FAKULTI TEKNOLOGI MAKLUMAT DAN KOMUNIKASI

SEMESTER 1 2020/2021

WEB APPLICATION DEVELOPMENT (BITM2113)

PROJECT TITLE: Req N Go

PREPARED BY:

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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

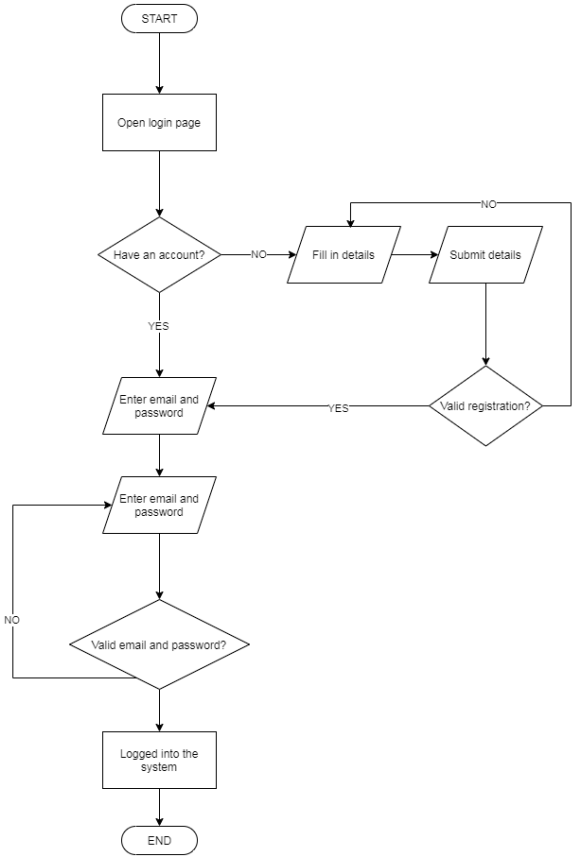


Figure 1 Login Page

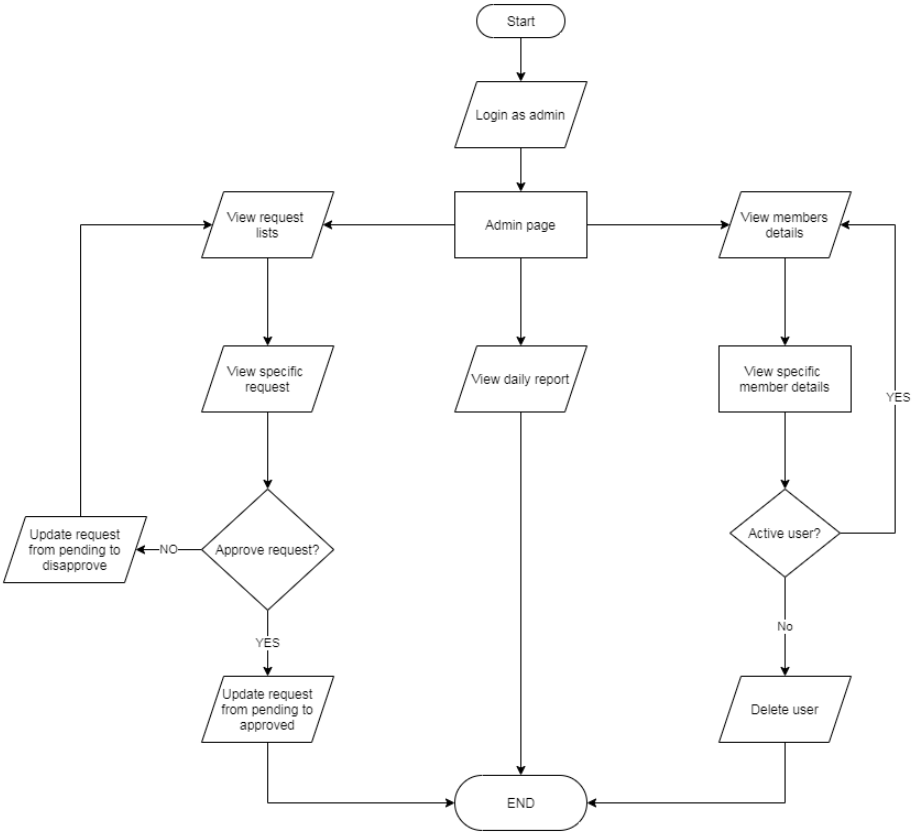


Figure 2 Administration Page

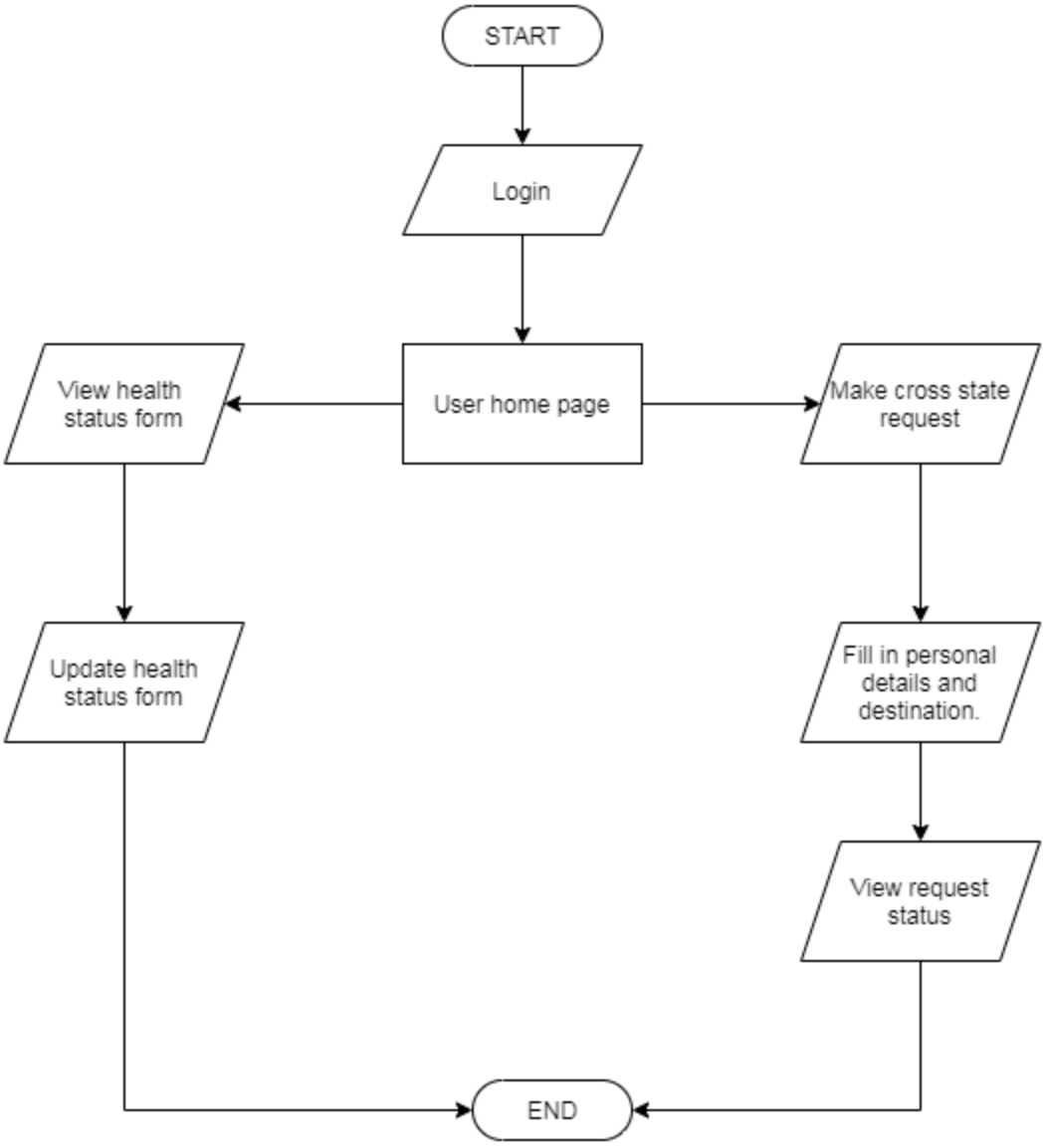


Figure 3 User Page

7. Site Structure Design

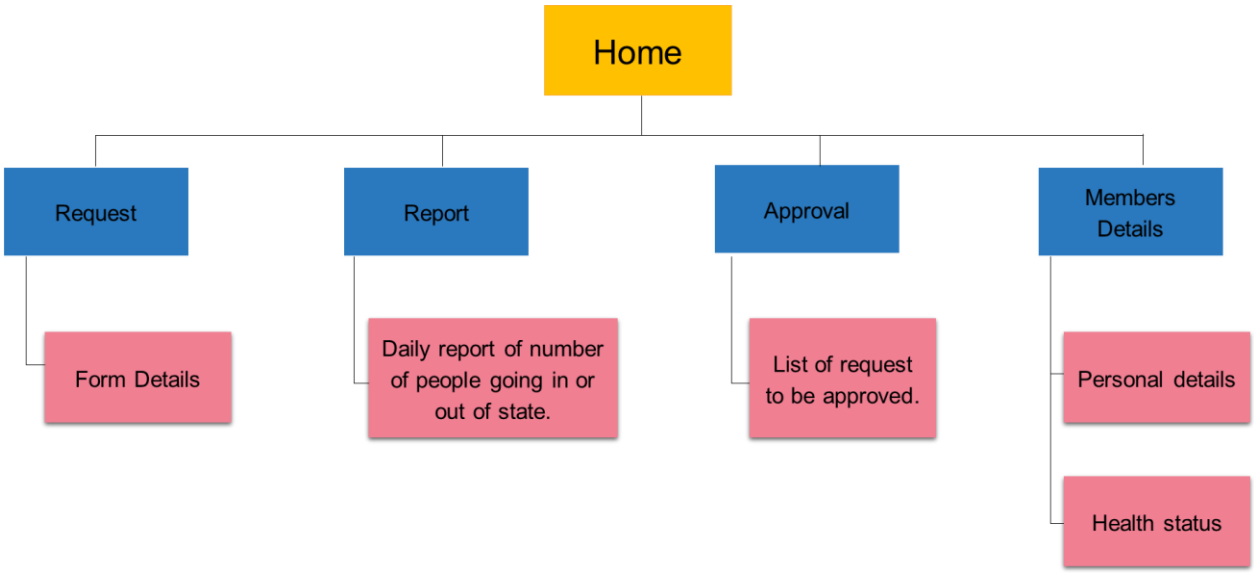


Figure 4 Req N Go Site Structure Design

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.

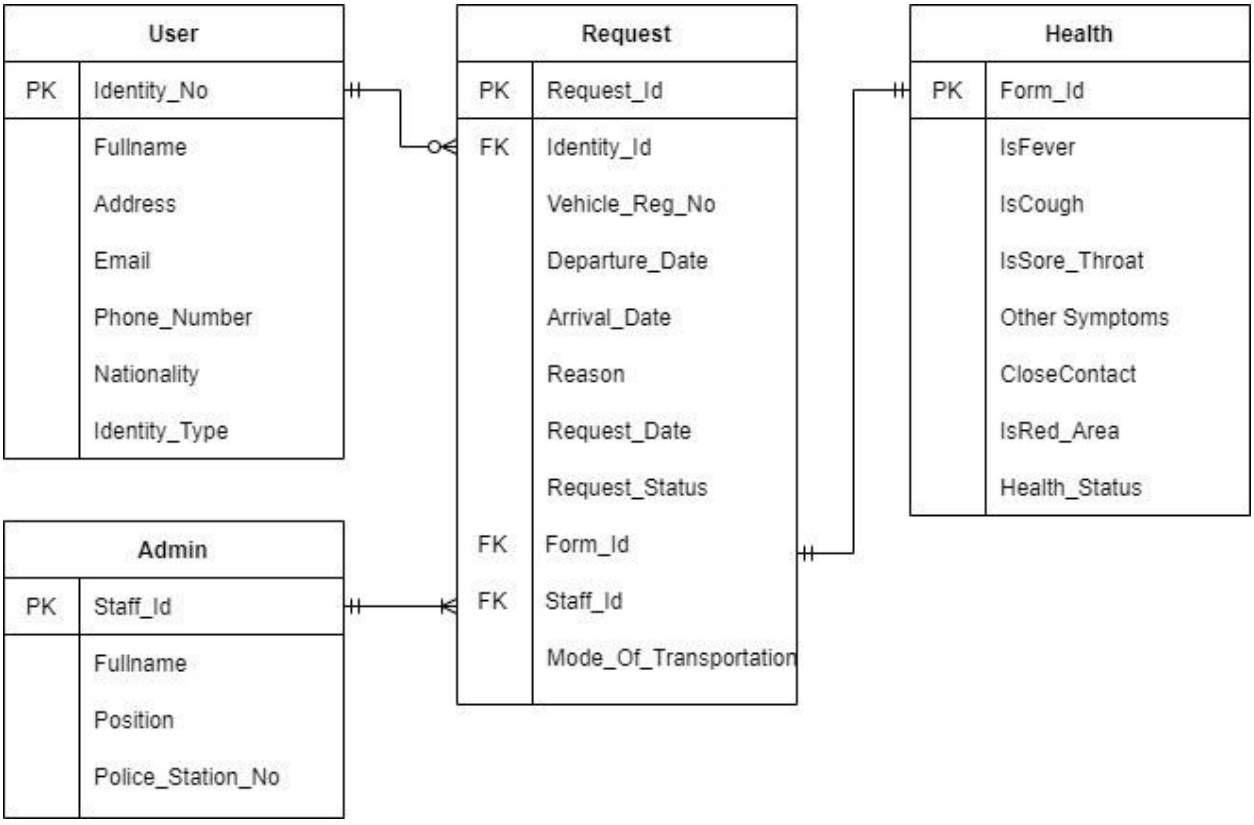


Figure 5 System ERD

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

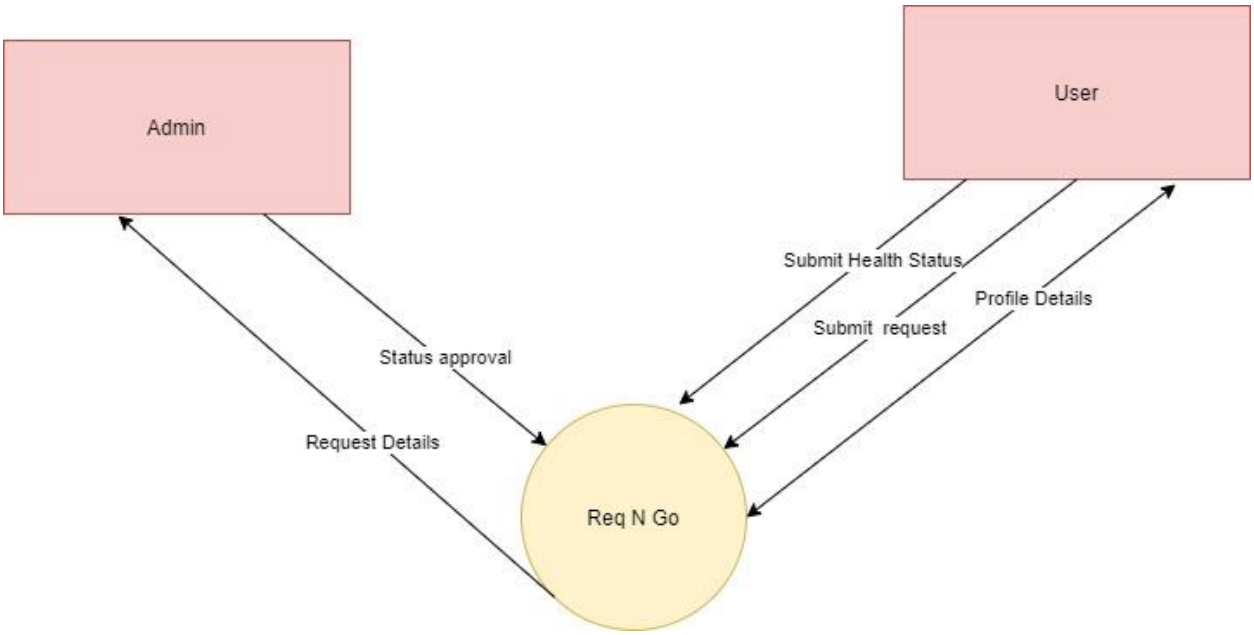


Figure 6 Req N Go Context Diagram

10. Interface Design

11. System Requirement

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

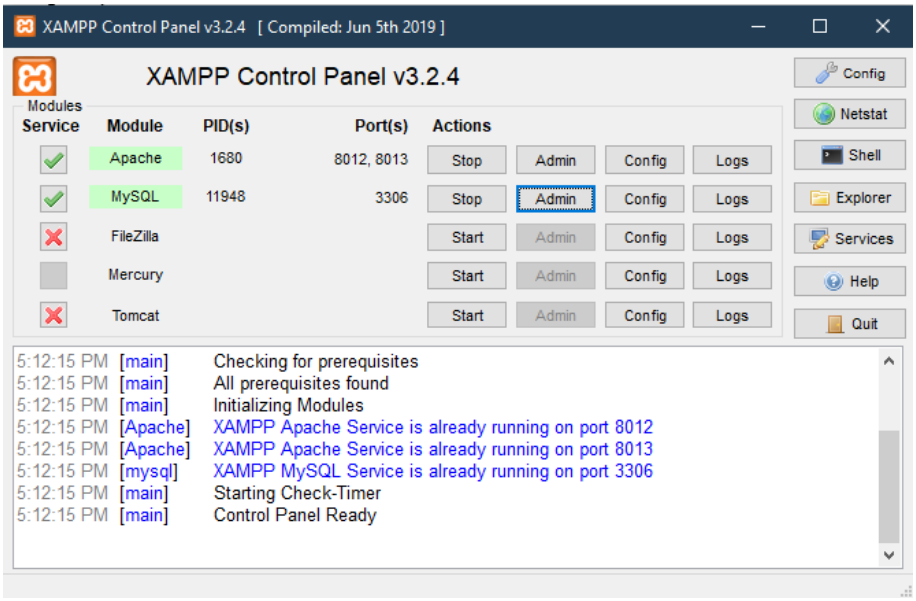


Figure 7 XAMPP Software

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
<?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,

$profile = mysqli_query($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**

```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**

```php
$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
$database = "reqngo";
$conn = mysqli_connect($servername, $username, $password, $database);   //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

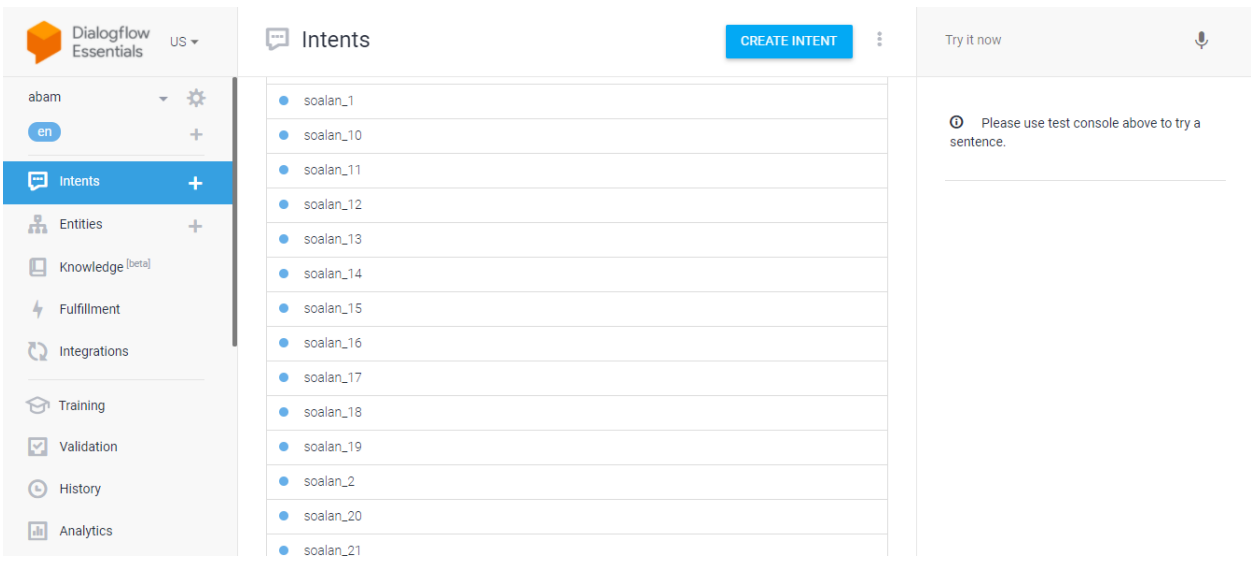


Figure 13 Main Page in Dialogflow platform

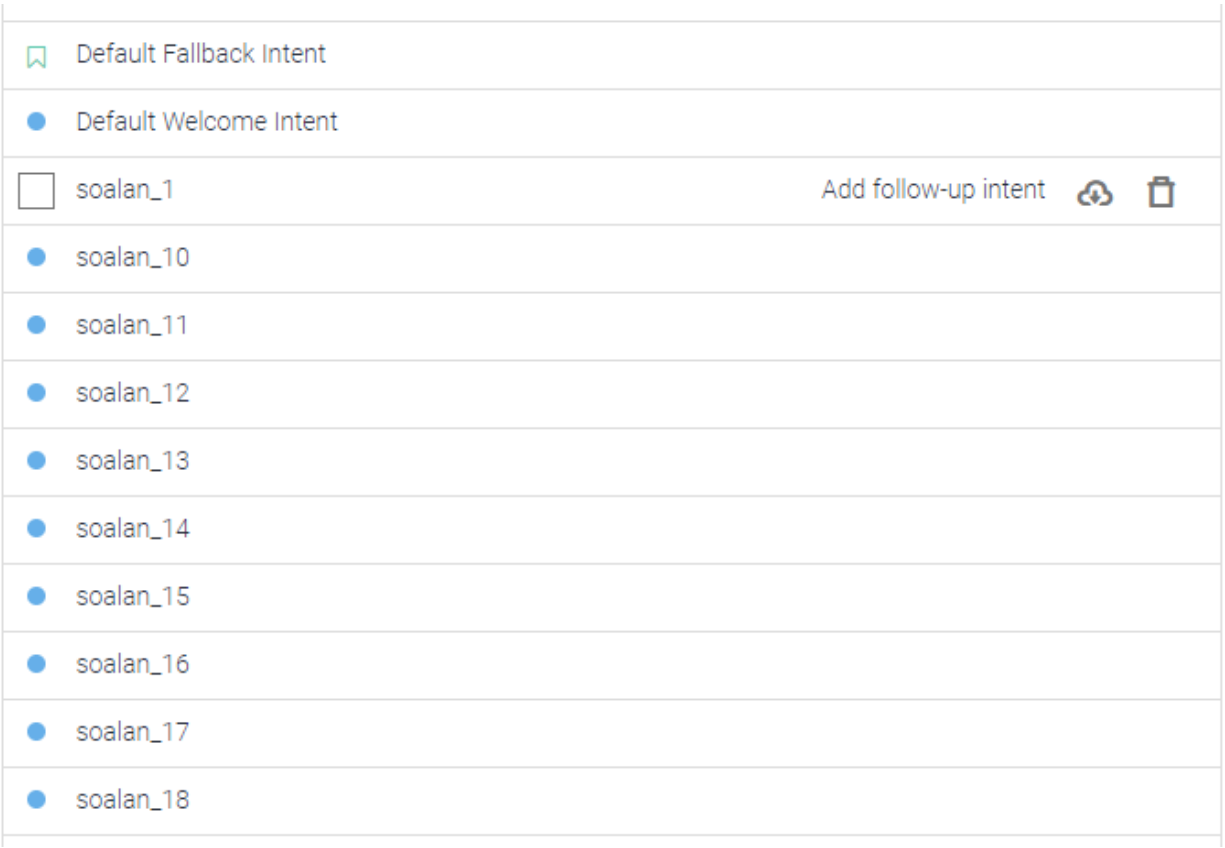


Figure 14 List of intent

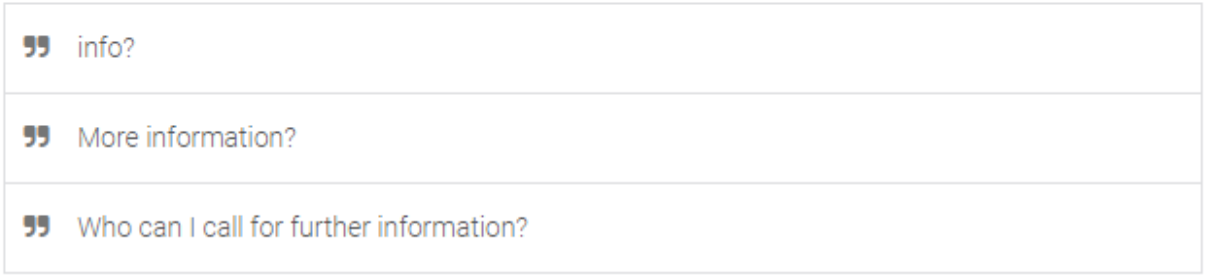


Figure 15 Example Question from user

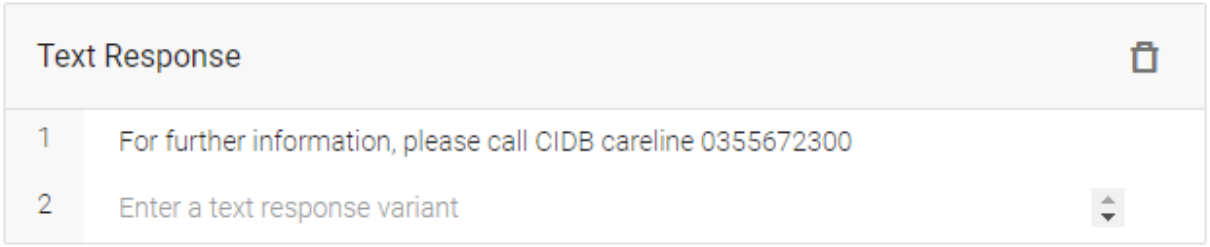


Figure 16 Example Answer from chatbot

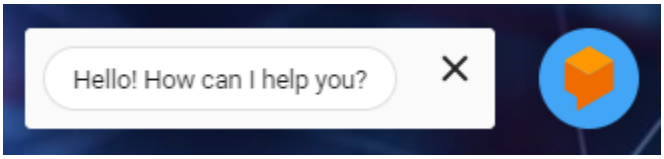


Figure 17 Chatbot Interface in the website

14. Function

15. Design Interface

Figure 18 Main Page of the website

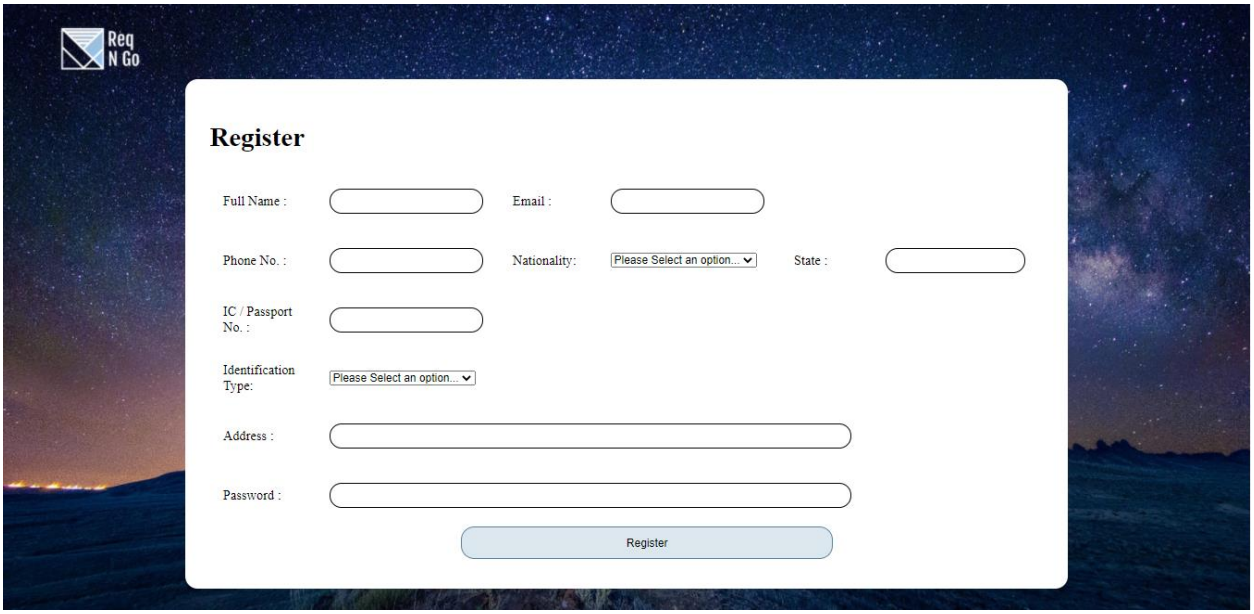


Figure 19 Registration form

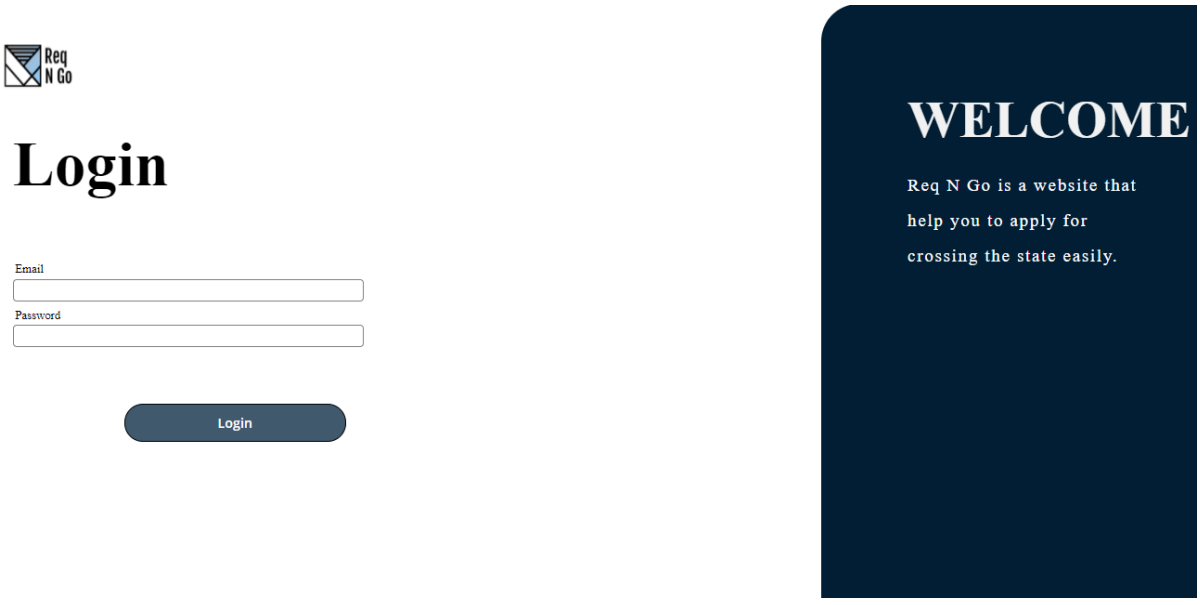


Figure 20 Login page

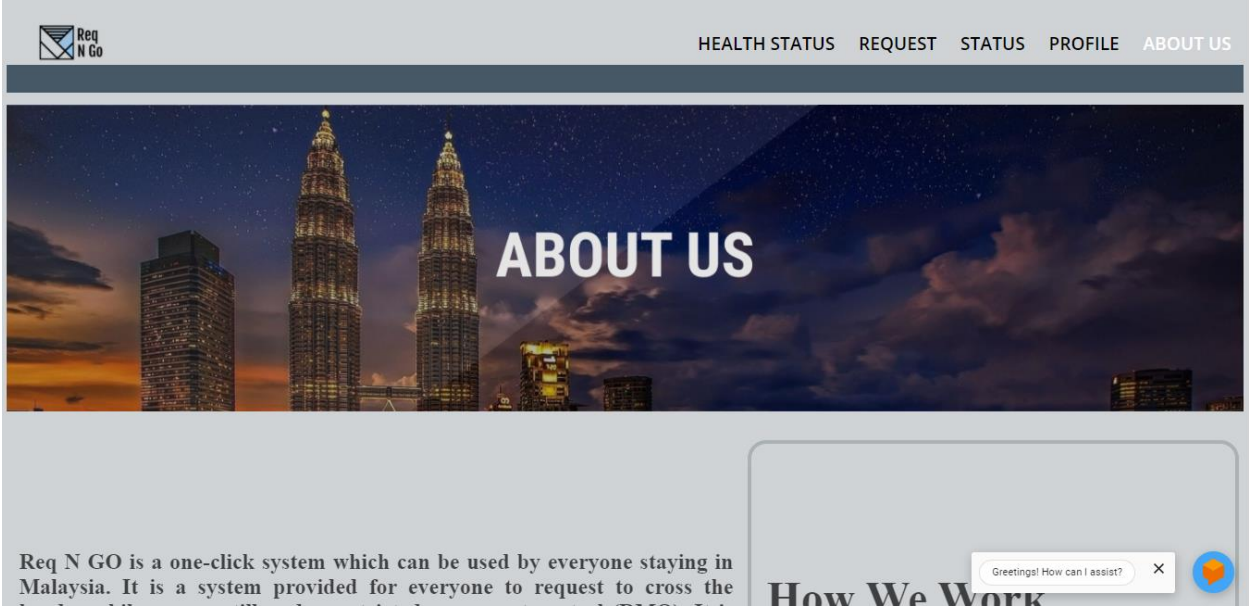


Figure 21 About Us as Main Page

Figure 22 Admin Part

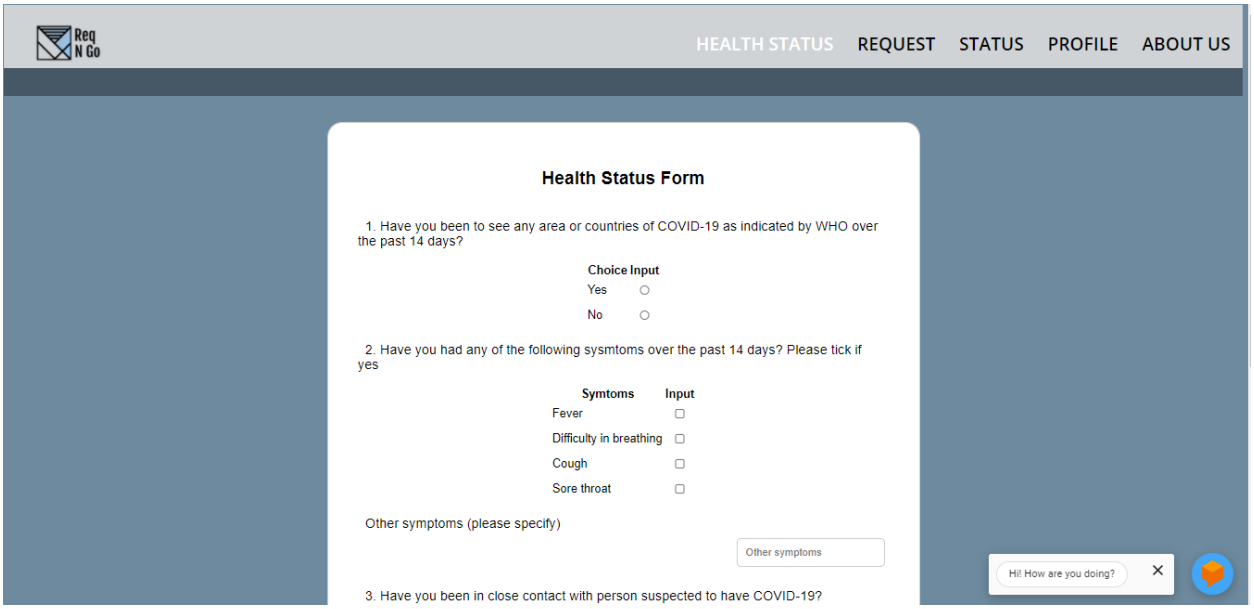


Figure 23 Health Status Form page

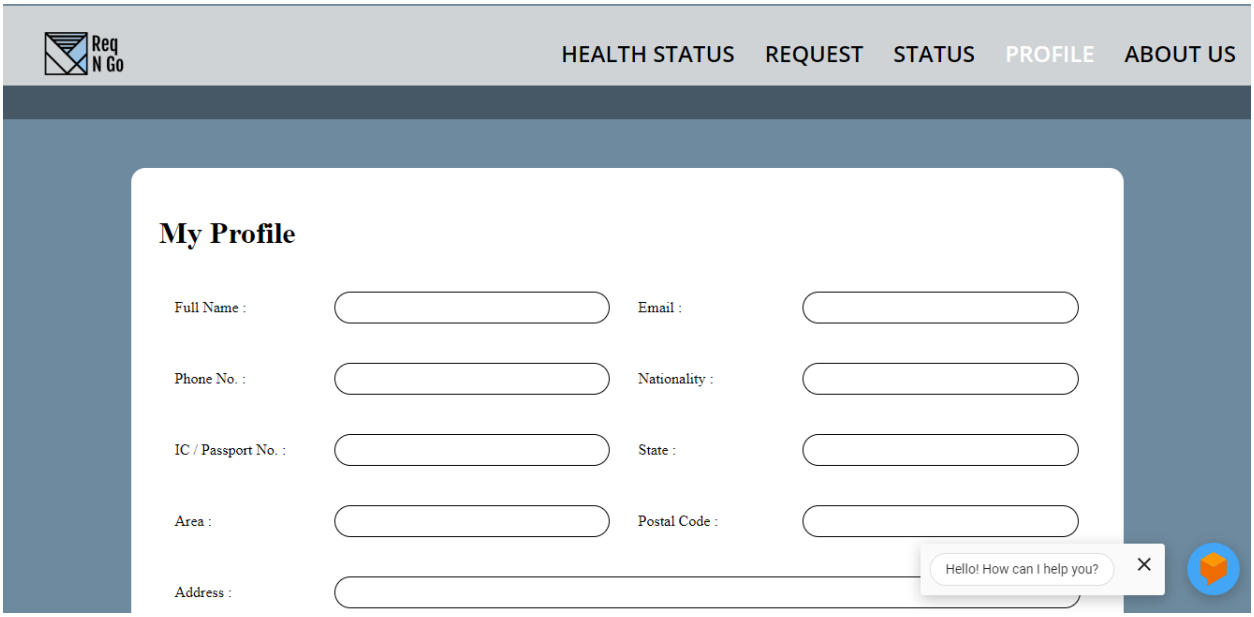


Figure 24 Profile page

16. PhpMyAdmin

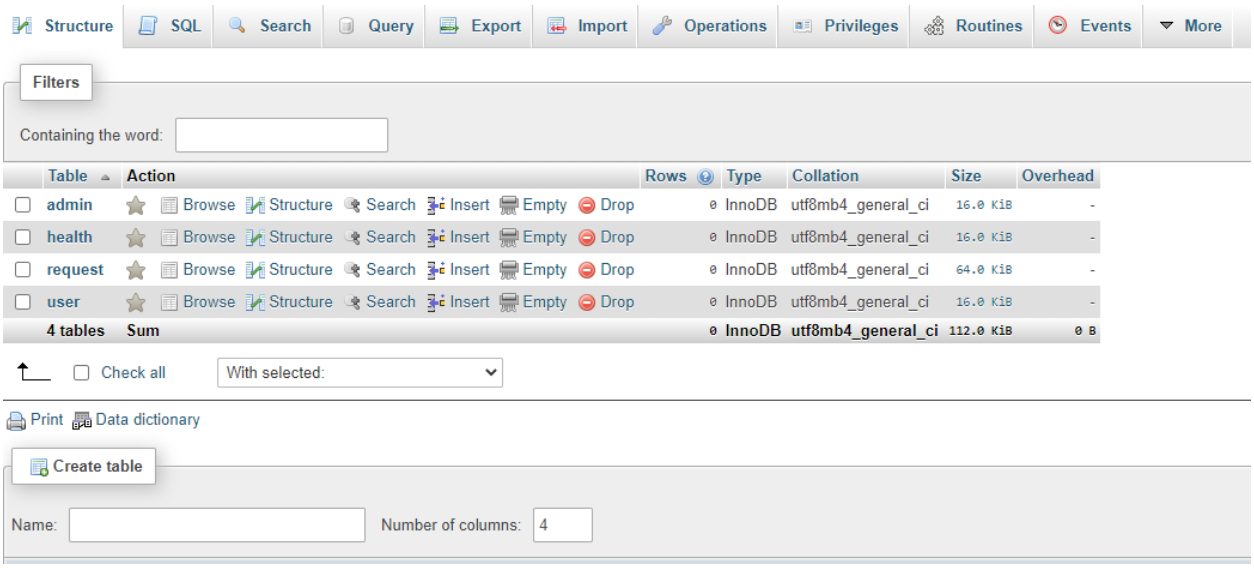


Figure 25 Database Structure

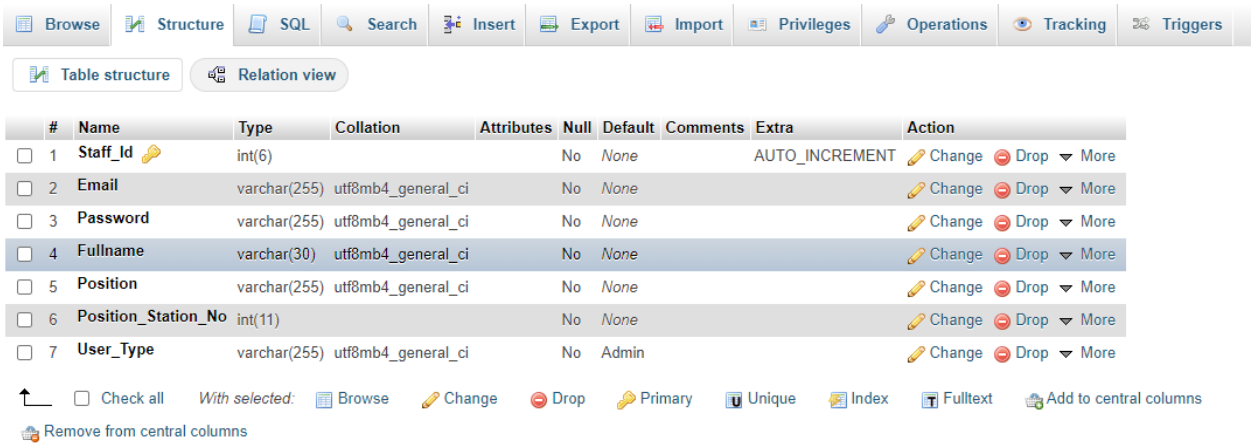
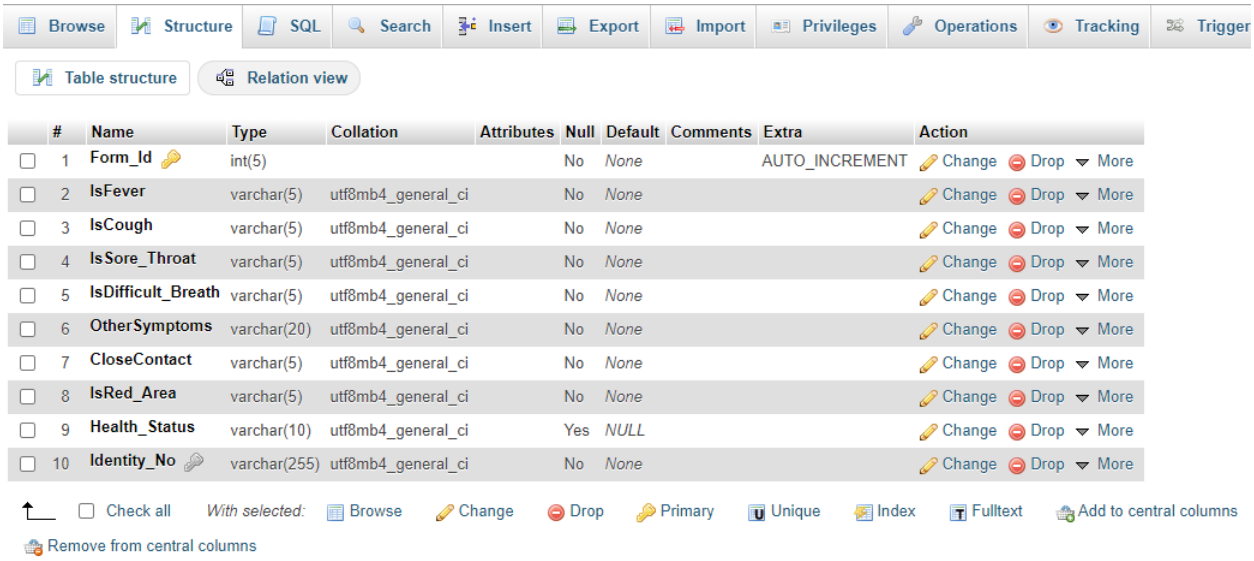


Figure 26 Table Admin structure in PhpMyAdmin



Browse | Structure | SQL | Search | Insert | Export | Import | Privileges | Operations | Tracking | Trigger

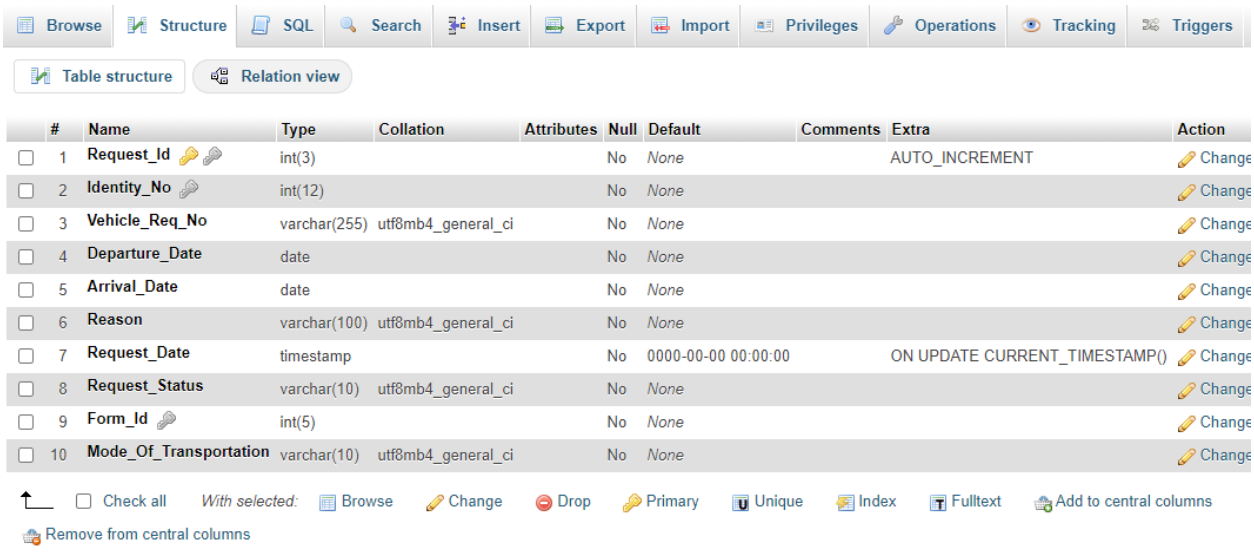
Table structure | Relation view

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
☐	1	Form_Id	int(5)			No	None		AUTO_INCREMENT	Change Drop More
☐	2	IsFever	varchar(5)	utf8mb4_general_ci		No	None			Change Drop More
☐	3	IsCough	varchar(5)	utf8mb4_general_ci		No	None			Change Drop More
☐	4	IsSore_Throat	varchar(5)	utf8mb4_general_ci		No	None			Change Drop More
☐	5	IsDifficult_Breath	varchar(5)	utf8mb4_general_ci		No	None			Change Drop More
☐	6	OtherSymptoms	varchar(20)	utf8mb4_general_ci		No	None			Change Drop More
☐	7	CloseContact	varchar(5)	utf8mb4_general_ci		No	None			Change Drop More
☐	8	IsRed_Area	varchar(5)	utf8mb4_general_ci		No	None			Change Drop More
☐	9	Health_Status	varchar(10)	utf8mb4_general_ci		Yes	NULL			Change Drop More
☐	10	Identity_No	varchar(255)	utf8mb4_general_ci		No	None			Change Drop More

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



Browse | Structure | SQL | Search | Insert | Export | Import | Privileges | Operations | Tracking | Triggers

Table structure | Relation view

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
☐	1	Request_Id	int(3)			No	None		AUTO_INCREMENT	Change
☐	2	Identity_No	int(12)			No	None			Change
☐	3	Vehicle_Req_No	varchar(255)	utf8mb4_general_ci		No	None			Change
☐	4	Departure_Date	date			No	None			Change
☐	5	Arrival_Date	date			No	None			Change
☐	6	Reason	varchar(100)	utf8mb4_general_ci		No	None			Change
☐	7	Request_Date	timestamp			No	0000-00-00 00:00:00		ON UPDATE CURRENT_TIMESTAMP()	Change
☐	8	Request_Status	varchar(10)	utf8mb4_general_ci		No	None			Change
☐	9	Form_Id	int(5)			No	None			Change
☐	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

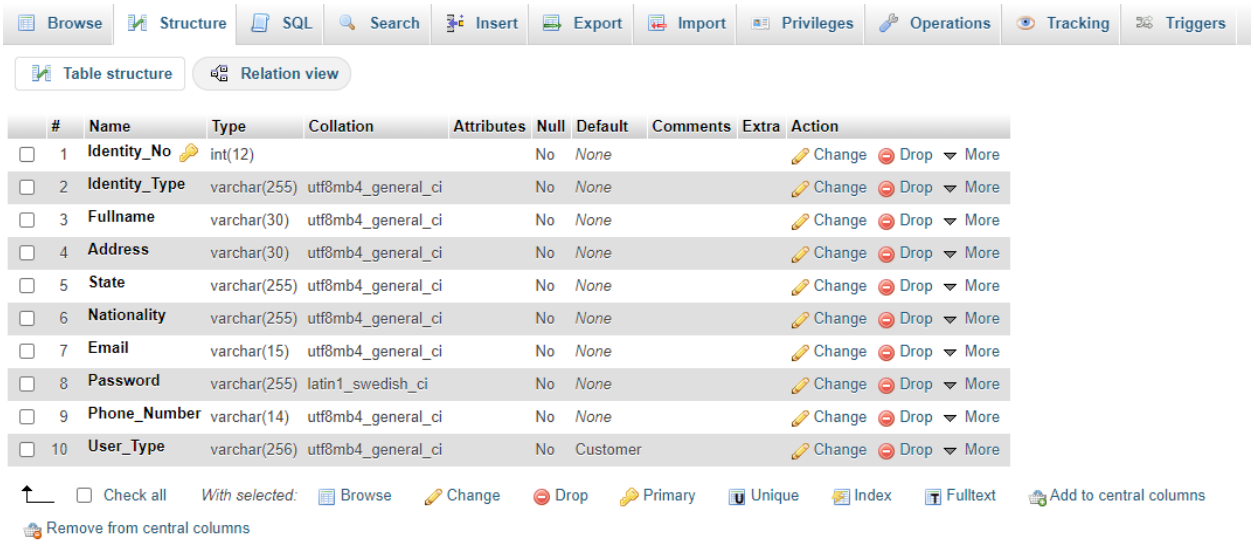


Figure 29 Table User structure in PhpMyAdmin

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

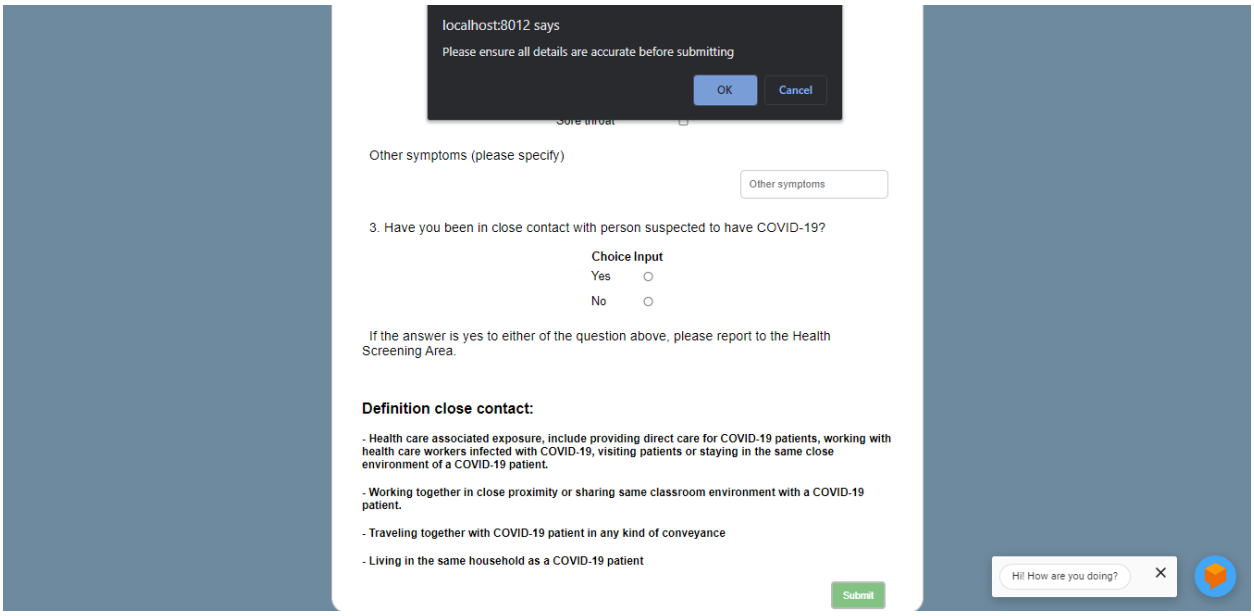


Figure 32 Pop up when user enter submit button

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.