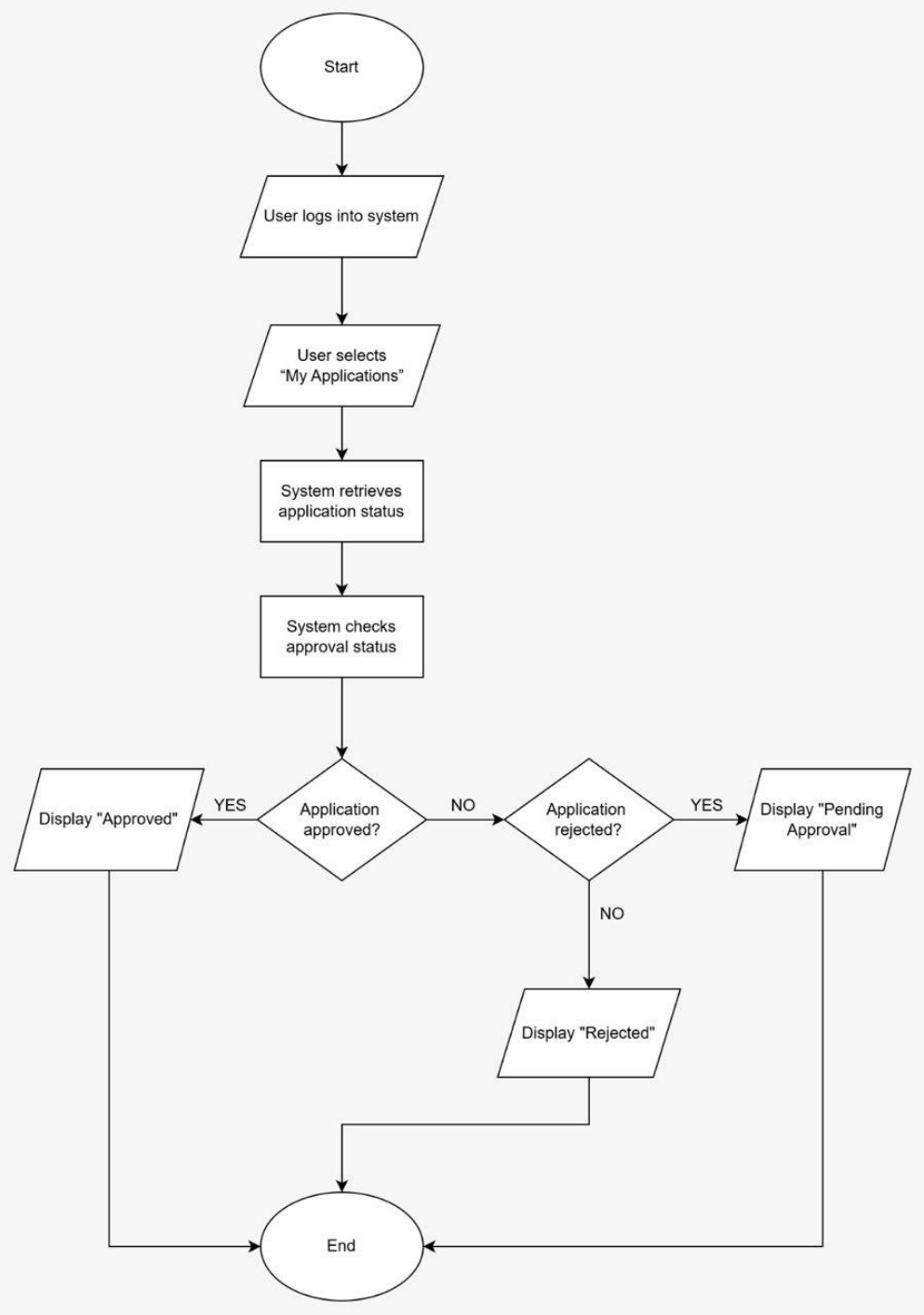

Figure 2.5.2 – Flowchart for Application Tracking and Status Management Functionality

3.0 References

Laudon, K. C., & Laudon, J. P. (2020). *Management information systems: Managing the digital firm* (16th ed.). Pearson. https://www.pearson.com/en-us/subject-catalog/p/management-information-systems-managing-the-digital-firm/P200000003256

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GitHub Link : https://github.com/sunagyu/Group-12.git