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# Time-shift Management System

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**Abstract**: Woody House is a restaurant that is located in Kampar. The restaurant is still using Microsoft Excel in creating the work schedule. The problems that are facing by the restaurant included the work schedule created using Microsoft Excel is not effective because of time consuming, caused wastage in company resources for assigning extra employees in certain shift and the employees may miss out the work schedule distributed in the Whatsapp group. The target users are the manager and employees in restaurant. Prototyping model is applied in the project development. The proposed system was designed as web-based system. The system will allow the users to register, login and manage users' own account. The system will also allow the manager to manage employee, work schedule and generate schedule report while the employees should able to view and request change in the work schedule. The system has functionality to create announcement to users when change request is made or work schedule created.

**Keywords**: Management, Scheduling, Web-Based, Work Schedule

## 1. Introduction

Work schedule is very important as it is used as a timetable that every employee will need to follow and obey so that the flow of the business processes is not affected. The employer is required to create a work schedule and inform every employee to ensure that the business processes of the company running smoothly. The employees are also required to take note the shift that are assigned to them. Generally, the employees will be informed about their work schedule after they are being hired. To manage the work schedule of a new employee, the employer may need to refer back to the criteria for creating a new work schedule manually. After the new work schedule is created, the employer should inform the employees through certain channels. Thus, the employees will need to pay attention of any messages shared within the channel used and take notes whenever the work schedule is shared.

By using Microsoft Excel to create work schedule manually is time consuming and the work schedule created may not satisfying sometimes. Besides, it will cause wastage in company resources if the resources assigned in certain shift excess the expected resource that will be used. According to the author of EconomicPoint [1], states that the company's resource is referring to human resource, material resource, financial resource and intangible resource. In this situation, only human resource, material

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resource and financial resource are possible to be affected if the work schedule created is not good in planning. Furthermore, although the work schedule will be distributed in Whatsapp group by the manager, but it cannot be guaranteed that the employees have read the work schedule and remember it. Thus, it may cause serious impact in the business processes as lacking in manpower in certain shift will give negative effects to the productivity and also affecting the profits gained.

In order to handle current issues of work schedule for Woody House, the Time-shift Management System is proposed. The objectives of this project are to analyze, design and develop a Time-shift Management System.

The target users of the proposed system include the manager and employees. This system is proposed to help the manager to manage the work schedule of the employees working in Woody House which located at Kampar. The system is planned to be designed as a web-based system since the users including the employees and the manager can accessed to the work schedule as long as they have a good internet connection. This system should include the modules such as registration, login, manage user account, manage employee, manage work schedule, request change, make announcement and generate work schedule report modules.

By having Time-shift Management System, the manager should be able to create a new work schedule in a shorter period and make a change on the work schedule easily by using the proposed system. Meanwhile, for the employee, the proposed system should able to make announcement about the work schedule has been created. Besides, the proposed system may benefit the restaurant in term of productivity. With the condition of all the employees present in the working time assigned, it will maximize the productivity of the tasks carried out. In short, the profit of restaurant will increase by maximizing the productivity of the employees with the help of the proposed system. Lastly, the proposed system shall benefit the companies which need to create work schedule for their employees frequently. It could reduce time consumed in creating a work schedule and allow the employer to have more time to focus in searching opportunity that may increase the profit of the company.

## 2. Literature Review

### 2.1 Background of Woody House

Woody House is a restaurant that is located in Kampar. Woody House is found on 23 September 2020. Woody House serves their customers with Japanese and Korean cuisine as their main selection. For example, the menu of the restaurant includes Korean Fried Chicken, Bibimbap, Donburi and more. Moreover, the restaurant will provide various sets of meals for their customers. The customers will have various options in ordering depending on whether they want to order either a set of meals or a single meal from the menu. Besides, the restaurant also provides a delivery service to their customers by collaborating with FoodPanda.

In order to maximize the profit for the restaurant, the productivity of restaurant requires an upgrade. One of the ways to increase their productivity is by managing the working time of the employees effectively. For Woody House, the work schedule is created by the Manager of Marketing. The work schedule in Woody House is created using Microsoft Excel.

Before assigning the employees in the work schedule, the employees are categorized into full-time worker and part-time worker. Then, the employees are further divided according to their experience. Next, the employees will be assigned a suitable shift after they have been categorized. After the work schedule is created, the work schedule will be shared to the employees through a message in their Whatsapp group. Subsequently, the employees can refer to the work schedule shared in the group and take notes about their working time.

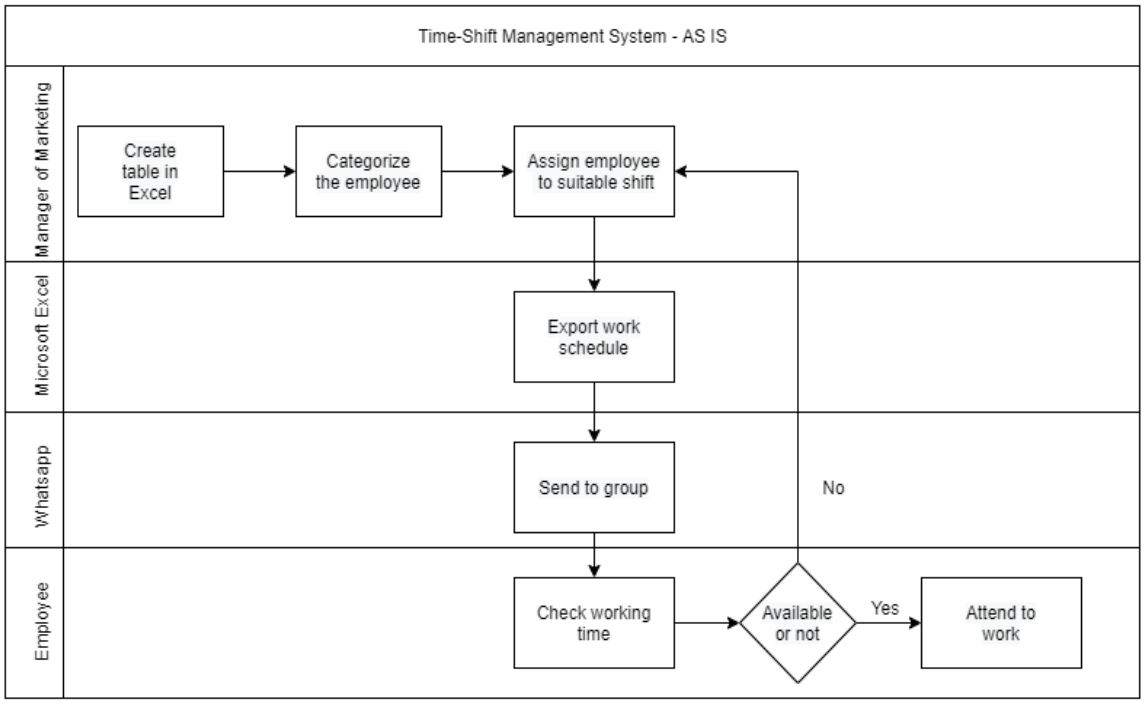


**Figure 1: AS-IS Model**

Figure 1 shows the AS-IS model that representing the current existing process in creating the work schedule. Firstly, the Manager of Marketing will create a new table in Microsoft Excel. Before assigning the employees in suitable shift based on their experiences, they are being categorized into full-time or part-time employees. Then, Microsoft Excel will do the work to export the work schedule. The work schedule exported is then sent to Whatsapp group for every employee to refer their working time. If the employees are not available during their assigned shift, they need to inform the manager. The manager will rearrange the work schedule and send to the group again. If all of the employees are available for their assigned shifts, they should attend to work following the work schedule.

## 2.2 Technology used in this project

In order to schedule the working time of the employees, Ernst *et al.* [2] states that the process of assigning the employees is started with the determination of staffing requirements and ended with the specification of the work to be performed by each employee over some time period. Among the modules stated by Ernst et al. [2,3], Shift scheduling module is considered as the most important module in assigning the employee. This is because this module deals with the problem of selecting from all the employees, what shifts to be worked and assignment of number of employees to each shift, to meet the demand [2].

The proposed system in this project is planned to be designed as web-based system. A web-based system will be accessed by the users via the web browser. When user make some actions, the web browser will request data from a web server and the web server will return the result when the results matched with the request is found in the server. The performance of a web-based system is closely related to the Internet connection.

Dissanayake and Dias [4,5] state that the static websites evolved by incorporating with server-side development languages like PHP or JAVA and the client-side processing languages such as JavaScript. With the help of server-side and client-side application components, the website will evolve to web-based system, which is also known as web application, that is capable in processing and producing the information.

Löfberg and Molin [6] state that there are a few advantages gained by using web-based system. Firstly, web-based system is platform independent since the system can be accessed through a web browser regardless of the user's operative system. Besides, the system can be updated and deployed easily as the user has a stable internet connection.

Meanwhile, the disadvantage of using web-based system is very obvious. The system is very dependent on stable internet connection. If the user has loss the internet connection, the system will lose some functionalities at the moment the information cannot be updated during the internet connection lost.

### 2.3 Web-based Scheduling System of Computing and Information Services at Texas A&M University

Student Computing Center (SCC) is opened by Computing and Information Services (CIS) at Texas A&M University in fall 1998 [7]. Before this system is developed, the work schedule of the student workers employed is managed by the lab supervisor by hand. The processes of handling the scheduling process by hand are not effective because all of the student workers employed will be taken in consideration in every process.

Ringham [7] states that the Web-based Scheduling System will provide a few features in managing the work schedules. Firstly, schedule requests which is a process that allow the students in requesting the working time they are available. Lab hours, priority system, number of hours scheduled and additional comments are the factors included in schedule requests to aid the students in clarifying their available working time more detailly. Next, setting available hours, viewing all requests and administering the employee's schedule are the tools that may guide the supervisor in the scheduling process. Besides, the system provides the feature of viewing the schedule in two forms, weekly schedule and daily schedule. Moreover, the system allows student workers to trade hours. The feature of trading hours is supported by factors such as recording the information of giving up hours and taking hours, followed with updating the schedule views and tracking the trading of hours. Lastly, the system also provides features such as several levels of security, special schedules, incorporating all labs, including training hours and additional tools.

With the help of the Web-based Scheduling System, the process of schedule request from the student workers can be simplified and the scheduling process managed by the supervisor will be more effective. However, the capability of Web-based Scheduling System is limited by the database system due to the statistics are not attained easily.

### 2.4 ScheduleSource

Osborn [8] states that ScheduleSource is a web-based product that will provide automated scheduling process. At the University of Wyoming, ScheduleSource will be used in scheduling the student employees, which called lab assistants to staff the computer labs. ScheduleSource will allow the user to assign priority to each "station" as the schedule of the important stations will be assigned first. For each station, each student employee will get a skill level and the skill level regarding each station will increase when the student employee staffed in the relevant lab. ScheduleSource also allows the user to choose the priority of which shifts are filled first by providing the options of shift length, rankings and maximum coverage. Moreover, ScheduleSource provides a feature that can monitor and control the shift swapping. To manage the shift swapping, the user may configure the deadlines that the shift swapping can be proceeded or setting the shift swapping need to be approved. Lastly, ScheduleSource can generate reports about the stations or individuals.

With the help of ScheduleSource, the time consumed in scheduling can be saved because of many processes in scheduling are automated. Besides, fewer errors will occur because of the process included data entry is reduced.

### 2.5 Web-based Workforce Management System for Sainsburys Supermarkets Ltd

Mirrazavi and Beringer [9] state that the Web-based Workforce Management System is designed and developed for Sainsburys Supermarkets Ltd. The Web-based Workforce Management System aims to help Sainsburys Supermarkets Ltd to survive in this challenging market. The system provides a few features to manage the workforce efficiently. Firstly, the system can forecast the work demand accurately. In case, the forecasted resource requirement of Sainsburys Supermarkets Ltd is elicited from estimated store weekly sales. Next, the system can generate a workload based on the forecasted process. The user shall able to access to the workload of individual departments and individual activities within the departments. Lastly, the system can schedule the employees that possessed suitable sets of skills at the right time respecting all contractual, business and operational constraints.

The Web-based Workforce Management System can increase the revenue gained by the company and improve shareholder returns. Besides, the system shall allow the company to spend more time on customer-focused activities because the system is automated. The schedule created shall be free from many errors since forecasting of work demand is conducted before the scheduling process.

### 2.6 Time-Shift Management System

Time-Shift Management System is designed and developed to manage the work schedule of Woody House, which is a restaurant located in Kampar. The system will provide a few features in aiding the Manager of Marketing managing the work schedule. The system shall able to register the staff of restaurant as users of the system. After registration is successful, the staff can login and logout the system. The system shall allow the Manager of Marketing to manage the information of the employees while the system shall only allow the employee to view, request change and manage their user account. Besides, the system shall enable the Manager of Marketing to manage the scheduling and producing shift scheduling report. Lastly, the system shall display a message whenever the work schedule is created.

Time-Shift Management System is able to save the time of Manager of Marketing and allowing him to spend more time in business-related activities and also figuring out the ways to promote the cuisine. Besides, the system can increase the productivity of the restaurant and thus increasing the profit of the restaurant.

## 3. Methodology

Prototyping model is the software process model used in developing the proposed system. This model is used when the requirements is not being clarified exactly. Stakeholders are sometimes having difficulty in pointing out the requirements that need to be included in the developing system. The project team needs to resolve the difficulty and converting them into prototypes. The prototypes will be improved according to the stakeholders' needs as the system is under development [10].

Prototyping model is chosen because this model is "highly targeted in clarifying the specifications and it is the basic crucial part when considering the communication between project crew and project owner" [11]. Prototyping model consists of a few phases in the Software Development Life Cycle (SDLC) to develop the proposed system. The phases included in prototyping model are planning, requirement analysis, design, implementation and testing. Moreover, the prototyping model is iterative that enable the developed prototypes to be improved to fulfil the requirements of the stakeholders [12].

### 3.1 Planning

Planning phase is the first phase in the Software Development Life Cycle (SDLC). In the planning phase, it is essential to identify the stakeholder. Next, the title of the proposed system will be

decided. Then, all of the phases that will be included in developing the proposed system are determined and all the phases will be taken into consideration to create a Gantt chart. For the phases after planning phase, all of them should be proceeded following the Gantt chart to prevent delay in completion of the project.

### 3.2 Requirement Analysis

In the analysis phase, the information obtained from the stakeholder are analyzed. The information will be collected using interview technique. The information collected will then be analyzed and the requirements will be extracted from it. After eliciting the requirements, a few diagrams such as use case diagram, activity diagram, sequence diagram and class diagram will be created. Moreover, Requirement Traceability Matrix will be created to trace the requirements processed on the developed system too.

### 3.3 Design

In the design phase, the user interfaces and databases will be designed. The user interfaces will be designed by considering a few aspects. The aspects to be considered should include aesthetics, consistency, layout and minimizing user effort to use desired function. Besides, the database for the system will be designed to prevent data redundancy from occurring.

### 3.5 Implementation

In the implementation phase, the code for the proposed system will be created. The code to be developed should consider about the requirements of the stakeholder. The functionalities of the system in development should include the elicited requirements that have been discussed in previous phases. Moreover, the interfaces of the proposed system and the database of the system should refer to the images that have been created in the design phase.

### 3.6 Testing

In the testing phase, the code developed will be verified and validated whether it followed the requirements that have been stated in previous phases or not. There are a few test cases will be prepared in testing the functionalities of the code. Other than that, the potential user for the system will be requested to try using the system and this is known as user acceptance testing.

### 3.7 Data gathering

Interview is the technique that used in collecting the information from the stakeholder. Firstly, the type of the interview to be used is determined and structured interview is the chosen type to be used. After choosing the type, a set of questions is prepared to collect the requirements. Then, the interview session will be conducted and follow-up need to be done after the interview session.

### 3.8 Gantt chart

Gantt chart that states the duration which is planned for the activities involved in developing the proposed system.

## 4. Analysis and Design

### 4.1 Functional requirement analysis

**Table 1: Functional requirements of the proposed system**

| Module | Functionality |
|---|---|
| Registration Module | The system should allow the new users to register a new account. |

**Table 1: Functional requirements of the proposed system (cont.)**

| | |
|---|---|
| Login Module | The system should allow the users to login to system using username and password.<br>The system should redirect users to their respective main page once successful login. |
| Manage User Account Module | The system should allow the users to change their username or password.<br>The system should save the changes made in the database. |
| Manage Employee Module | The system should display the details of employee.<br>The system should allow the manager to add, update or delete employee's information.<br>The system should save the changes made by the manager in database. |
| Manage Work Schedule Module | The system should display the work schedule details.<br>The system should allow the manager to add new details, update the details or delete details in the work schedule.<br>The system should save the changes made by the manager in database. |
| Request Change Module | The system should allow the employee to make a request on changing the working shift that have assigned to them.<br>The system should save the request made and can be displayed to manager. |
| Make Announcement Module | The system should display different messages according to the manager and the employee respectively. |
| Generate Scheduling Report Module | The system should generate a work schedule report after the manager selected a schedule.<br>The system should display the report generated to the manager. |

## 4.2 Non-functional requirement analysis

**Table 2: Non-functional requirements of the proposed system**

| Requirement | Description |
|---|---|
| Performance | The system should be able for use anytime.<br>The interaction between the user and the system should not be more than 5 minutes. |
| Operational | The system should able to be accessed on any web browser.<br>The system should be user friendly. |
| Security | Users can only access their own account by using valid username and password. |

## 4.3 Use Case Diagram

There are two actors and nine use cases are included in the Use Case Diagram. For every single use case, it will be discussed in the use case specification section. Use Case Diagram will be shown in Appendix A.

### 4.3.1 Requirement Traceability Matrix

There are nine requirements are included in the proposed system. For every requirement, it will be discussed within the Requirement Traceability Matrix. Requirement Traceability Matrix will be shown in Appendix A.

## 4.4 Database design

In this section, the design of the database table will be discussed. Four tables have been created including Employee, Schedule, Request and Announcement tables.

There are ten attributes in Employee table. The primary key in this table is emp_Id, which is a unique ID assigned to every employee. The personal information of the employees including name, phone number and email is also saved in this table within the attributes emp_name, emp_phone_no and emp_email. Besides, username and password owned by every employee to login to the system is saved in this table too. In addition, the table also saves the information of job title assigned to the employees, their work experience in certain job title and the type whether they are full-time or part-time employees. From the information related to the job, the manager can determine whether the employee can be a leader or not and make a decision. The decision about the leadership of the employee is also saved in this table.

In Schedule table, there are thirteen attributes included. The primary key of this table is schedule_id, which is a unique ID assigned to every work schedule. The foreign key of this table is emp_id. This table contains information such as working date of the work schedule, starting and ending time for both morning and night working shift. This table also saves the information of which employee will be working shift leader for kitchen and bar side on that day. Moreover, the information of employee assigned to morning and night working shift according to their job title is recorded too.

There are eight attributes included in Request table. The primary key of this table is request_Id, which is a unique ID assigned to every change request. In addition, emp_Id and schedule_Id are the foreign keys included in this table. The date requested to change, name of employee who made request, the reason of requesting change and any further description for the reason chosen for every change request are also saved in this table. The status, such as approved, rejected or pending, of every change request is recorded in this table.

Seven attributes are included in Announcement table. The primary key of this table is announce_Id, which is a unique ID assigned to every announcement. Meanwhile, request_Id, emp_Id and schedule_Id are the foreign keys included in this table. This table also saves the content or message of the announcement and date of the message is created. Moreover, the table also save the information about the certain message should display to manager, employee or both of them.

## 4.5 Interface Design and Implementation

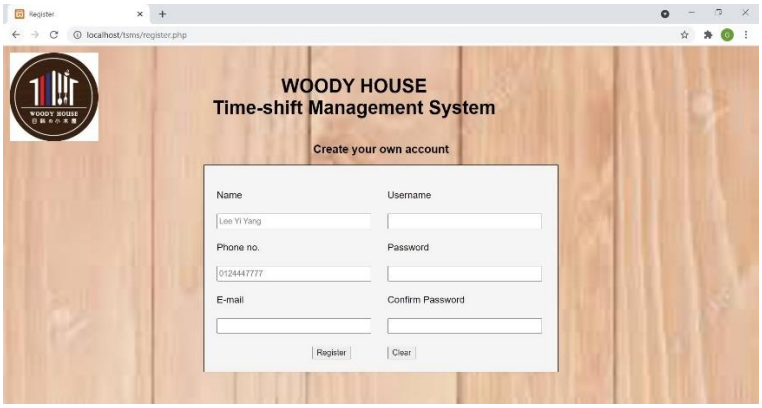


**Figure 2: Register Page Design**

Figure 2 shows the interface design for Register Page. The user is required to fill in all the text fields to create a new account.


**Figure 3: Login Page Design**

Figure 3 shows the interface design of the Login Page. User is required to fill in username and password followed with clicking 'Login' button to login to the system. Two links are provided in this page which are 'Forgot password?' and 'Register a new account'. When user clicks 'Forgot password?', the user can reset their password. When the user clicks 'Register a new account', the system will move to Register Page.

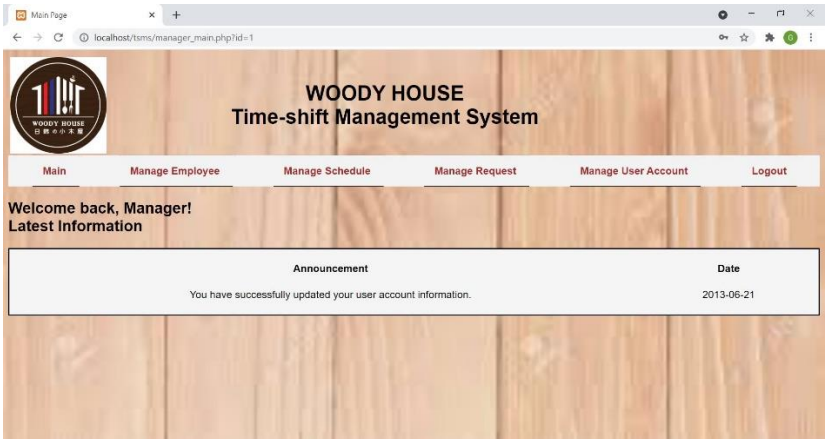


**Figure 4: Manager Main Page Design**

Figure 4 shows the interface design of Manager Main Page. After the manager login to the system, the system will redirect him to this page. In this page, a table is displayed which shows the latest information in the system.

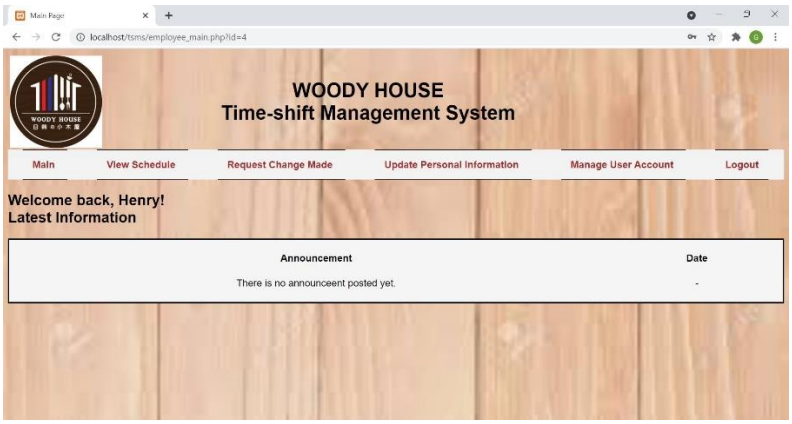


**Figure 5: Employee Main Page Design**

Figure 5 shows the interface design of Employee Main Page. The system will redirect the employee to this page after the employee login to the system. In this page, a table showing the latest information is displayed in the system.

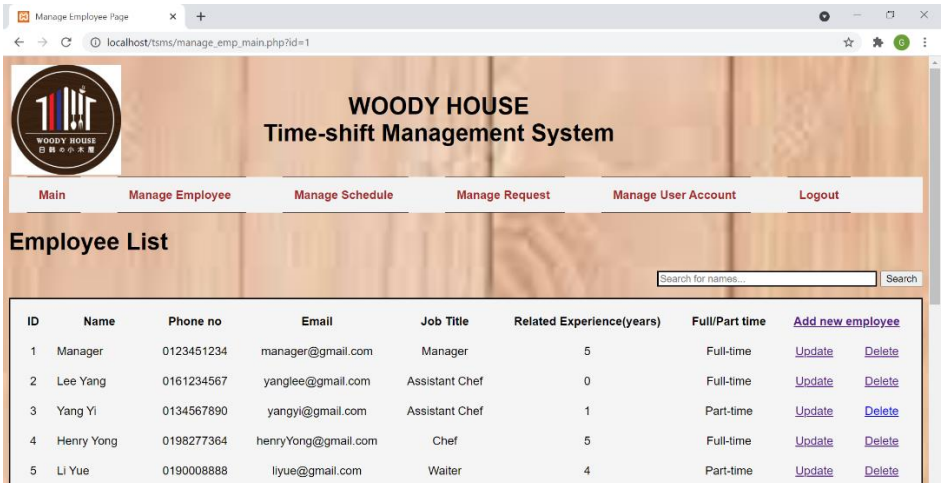


**Figure 6: Manage Employee Page Design**

Figure 6 shows the interface design of Manage Employee Page. The system will allow the manager to add, update or delete the information of employee.

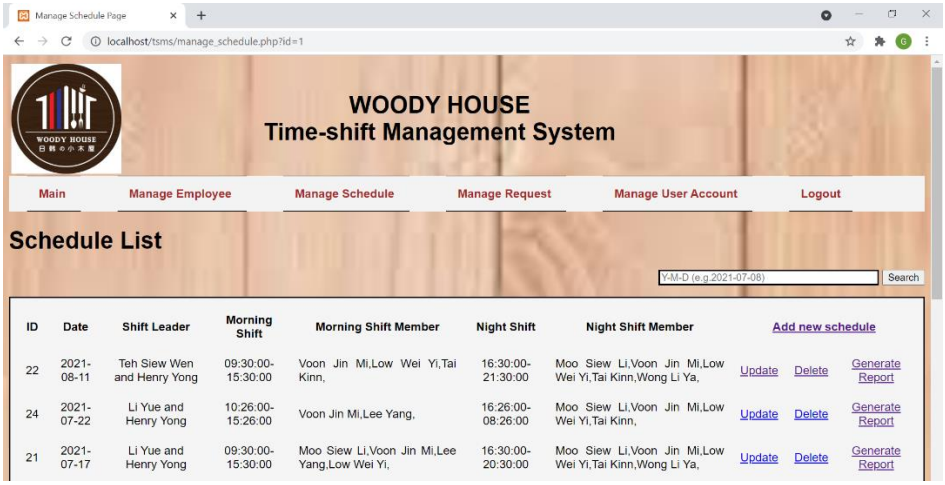


**Figure 7: Manage Schedule Page Design**

Figure 7 shows the interface design of Manage Schedule Page. The system will allow the manager to add, update or delete the information of work schedule. The manager can also generate a report for one work schedule.

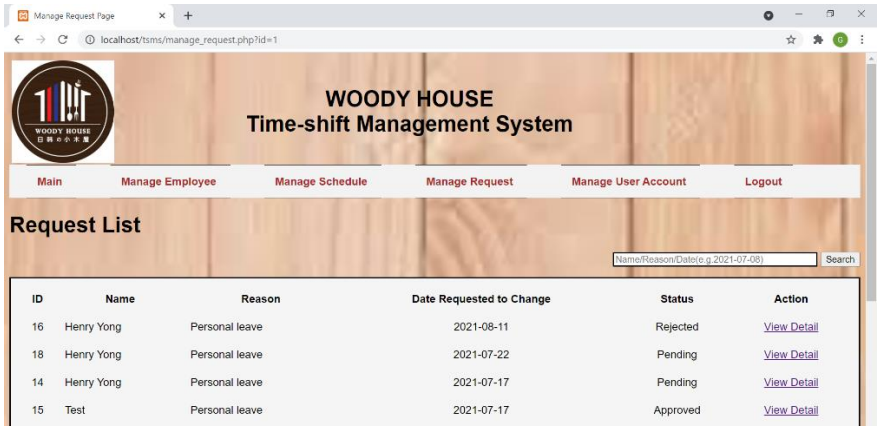


**Figure 8: Manage Request Page Design**

Figure 8 shows the interface design of Manage Request Page. The system will allow the manager to view the detail of the change request after clicking "View Detail" and update the status of the request.

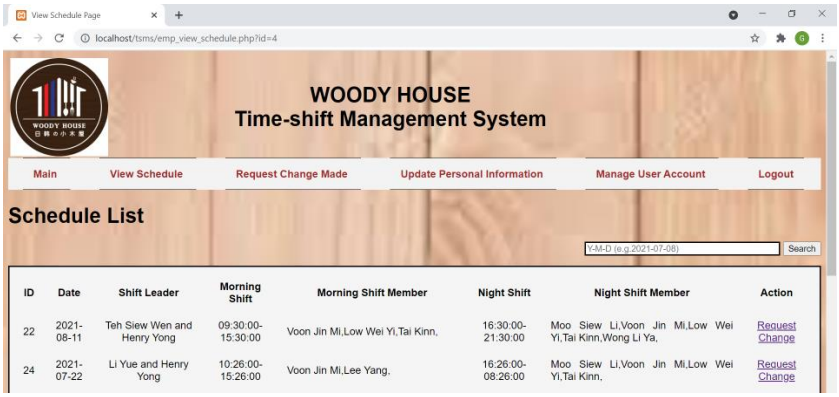


**Figure 9: View Schedule Page Design**

Figure 9 shows the interface design of View Schedule Page. The system will allow the employee to view the detail of the work schedule or redirected to Request Change Page if they clicked "Request Change".

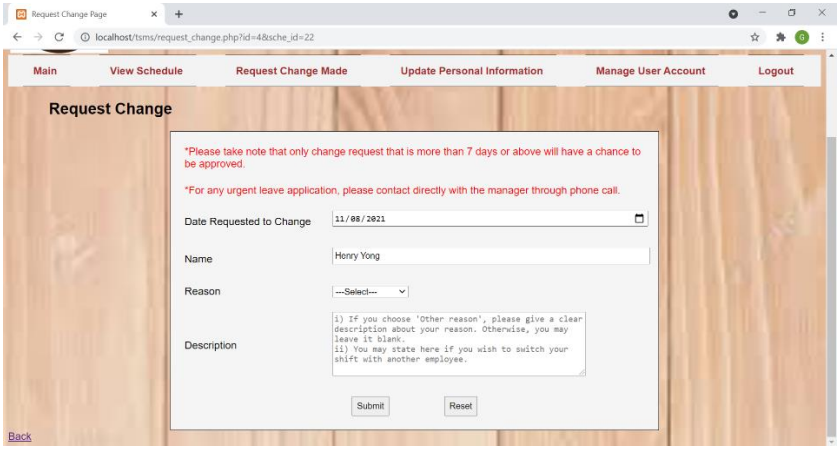


**Figure 10: Request Change Page Design**

Figure 10 shows the interface design of Request Change Page. The system will allow the employee to fill in the detail of the change request and submit to the manager.

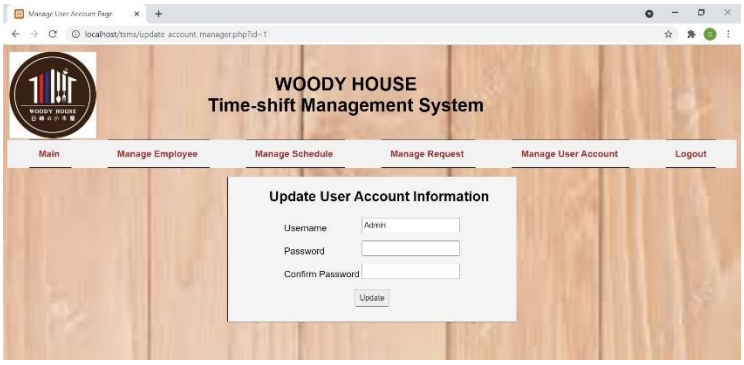


**Figure 11: Manager Update User Account Page Design**

Figure 11 shows the interface design of Manager Update User Account Page. The system will allow the manager to update his user account information.

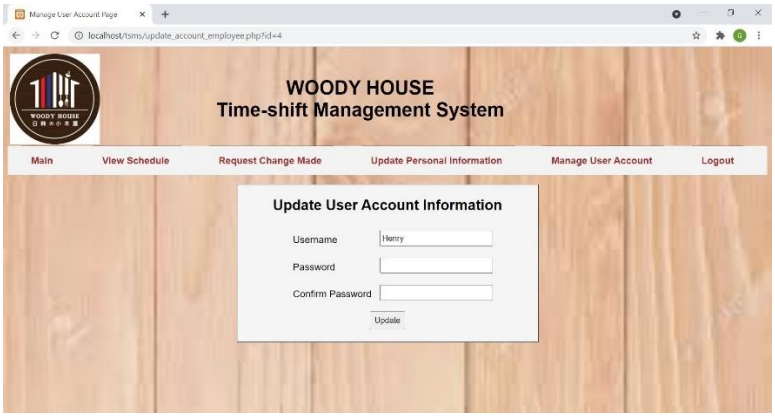


**Figure 12: Employee Update User Account Page Design**

Figure 12 shows the interface design of Employee Update User Account Page. The system will allow the employee to update his user account information.

## 5. Testing

In the testing phase, there are 22 test cases constructed for the testing of Time-shift Management System based on the functions provided by the system. There are 16 test cases will be highlighted from all 22 test cases.

**Table 3: Test Case**

| Test Case ID | Requirement | Description | Result |
|---|---|---|---|
| STD_TEST_100_001 | REQ_101 | The system will register the information of the new users. | PASS |
| STD_TEST_200_001 | REQ_201 | The system will allow the user to login to the system. | PASS |
| STD_TEST_300_001 | REQ_301 | The system will allow the manager to add the information of new employee. | PASS |
| STD_TEST_300_002 | REQ_302 | The system will allow the manager to delete the information of existing employee. | PASS |
| STD_TEST_300_003 | REQ_303 | The system will allow the manager to update the information of existing employee. | PASS |
| STD_TEST_400_001 | REQ_401 | The system will allow the manager to add the information of new work schedule. | PASS |

**Table 3: Test Case (cont.)**

| | | | |
|---|---|---|---|
| STD_TEST_400_002 | REQ_402 | The system will allow the manager to delete the information of existing work schedule. | PASS |
| STD_TEST_400_003 | REQ_403 | The system will allow the manager to update the information of existing work schedule. | PASS |
| STD_TEST_500_001 | REQ_501 | The system will display a daily work schedule report. | PASS |
| STD_TEST_500_002 | REQ_502 | The system will allow the manager to download the report in PDF form. | PASS |
| STD_TEST_600_001 | REQ_601 | The system will display the details of work schedule to the employee. | PASS |
| STD_TEST_700_001 | REQ_701 | The system will allow the employee to send the change request. | PASS |
| STD_TEST_700_002 | REQ_702 | The system will allow the manager to view the detail of change request. | PASS |
| STD_TEST_700_003 | REQ_703 | The system will allow the manager to update the status of the change request. | PASS |
| STD_TEST_800_001 | REQ_801 | The system will display the announcement message to the users. | PASS |
| STD_TEST_900_001 | REQ_901 | The system will allow the users to update their user account. | PASS |

Table 3 shows 16 test cases that have been used to test the functions of the Time-shift Management System and the results for the test cases stated are all pass.

**Table 4: Overall Test Result for Time-shift Management System**

| ID | Total Test Cases | Total Passes | Total Fails |
|---|---|---|---|
| STD_TEST_100 | 2 | 2 | - |
| STD_TEST_200 | 2 | 2 | - |
| STD_TEST_300 | 4 | 4 | - |
| STD_TEST_400 | 4 | 4 | - |
| STD_TEST_500 | 2 | 2 | - |
| STD_TEST_600 | 1 | 1 | - |
| STD_TEST_700 | 4 | 4 | - |
| STD_TEST_800 | 1 | 1 | - |
| STD_TEST_900 | 2 | 2 | - |
| Total | 22 | 22 | - |

Table 4 shows a total of 22 test cases that have been performed to test the Time-shift Management System and the system has passed all of the test cases.

## 6. Conclusion

The main outcome of this project is the system, Time-shift Management System. The functionalities of the system are fully achieved. As a result, it helps the manager to manage the information of the employees and work schedules in a more effective way. This may indirectly increase the productivity of the employees and improving the sales of the restaurant.

By using the proposed system, the system will provide a form that have been divided into morning and night working shift part with a clear view of employee list categorized by their job title. The system will help to reduce redundancy that may happen during assigning of employee. The reducing of the redundancy will also prevent the wastage of resources from occurring. In this system, all the updates related to the work schedule will be listed in the Main page of users. The users will have a lower chance to be missed out from noticing the information of any updates or creation of work schedule.

Although the system has achieved all the objectives, a few of certain functions are not being developed due to some limitations. One of it is the system could only allow the update of work schedule information manually by the manager after approving the change requests of the employees. Besides, the system could only generate one-day work schedule report for existing work schedule. Next, the system could only allow the change requests to be sent if the working shift of certain date requested to be changed from current date is more than seven days.

In future, there are some improvements that can be done to allow the system to work more effectively and contribute to the restaurants. The improvement that can be done is the system will update the work schedule information automatically after the manager approves any change requests. Besides, the system will also able to generate a ranged work schedule report which may include a range of days for the existing schedule. Moreover, the system will able to accept and handle the change requests which is requested in less than seven days between the date requested and current date.

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## Appendix A

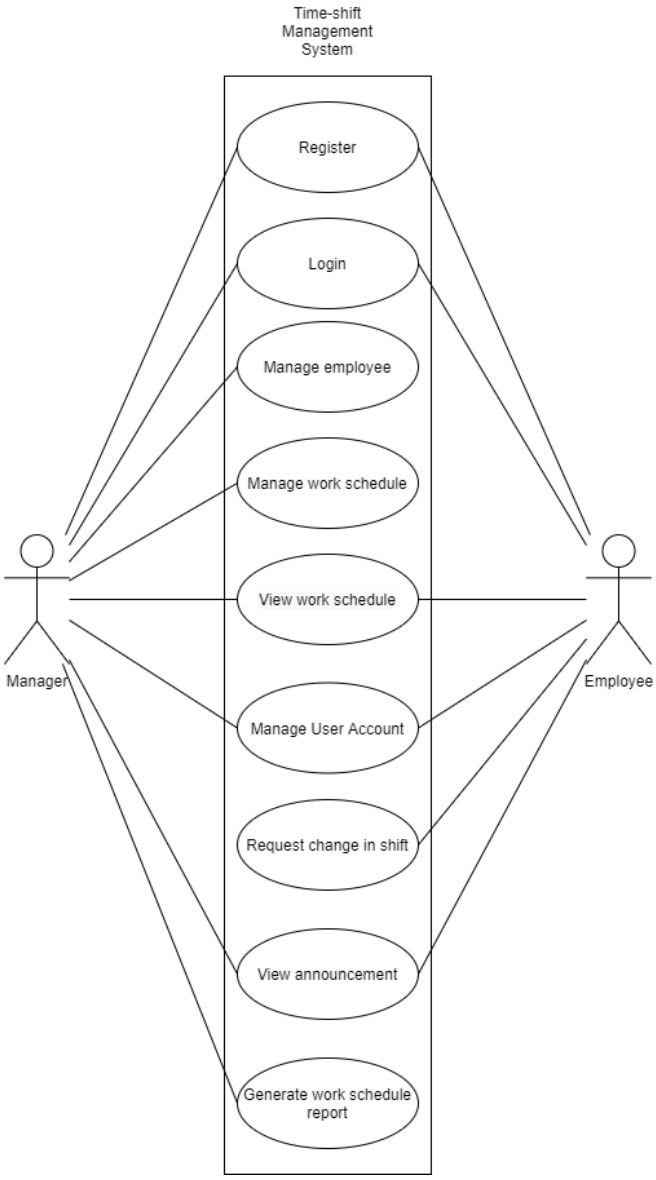


**Figure 13: Use Case Diagram**

**Table 5: Requirement Traceability Matrix**

| Allocation | Description |
|---|---|
| REQ_100 | Register |
| FR01-01 | The system will register the information of the new users. |
| CR01-01 | The system will only allow the user to be registered if the e-mail, phone number and username filled in are different from the existing data in database. |
| REQ_200 | Login |
| FR02-01 | The system will allow the user to login to the system. |
| CR02-01 | The system will only allow the user with correct username and password to login to the system. |

**Table 5: Requirement Traceability Matrix (cont.)**

| | |
|---|---|
| REQ _300 | Manage Employee |
| FR03-01 | The system can display the employee list to the manager. |
| FR03-02 | The system will allow the manager to add the information of new employee. |
| FR03-03 | The system will allow the manager to delete the information of existing employee. |
| FR03-04 | The system will allow the manager to update the information of existing employee. |
| CR03-01 | The system will only proceed to next process if all the required text fields are filled in. |
| REQ _400 | Manage Work Schedule |
| FR04-01 | The system can display the work schedule list to the manager. |
| FR04-02 | The system will allow the manager to add the information of new work schedule. |
| FR04-03 | The system will allow the manager to delete the information of existing work schedule. |
| FR04-04 | The system will allow the manager to update the information of existing work schedule. |
| CR04-01 | The system will only proceed to next process if all the required text fields are filled in. |
| REQ _500 | Generate Work Schedule Report |
| FR05-01 | The system will display a daily work schedule report. |
| FR05-02 | The system will allow the manager to download the report in PDF form. |
| CR05-01 | The system will only allow the report of existing work schedule to be created. |
| REQ _600 | View Work Schedule |
| FR06-01 | The system will display the details of work schedule to the employee. |
| CR06-01 | The system will not allow the employee to alter the data of work schedule. |
| REQ _700 | Request Change in Working Shift |
| FR07-01 | The system will allow the employee to send the change request. |
| FR07-02 | The system will allow the manager to view the detail of change request. |
| FR07-03 | The system will allow the manager to update the status of the change request. |
| CR07-01 | The system will only allow the employee to send change request if the requested date from current date is more than seven days. |
| REQ _800 | View Announcement |
| FR08-01 | The system will display the announcement message to the users. |
| CR08-01 | The system will only display specific announcement message to respective user. |
| REQ _900 | Manage User Account |
| FR09-01 | The system will allow the users to update their user account. |
| CR09-01 | The system will not enter next process unless the users enter same values for “Password” or “Confirm Password” text field. |

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