



FAKULTI TEKNOLOGI MAKLUMAT DAN KOMUNIKASI

SEMESTER 1 2020/2021

WEB APPLICATION DEVELOPMENT (BITM2113)

PROJECT TITLE: Req N Go

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1. Introduction

As we all know, the world is now attacked by a disease known as Novel Coronavirus (COVID-19). The disease was first reported to the World Health Organization (WHO) on 31 December 2019, in the city of Wuhan, Hubei province in China. The disease is so dangerous that it can lead to death. After (WHO) made some research, they found that this disease is very easy to spread, especially through the mouth, eyes and nose. Global coordinated efforts are needed to stop the spread of the virus further. The whole country is taking proactive steps to prevent the spread of the disease. Pandemics are defined as "occurring over a wide geographical area and affecting a very high proportion of the population."

The virus that causes COVID-19 infects people of all ages. However, evidence so far shows that two groups of people are at higher risk of getting severe COVID-19, namely the elderly people and people with serious chronic illnesses. The Malaysian government has made a drastic decision to announce a Movement Control Order (MCO). During MCO people need to follow some Standard Operating Procedures (SOP) that have been determined by the Malaysian ministry of health. Among the SOPs given is that the people cannot arbitrarily cross state borders. However, only citizens with strong reason can cross the border. People have need to go to the police station to apply for crossing the border. In this way, many people have taken the opportunity to apply at the police station. They line up and gather to make applications. this is very worrying as it increases the chances for the virus to spread.

To overcome this situation, we would like to propose to build a website that makes it easier for people to apply to cross the border. By applying this website, we can reduce the spread of this disease in our country. This is also in line with the country's move to implement a "paperless" program and give birth to a generation that is "IT Literate". On the website, we also will implement chatbot to help the user to know the current situation. The user can ask the chatbot for example "What is the total cases for today". This will make it easier for users to find information about COVID-19.

2. Problem Statement

- People are exposed to the threat of covid-19 when they must go to the police station to apply for crossing the border form.

- Chances of people following SOP are low when the police stations are crowded with people.
- Going to the police station takes too much time as it might be a problem to those requesting to cross the border due to urgent matter.

3. Objective

Our objective is to enable one click request to cross the border without going to the police station. It is hassle-free and less time consuming. Besides, we can get statistics of people going in or out in certain states.

4. Project Scope

1. Module to be developed

Login

- Administrator and existing member can login by entering correct email and password.

Register

- New user can be registered into system by filling in correct name, email, phone no., nationality, IC/passport no., address, password, and confirmation password.

View

- Administrator can view the request list and member details.

Add

- User can add data into the system by creating a request. Data accessible by user for adding operation are vehicle registration no., mode of transportation, departure date, arrival date, reason, and health status form.

Delete

- Administrator can reject request by delete it from the system. Data accessible for delete operation are requestID, vehicle registration no., mode of transportation, departure date, arrival date, reason.
- Delete user account.

Update

- Administrator can update the request by changing pending to approve or reject. User can update their health status.

- User can update their own profile.

Search

- Admin can search for request ID and report ID.

Calculate

- The system will calculate the total number of people who cross the state for each day to make sure the amount of people cross state will not exceed the limit.

Analyze / Report generation

- System will generate daily report or graph that display total number of people cross state.
- System will generate report for those requests successfully approved.

2. Target User

Administrator

- Able to login to the system as admin.
- View and manage request by approve or reject.
- View members details.
- View total number of people cross state for each day.
- Delete user account

User

- Able to register and login to the system as member.
- View and update own health status form.
- View and manage own request to cross state.

5. Requirement and Functional Analysis

Requirement

Features of system or system function used to fulfill system purpose

Functional Requirements:

- Input/output
- processing
- error handling

Non-Functional Requirements:

- Physical environment (equipment locations, multiple sites, etc.).
- Interfaces (data medium).
- Users and human factors (who are the users, their skills level etc.).

- Performance (how well is systems functioning).
- Documentation.
- Data (Qualitative material/information).
- Resources (searching, physical space).
- Security (backup, firewall).
- Quality Assurance (maximum downtime, MTBF, etc.).

6. Flowchart

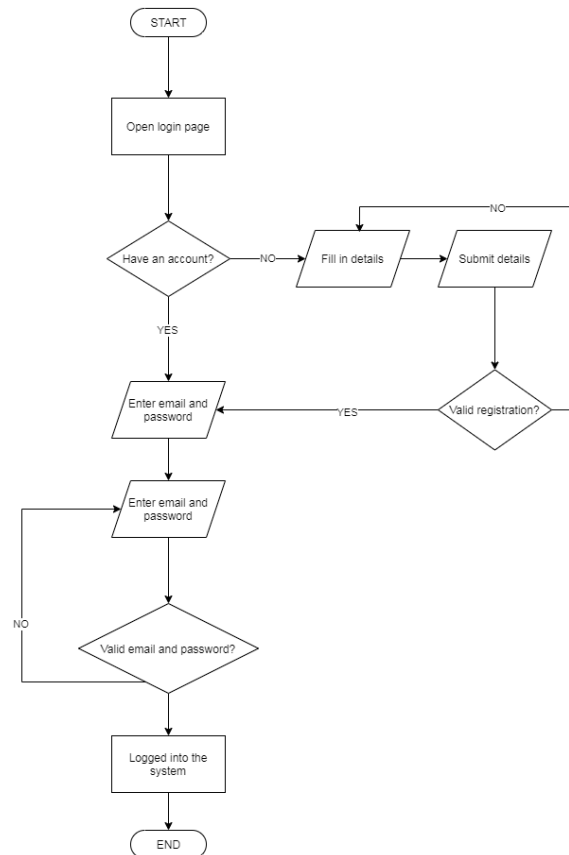


Figure 1 Login Page

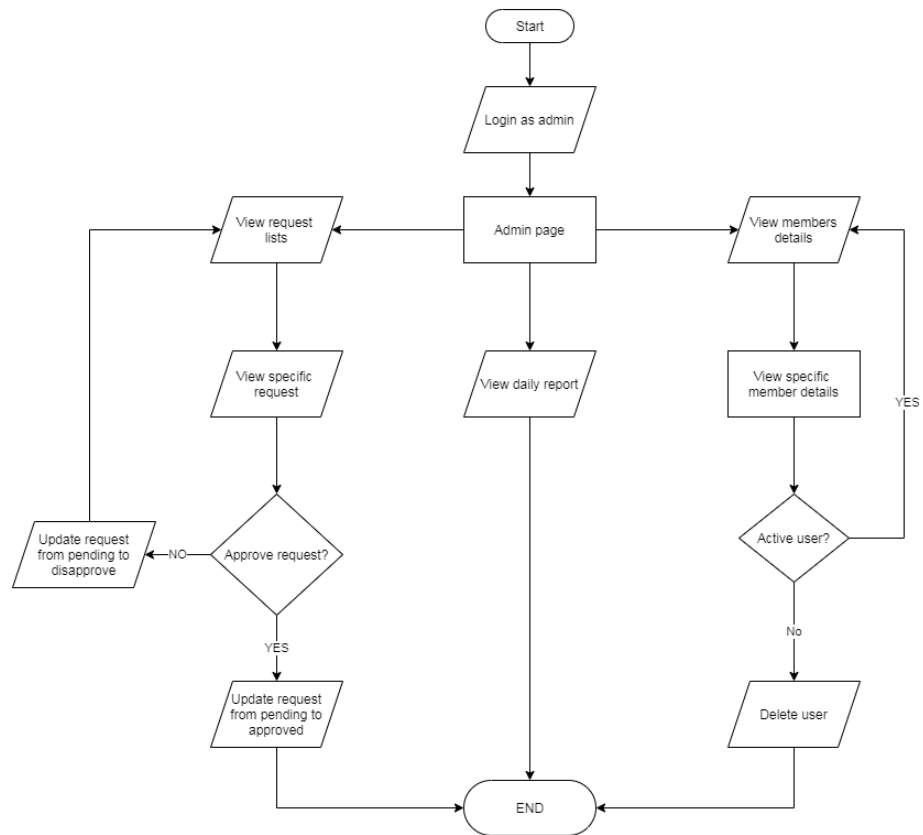


Figure 2 Administration Page

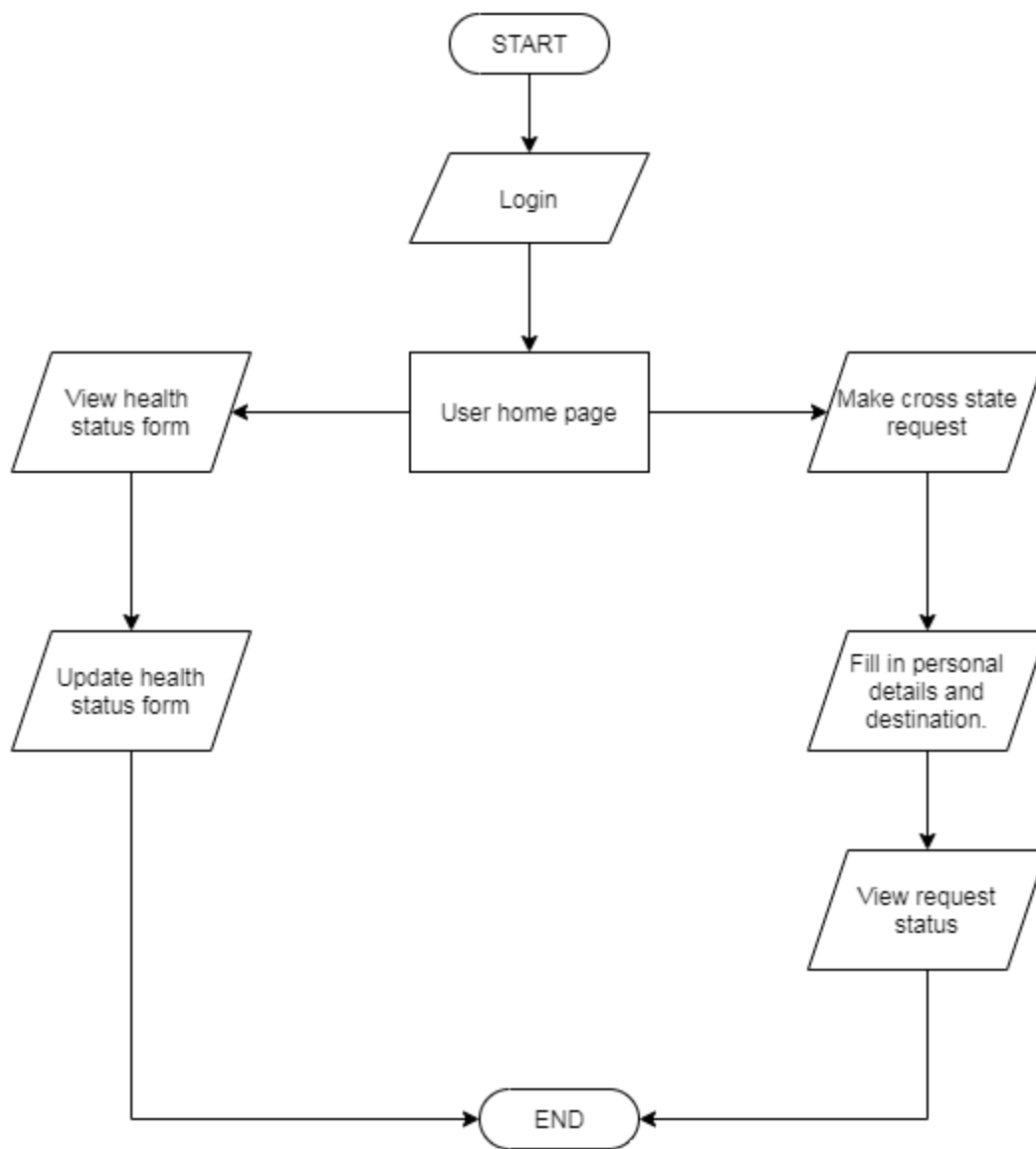


Figure 3 User Page

7. Site Structure Design

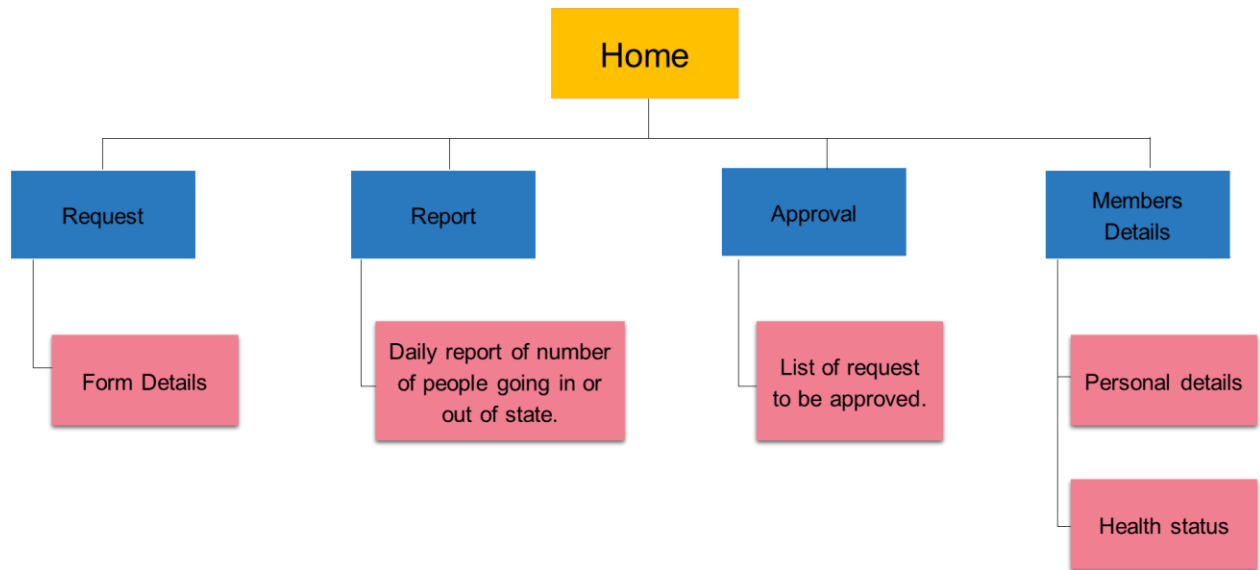


Figure 4 Req N Go Site Structure Design

8. Entity Relationship Diagram

An entity relationship diagram (ERD) illustrates the relationships of entity sets stored in a database. These entities can have attributes that define its properties. By defining the entities, their attributes, and showing the relationships between them, an ER diagram illustrates the logical structure of databases.

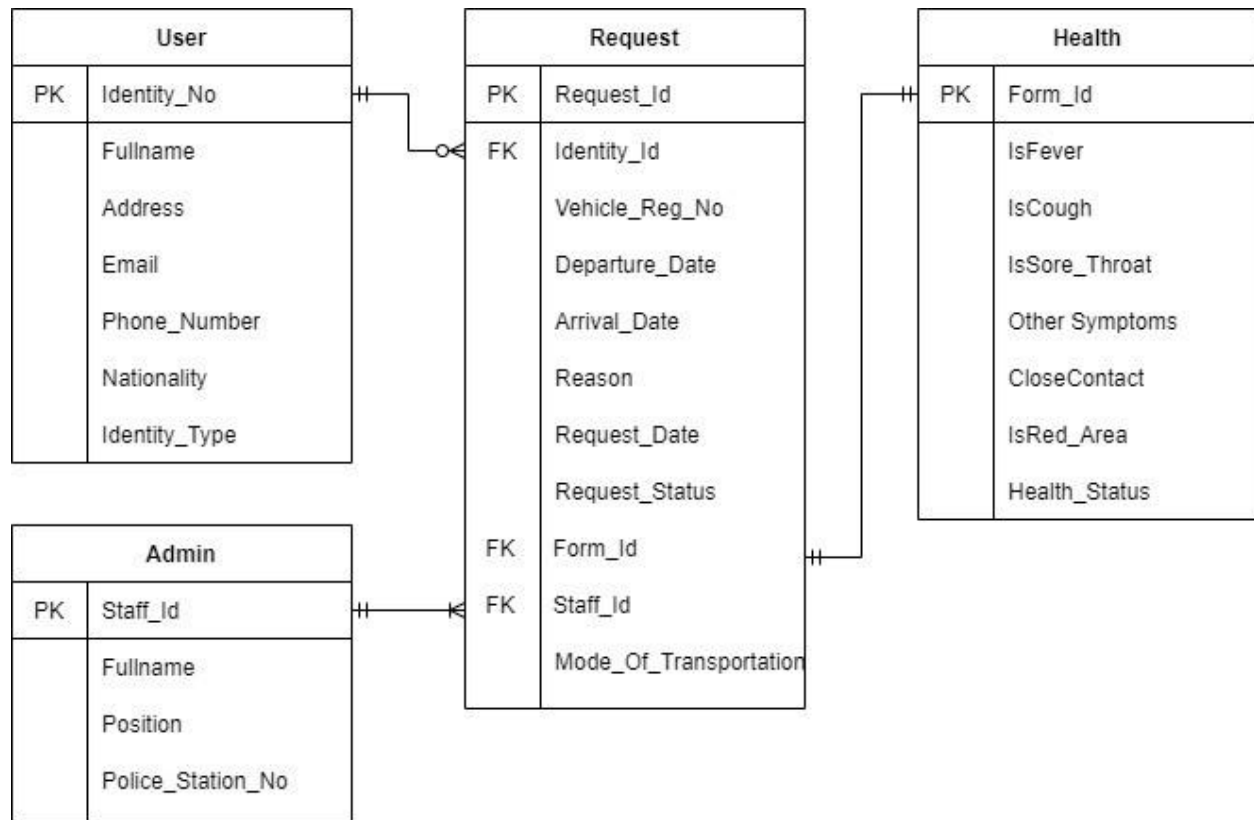


Figure 5 System ERD

Figure XX shows the entity relationship diagram for this system. This system required four entity which is User, Request, Admin, and Health. User table is to stored personal user data. Next, request table is the bridge between table user and table health. Users need to fill in all the attribute in this table and health table before user can across the borders. Health table is to store the user current health status. The last entity is important because only admin cam approve or reject the request from the user.

9. Context Diagram

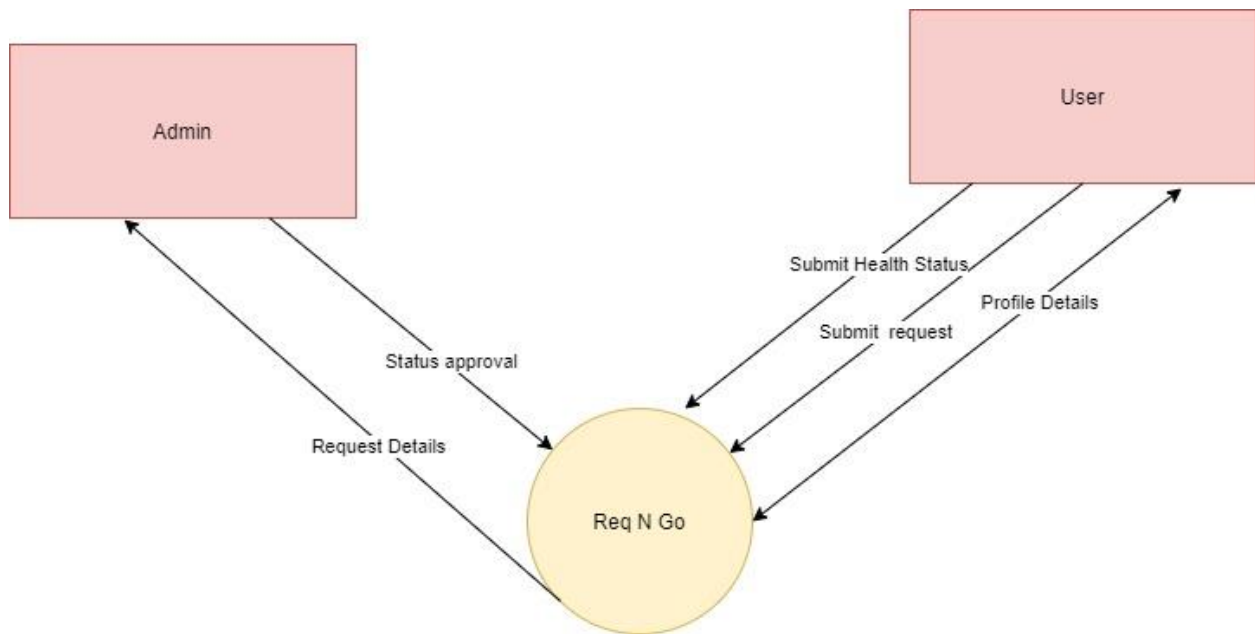


Figure 6 Req N Go Context Diagram

10. Interface Design

11. System Requirement

- **Database: MySQL**
- **Web Server: Apache**
- **Server-side scripting: PHP**
- **Client-side scripting: JavaScript, Css**

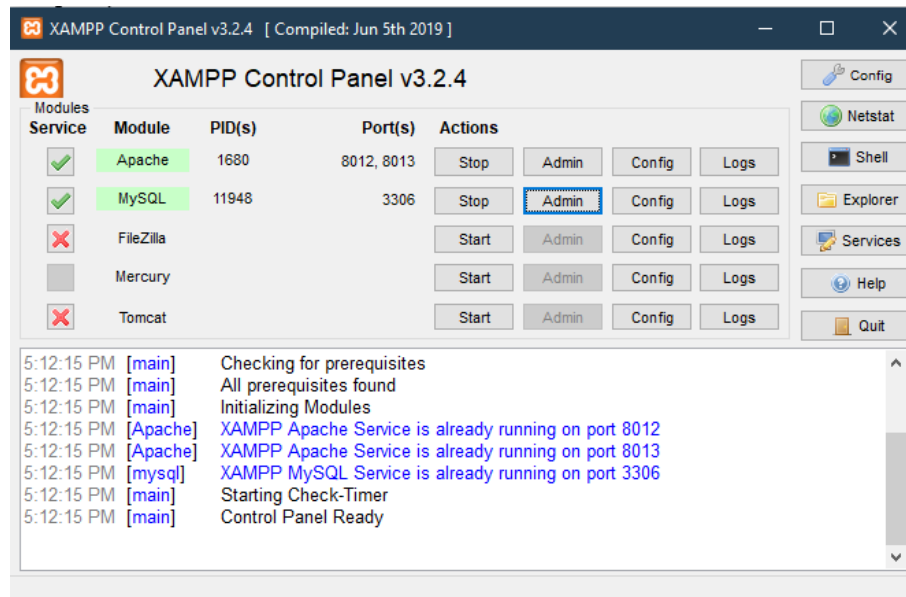


Figure 7 XAMPP Software

12. Coding Implementation

- JavaScript

```

<script type="text/javascript">
function myConfirm(){
    var answer = window.confirm("Please ensure all details are accurate before submitting");
}
</script>
  
```

Figure 8 Snipped Code for JavaScript

- PHP

```

<?php
session_start();
require "config.php";

$Identity_No = $_SESSION["Identity_No"];

$fetch_profile = "SELECT p.Fullname, p.Address,p.Email, p.Phone_Number,p.Nationality,p.State,p.Area, p

$profile = mysqli_query($conn,$fetch_profile);
$user_profile = mysqli_fetch_assoc($profile);

if(isset($_POST['update'])){
    print "You pressed Button 3";
    if (isset($_POST['fullname']) && isset($_POST['email']) && isset($_POST['phone']) && isset($_POST

        function validate($data){
            $data = trim($data);
            $data = stripslashes($data);
            $data = htmlspecialchars($data);
            return $data;
        }

        $fullname = validate($_POST['fullname']);
        $email = validate($_POST['email']);
        $phone = validate($_POST['phone']);
        $nationality = validate($_POST['nationality']);
        $idnumber = validate($_POST['idnumber']);
        $state = validate($_POST['state']);
        $area = validate($_POST['area']);
        $postalcode = validate($_POST['postalcode']);
        $address = validate($_POST['address']);

```

Figure 9 Snipped Code for PHP

- **Css**

```

#welcome {
    position: relative;
    margin-left: 20%;
    width: 50px;
    height: 80px;
    font-size: 80px;
    font-family: roboto;
    font-style: normal;
    font-weight: 900;
    font-size: 70px;
    top: 12px;
    color: #f1f1f1;
}

#description {
    position: relative;
    width: 465px;
    color: #ffffff;
    margin-left: 20%;
    font-family: roboto;
    font-weight: normal;
    font-style: normal;
    letter-spacing: 2px;
}

.login-form {
    position: absolute;
    width: 509px;
    height: 51px;
    left: 91px;
    top: 338px;
}

```

Figure 10 Snipped Code for Css

- Mysql

```

$sql = "INSERT INTO health (IsFever, IsCough, IsSore_Throat, IsDifficult_Breath, OtherSymtoms, CloseContact, IsRed_Area, I
$result = mysqli_query($conn, $sql);
if ($result) {
    header("Location: form.php?success=The form already submit. Thank you!");
    exit();
}else {
    header("Location: form.php?error=unknown error occurred");
    exit();
}

```

Figure 11 Snipped Code for Mysql

- Html

```

<html>
<script src="http://code.jquery.com/jquery-1.9.1.min.js"></script>
<link href="https://cdnjs.cloudflare.com/ajax/libs/toastr.js/2.0.1/css/toastr.css" rel="stylesheet" />
<script src="https://cdnjs.cloudflare.com/ajax/libs/toastr.js/2.0.1/js/toastr.js"></script>

</html>
<?php
$servername = "localhost";
$username = "root";
$password = "";
// $username = "admin";
// $password = "123"; //utk azri lul
$dbname = "reqngo";
$conn = mysqli_connect($servername, $username, $password, $dbname); //connect database

if ($conn->connect_error) {
    echo "<script type='text/javascript'>toastr.error('Database Collapsed!')</script>";
    echo "<script type='text/javascript'>toastr.options.positionClass = 'toast-bottom-right' </script>";
    die("Connection failed: " . $conn->connect_error); //die = exit , . utk joined
} else {
    echo "<script type='text/javascript'>toastr.options.positionClass = 'toast-bottom-right' </script>";
    echo "<script type='text/javascript'>toastr.success('Database Connected!')</script>";
}
//require once file.php call file

```

Figure 12 Snipped Code for Html

13. Chatbot

The screenshot shows the Dialogflow Essentials interface. On the left is a sidebar with navigation options: abam, en, Intents (selected), Entities, Knowledge [beta], Fulfillment, Integrations, Training, Validation, History, and Analytics. The main area is titled 'Intents' and contains a 'CREATE INTENT' button. Below the button is a list of 21 intents, each with a blue dot icon and a label: soalan_1, soalan_10, soalan_11, soalan_12, soalan_13, soalan_14, soalan_15, soalan_16, soalan_17, soalan_18, soalan_19, soalan_2, soalan_20, and soalan_21. On the right side, there is a 'Try it now' button and a microphone icon. Below these, a message says: 'Please use test console above to try a sentence.'

Figure 13 Main Page in Dialogflow platform














	Default Fallback Intent	
	Default Welcome Intent	
<input type="checkbox"/>	soalan_1	Add follow-up intent  
	soalan_10	
	soalan_11	
	soalan_12	
	soalan_13	
	soalan_14	
	soalan_15	
	soalan_16	
	soalan_17	
	soalan_18	

Figure 14 List of intent




	info?
	More information?
	Who can I call for further information?

Figure 15 Example Question from user



Text Response		
1	For further information, please call CIDB careline 0355672300	
2	Enter a text response variant	

Figure 16 Example Answer from chatbot

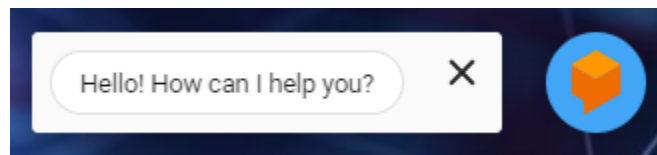


Figure 17 Chatbot Interface in the website

14. Function

15. Design Interface

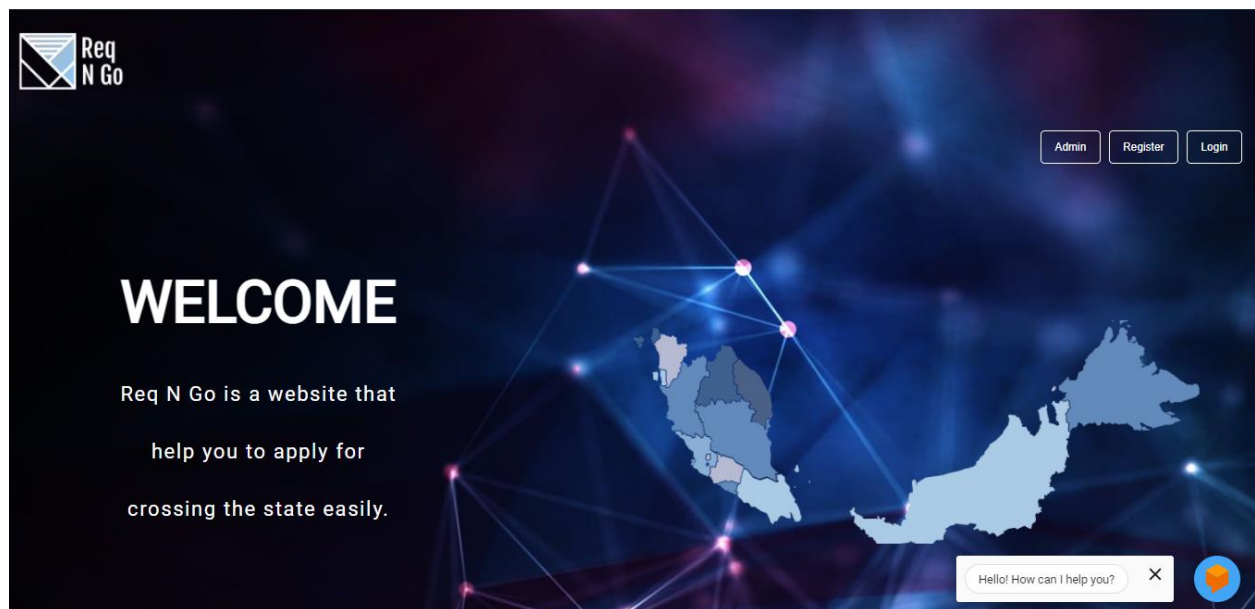
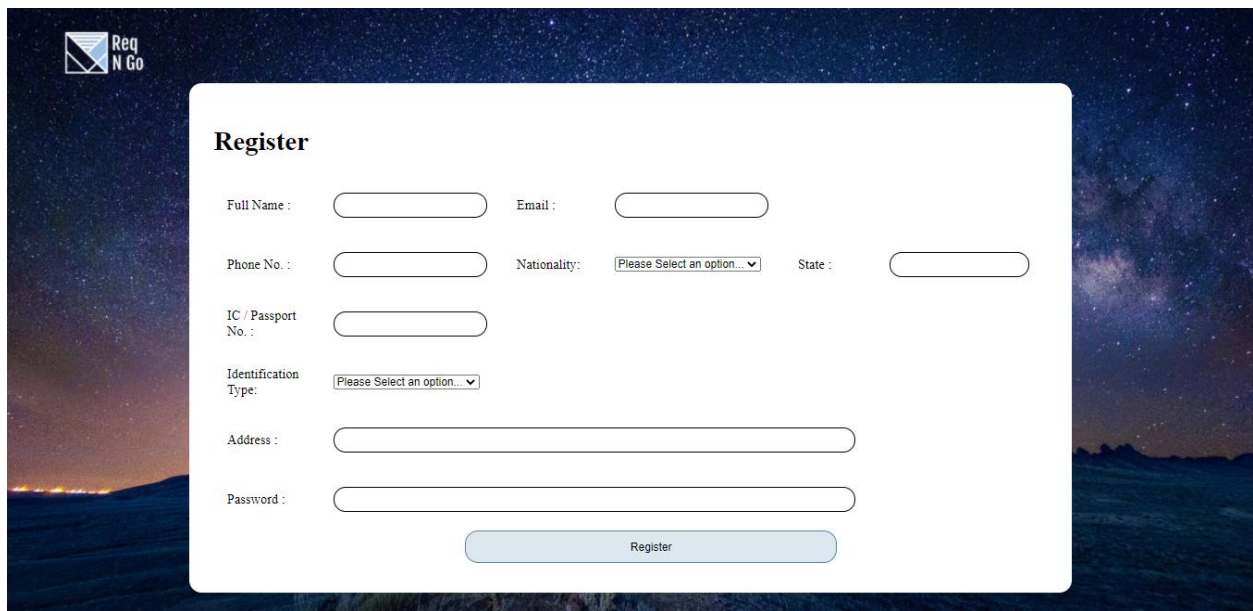


Figure 18 Main Page of the website



The registration form is titled "Register" and is set against a background of a starry night sky. It includes input fields for Full Name, Email, Phone No., Nationality (a dropdown menu), State, IC / Passport No., Identification Type (a dropdown menu), Address, and Password. A "Register" button is located at the bottom of the form.

Register

Full Name : Email :

Phone No. : Nationality: State :

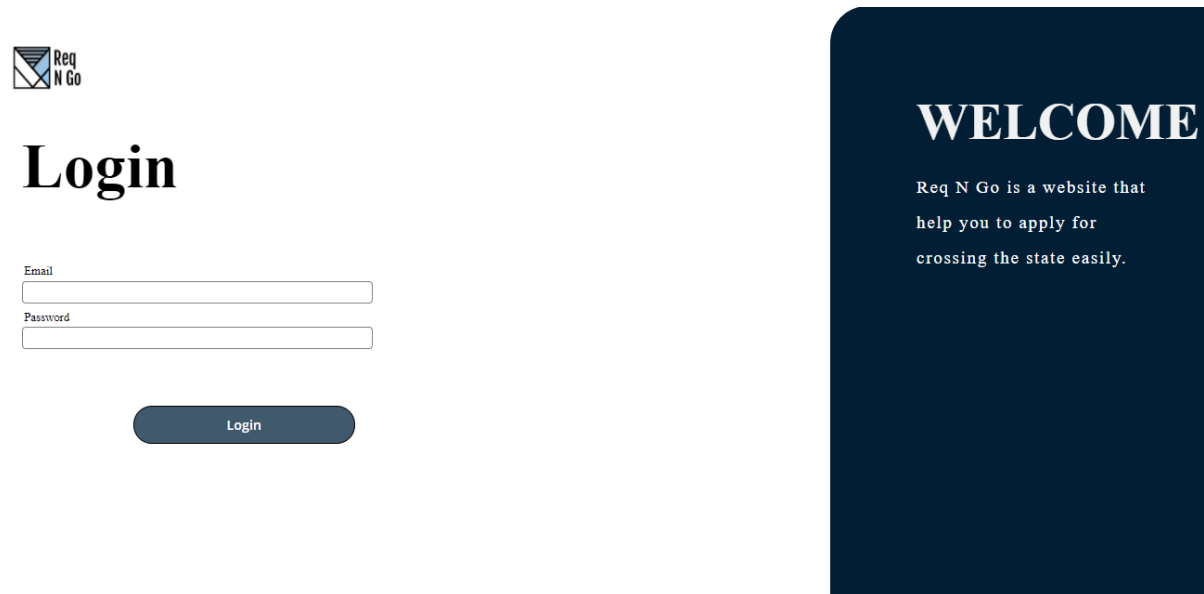
IC / Passport No. :

Identification Type:

Address :

Password :

Figure 19 Registration form



The login page features the "Req N Go" logo and a large "Login" heading. It contains input fields for Email and Password, followed by a "Login" button. To the right, a dark blue sidebar displays a "WELCOME" message and a description of the website's purpose.

Req N Go

Login

Email

Password

WELCOME

Req N Go is a website that help you to apply for crossing the state easily.

Figure 20 Login page

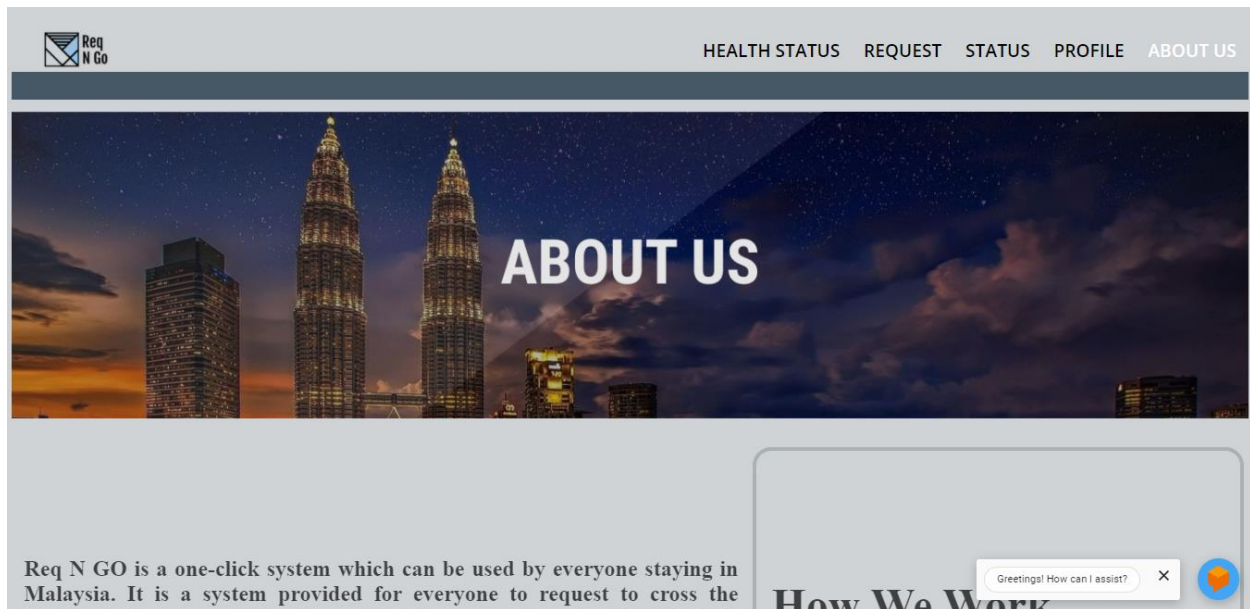



Figure 21 About Us as Main Page



Figure 22 Admin Part



[HEALTH STATUS](#)
[REQUEST](#)
[STATUS](#)
[PROFILE](#)
[ABOUT US](#)

Health Status Form

1. Have you been to see any area or countries of COVID-19 as indicated by WHO over the past 14 days?

Choice Input

Yes ☐

No ☐

2. Have you had any of the following symptoms over the past 14 days? Please tick if yes

Symptoms	Input
Fever	<input type="checkbox"/>
Difficulty in breathing	<input type="checkbox"/>
Cough	<input type="checkbox"/>
Sore throat	<input type="checkbox"/>

Other symptoms (please specify)

Other symptoms

3. Have you been in close contact with person suspected to have COVID-19?

Hi! How are you doing?





Figure 23 Health Status Form page



[HEALTH STATUS](#)
[REQUEST](#)
[STATUS](#)
[PROFILE](#)
[ABOUT US](#)

My Profile

Full Name :

Phone No. :

IC / Passport No. :

Area :

Address :

Email :

Nationality :

State :

Postal Code :

Hello! How can I help you?




Figure 24 Profile page

16. PhpMyAdmin

Structure SQL Search Query Export Import Operations Privileges Routines Events More

Filters

Containing the word:

Table	Action	Rows	Type	Collation	Size	Overhead
<input type="checkbox"/> admin	★ Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_general_ci	16.0 KiB	-
<input type="checkbox"/> health	★ Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_general_ci	16.0 KiB	-
<input type="checkbox"/> request	★ Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_general_ci	64.0 KiB	-
<input type="checkbox"/> user	★ Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_general_ci	16.0 KiB	-
4 tables	Sum	0	InnoDB	utf8mb4_general_ci	112.0 KiB	0 B

↑ ☐ Check all With selected:

Print Data dictionary

Create table

Name: Number of columns:

Figure 25 Database Structure

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers

Table structure Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/> 1	Staff_Id 🔑	int(6)			No	None		AUTO_INCREMENT	Change Drop More
<input type="checkbox"/> 2	Email	varchar(255)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/> 3	Password	varchar(255)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/> 4	Fullname	varchar(30)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/> 5	Position	varchar(255)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/> 6	Position_Station_No	int(11)			No	None			Change Drop More
<input type="checkbox"/> 7	User_Type	varchar(255)	utf8mb4_general_ci		No	Admin			Change Drop More

↑ ☐ Check all With selected: Browse Change Drop Primary Unique Index Fulltext Add to central columns

Remove from central columns

Figure 26 Table Admin structure in PhpMyAdmin

<div> Table structure Relation view </div>										
#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action	
<input type="checkbox"/>	1 Form_Id	int(5)			No	None		AUTO_INCREMENT		Change Drop
<input type="checkbox"/>	2 IsFever	varchar(5)	utf8mb4_general_ci		No	None				Change Drop
<input type="checkbox"/>	3 IsCough	varchar(5)	utf8mb4_general_ci		No	None				Change Drop
<input type="checkbox"/>	4 IsSore_Throat	varchar(5)	utf8mb4_general_ci		No	None				Change Drop
<input type="checkbox"/>	5 IsDifficult_Breath	varchar(5)	utf8mb4_general_ci		No	None				Change Drop
<input type="checkbox"/>	6 OtherSymptoms	varchar(20)	utf8mb4_general_ci		No	None				Change Drop
<input type="checkbox"/>	7 CloseContact	varchar(5)	utf8mb4_general_ci		No	None				Change Drop
<input type="checkbox"/>	8 IsRed_Area	varchar(5)	utf8mb4_general_ci		No	None				Change Drop
<input type="checkbox"/>	9 Health_Status	varchar(10)	utf8mb4_general_ci		Yes	NULL				Change Drop
<input type="checkbox"/>	10 Identity_No	varchar(255)	utf8mb4_general_ci		No	None				Change Drop

☐ Check all With selected: Browse Change Drop Primary Unique Index Fulltext Add to central columns
 Remove from central columns

Figure 27 Table Health structure in PhpMyAdmin

<div> Table structure Relation view </div>										
#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action	
<input type="checkbox"/>	1 Request_Id	int(3)			No	None		AUTO_INCREMENT		Change
<input type="checkbox"/>	2 Identity_No	int(12)			No	None				Change
<input type="checkbox"/>	3 Vehicle_Req_No	varchar(255)	utf8mb4_general_ci		No	None				Change
<input type="checkbox"/>	4 Departure_Date	date			No	None				Change
<input type="checkbox"/>	5 Arrival_Date	date			No	None				Change
<input type="checkbox"/>	6 Reason	varchar(100)	utf8mb4_general_ci		No	None				Change
<input type="checkbox"/>	7 Request_Date	timestamp			No	0000-00-00 00:00:00		ON UPDATE CURRENT_TIMESTAMP()		Change
<input type="checkbox"/>	8 Request_Status	varchar(10)	utf8mb4_general_ci		No	None				Change
<input type="checkbox"/>	9 Form_Id	int(5)			No	None				Change
<input type="checkbox"/>	10 Mode_Of_Transportation	varchar(10)	utf8mb4_general_ci		No	None				Change

☐ Check all With selected: Browse Change Drop Primary Unique Index Fulltext Add to central columns
 Remove from central columns

Figure 28 Table Request structure in PhpMyAdmin

Browse

Structure

SQL

Search

Insert

Export

Import

Privileges

Operations

Tracking

Triggers

Table structure

Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	Identity_No	int(12)		No	None			<div><div></div>Change<div></div>Drop<div></div>More</div>
<input type="checkbox"/>	2	Identity_Type	varchar(255)	utf8mb4_general_ci	No	None			<div><div></div>Change<div></div>Drop<div></div>More</div>
<input type="checkbox"/>	3	FullName	varchar(30)	utf8mb4_general_ci	No	None			<div><div></div>Change<div></div>Drop<div></div>More</div>
<input type="checkbox"/>	4	Address	varchar(30)	utf8mb4_general_ci	No	None			<div><div></div>Change<div></div>Drop<div></div>More</div>
<input type="checkbox"/>	5	State	varchar(255)	utf8mb4_general_ci	No	None			<div><div></div>Change<div></div>Drop<div></div>More</div>
<input type="checkbox"/>	6	Nationality	varchar(255)	utf8mb4_general_ci	No	None			<div><div></div>Change<div></div>Drop<div></div>More</div>
<input type="checkbox"/>	7	Email	varchar(15)	utf8mb4_general_ci	No	None			<div><div></div>Change<div></div>Drop<div></div>More</div>
<input type="checkbox"/>	8	Password	varchar(255)	latin1_swedish_ci	No	None			<div><div></div>Change<div></div>Drop<div></div>More</div>
<input type="checkbox"/>	9	Phone_Number	varchar(14)	utf8mb4_general_ci	No	None			<div><div></div>Change<div></div>Drop<div></div>More</div>
<input type="checkbox"/>	10	User_Type	varchar(256)	utf8mb4_general_ci	No	Customer			<div><div></div>Change<div></div>Drop<div></div>More</div>

☐ Check all

With selected:

Browse

Change

Drop

Primary

Unique

Index

Fulltext

Add to central columns

Remove from central columns

Figure 29 Table User structure in PhpMyAdmin

17. Error Handling



Figure 30 Error Handling when enter invalid input



Figure 31 Error Handling when user don't filled all fields in register form

localhost:8012 says
Please ensure all details are accurate before submitting

OK Cancel

Other symptoms (please specify)

3. Have you been in close contact with person suspected to have COVID-19?

Choice Input
Yes ☐
No ☐

If the answer is yes to either of the question above, please report to the Health Screening Area.

Definition close contact:

- Health care associated exposure, include providing direct care for COVID-19 patients, working with health care workers infected with COVID-19, visiting patients or staying in the same close environment of a COVID-19 patient.
- Working together in close proximity or sharing same classroom environment with a COVID-19 patient.
- Traveling together with COVID-19 patient in any kind of conveyance
- Living in the same household as a COVID-19 patient

Submit

Hi! How are you doing? X

Figure 32 Pop up when user enter submit button

Incomplete Input. Please answer question 1 and 3.

Figure 33 Error Handling when user don't answer all question

18. Conclusion

In conclusion, this system has met all the mandatory requirements to apply permission for crossing states. Users can apply by using this system if they have any urgent matters that need them to cross states. We are confident by using this system, the rate of COVID-19 infection will decline with our contribution to restoring our country's economy, health, and prosperity. To end this conclusion, we hope that the Malaysian public will take responsibility for their own actions and always keep themselves safe and follow the government given SOP to pursue our ultimate goal, vanquish COVID-19 from Malaysia.