Employees Management System

**Specifications**

Programming Framework & Database

1. Use Laravel 8 Framework as development platform
2. MySQL 5 or later as Database
3. VueJS 3.1 + Laravel mix for compiling assets (js, css and images)
4. Implement VueJS on employee management only. + CRUD and search features
5. Bootstrap 4

**User Interface**

1. Interface should be responsive based on HTML5 and bootstrap 4.
2. User interface layout should have side bar menu and header
   1. On sidebar the following should be displayed as vertical menu
      1. Dashboard
      2. Employee Management
      3. System Management
         1. Country (sub menu)
         2. State (sub menu)
         3. City (sub menu)
         4. Department (sub menu)
   2. User management
      1. User (sub menu)
   3. On header interface, display the name of the logged in user as well as the menu for logout.
   4. After authentication, the user should be redirected to a blank dashboard
   5. Authentication
      1. User will be able to login using email and password
      2. Three (3) failed attempt will lock the users for 5 minutes
   6. User Management
      1. Create, update and delete users
      2. Change password
      3. Search User by username and email
   7. Employee management
      1. List of employees with search and filter by employee name and department
      2. Create, update and delete employees
   8. System Management
      1. Country
         1. List of countries with search
         2. Create, update and delete
      2. State
         1. List of State with search
         2. Create, update and delete
      3. City
         1. List of city with search
         2. Create, update and delete
      4. Department
         1. List of departments with search
         2. Create, update and delete

**API**

* Create an API end point for user registration and authentication
* Create an API end point to list all employees order alphabetically by lastname

**Data Dictionary / Database design**

|  |  |  |  |
| --- | --- | --- | --- |
| **Users (Naimur)** |  |  |  |
|  | Id | Auto increment |  |
|  | Username | Varchar(20) | \*required |
|  | Last name | Varchar(30) | \*required |
|  | First name | Varchar(30) | \*required |
|  | Email | Varchar(60) | \*required |
|  | Password | Char(200) | \*required |
|  | Created\_at | Datetime |  |
|  | Updated\_at | Datetime |  |
|  | Deleted at | Datetime |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Employees** |  |  |  |
|  | Id | Auto increment |  |
|  | Lastname | Varchar(30) | \*required |
|  | Firstname | Varchar(30) | \*required |
|  | Address | Varchar(150) |  |
|  | Department\_id | Foreign key to department |  |
|  | City\_id | Foreign key to city |  |
|  | Division\_id | Foreign key to division |  |
|  | Country\_id | Foreign key to country |  |
|  | Zip\_code | Char(6) |  |
|  | Birthdate | Date |  |
|  | Date\_hired | Date |  |
|  | Created\_at | Datetime |  |
|  | Updated\_at | Datetime |  |
|  | Deleted at | Datetime |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Countries (Anamul)** |  |  |  |
|  | Id | Auto increment |  |
|  | Country\_code | Char(3) | \*required |
|  | Name | Varchar(60) | \*required |
|  | Created\_at | Datetime |  |
|  | Updated\_at | Datetime |  |
|  | Deleted at | Datetime |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **States (Anamul)** |  |  |  |
|  | Id | Auto increment |  |
|  | Country\_id | Foreign key to country | \*required |
|  | Name | Varchar(60) | \*required |
|  | Created\_at | Datetime |  |
|  | Updated\_at | Datetime |  |
|  | Deleted at | Datetime |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Cities (Dipu)** |  |  |  |
|  | Id | Auto increment |  |
|  | State\_id | Foreign key to state | \*required |
|  | Name | Varchar(60) | \*required |
|  | Created\_at | Datetime |  |
|  | Updated\_at | Datetime |  |
|  | Deleted at | Datetime |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Departments (Dipu)** |  |  |  |
|  | Id | Auto increment |  |
|  | Name | Varchar(60) | \*required |
|  | Created\_at | Datetime |  |
|  | Updated\_at | Datetime |  |
|  | Deleted at | Datetime |  |

All the steps

Step1: Install Laravel 8

Step2: Config .env with database

Step3: Laravel ui auth installation

<https://github.com/laravel/ui>

* composer require laravel/ui
* php artisan ui bootstrap

Step4: npm install && npm run dev

Step4: php artisan migrate

Step5: php artisan serve

Step6: Model, Migration, Controller creation with resource

Step7: Model update with fillable fields, create relation between models

**Step8: File folder structure**

1. Models
   1. City
   2. Country
   3. Department
   4. Employee
   5. State
   6. User
2. Controllers
   1. Api
      1. EmployeeController
      2. EmployeeDataController
   2. Backend
      1. CityController
      2. CountryController
      3. DepartmentController
      4. StateController
      5. UserController
   3. HomeController
3. Resources
   1. Css
   2. Js
      1. App.js
      2. Bootstrap.js
      3. Routes.js
      4. Components
         1. Employees
            1. Create.vue
            2. Edit.vue
            3. Index.vue
   3. Views
      1. [Home.blade.php](http://Home.blade.php)
      2. Welcome.blade.php
      3. Cities
         1. Create.blade.php
         2. Edit.blade.php
         3. Index.blade.php
      4. Countries
         1. Create.blade.php
         2. Edit.blade.php
         3. Index.blade.php
      5. Departments
         1. Create.blade.php
         2. Edit.blade.php
         3. Index.blade.php
      6. Employees
         1. Index.blade.php
      7. Layouts
         1. App.blade.php
         2. Main.blade.php
      8. States
         1. Create.blade.php
         2. Edit.blade.php
         3. Index.blade.php
      9. Users
         1. Create.blade.php
         2. Edit.blade.php
         3. Index.blade.php

Step9: Admin Lte Templating for Admin Panel