step1- Run the Spatie role permission comand

composer require spatie/laravel-permission

step2- after that run to publish spatie

php artisan vendor:publish --provider="Spatie\Permission\PermissionServiceProvider"

step3- migrate the permission and roles table

php artisan migrate

step4- use inside the user model

```
use Illuminate\Foundation\Auth\User as Authenticatable;
use Spatie\Permission\Traits\HasRoles;

class User extends Authenticatable
{
    use HasRoles;
}
```

step5- create neccessary seeders in this sequence

run -> php artisan make:seeder UsersTableSeeder

```
<?php
namespace Database\Seeders;

use Illuminate\Database\Console\Seeds\WithoutModelEvents;
use Illuminate\Database\Seeder;
use App\Models\User;
use Illuminate\Support\Facades\Hash;
class UsersTableSeeder extends Seeder
```

```
{
    /**
     * Run the database seeds.
     */
    public function run(): void
    {
        $users = [
            [
                'name' => 'Admin',
                'email' => 'admin@mail.com',
                'password' => 'Admin@123',
            ],
            [
                'name' => 'Super Admin',
                'email' => 'superadmin@gmail.com',
                'password' =>'superadmin@123',
            ]
        ];

        foreach($users as $user) {
            $created_user = User::create([
                'name' => $user['name'],
                'email' => $user['email'],
                'password' => Hash::make($user['password']),
            ]);
        }
```

```
    }
}
```

---

run -> php artisan make:seeder RolesSeeder

```
<?php
namespace Database\Seeders;

use Illuminate\Database\Console\Seeds\WithoutModelEvents;
use Illuminate\Database\Seeder;
use Spatie\Permission\Models\Role;
use Spatie\Permission\Models\Permission;

class RolesSeeder extends Seeder
{
    /**
     * Run the database seeds.
     */
    public function run(): void
    {
        $role_admin     = Role::firstOrCreate(['name' => 'admin']);
        $role_superadmin= Role::firstOrCreate(['name' => 'superadmin']);
        $role_teacher   = Role::firstOrCreate(['name' => 'teacher']);
        $role_student   = Role::firstOrCreate(['name' => 'student']);
    }
}
```

---

run -> php artisan make:seeder PermissionSeeder

```
<?php

namespace Database\Seeders;

use App\Models\User;
use Illuminate\Database\Console\Seeds\WithoutModelEvents;
use Illuminate\Database\Seeder;
use Spatie\Permission\Models\Permission;
use Spatie\Permission\Models\Role;

class PermissionSeeder extends Seeder
{
   /**
    * Run the database seeds.
    */
   public function run(): void
   {
      $permissions = [
         'dashboard',
         'categories',
         'categories.category_level_0.create',
         'categories.category_level_0.view',
         'categories.category_level_0.edit',
         'categories.category_level_0.delete',
```

```
    'categories.category_level_1.create',
    'categories.category_level_1.view',
    'categories.category_level_1.edit',
    'categories.category_level_1.delete',
    'categories.category_level_2.create',
    'categories.category_level_2.view',
    'categories.category_level_2.edit',
    'categories.category_level_2.delete',
    'content',
];
 // Looping and Inserting Array's Permissions into Permission Table
 foreach ($permissions as $permission) {
    Permission::create(['name' => $permission]);
  }
   // Check if "admin",'superadmin' role exists
$role_admin = Role::firstOrCreate(['name' => 'admin']);
$role_superadmin = Role::firstOrCreate(['name' => 'superadmin']);
// Assign all permissions to the "admin",'superadmin' role if not already assigned
$role_admin->syncPermissions(Permission::all());
$role_superadmin->syncPermissions(Permission::all());
// Assign the "admin" role to all users who have this role
$adminUsers = User::role('admin')->get();
$superadminUsers = User::role('superadmin')->get();
foreach ($adminUsers as $user1) {
    $user1->syncPermissions(Permission::all());
}
```

```
        foreach ($superadminUsers as $user2) {
            $user2->syncPermissions(Permission::all());
        }
    }
}
```

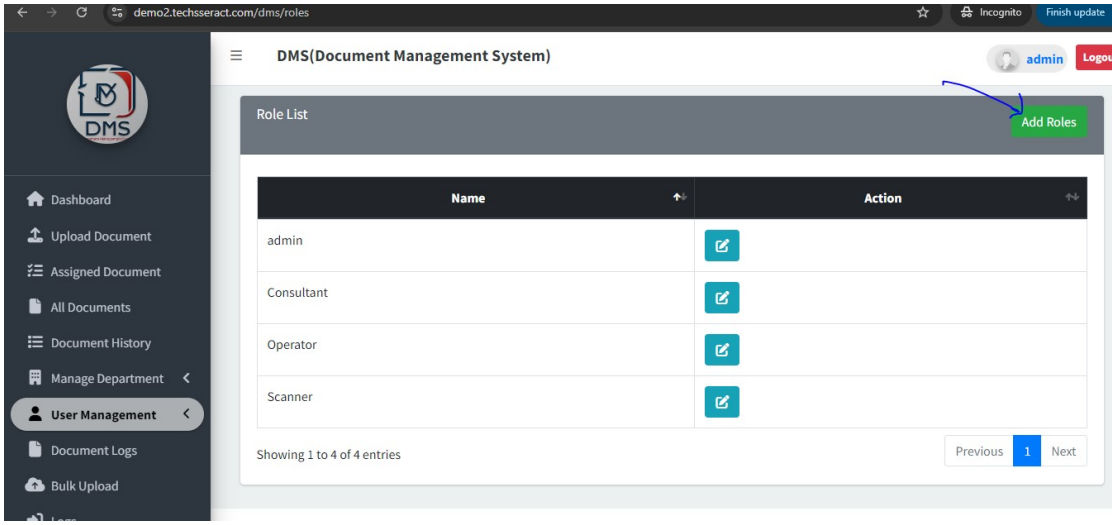
step6- load the new seeders inside the DatabaseSeeder

```
public function run(): void
    {
        $this->call([
            UsersTableSeeder::class,
            RolesSeeder::class,
            PermissionSeeder::class,
        ]);
    }
```

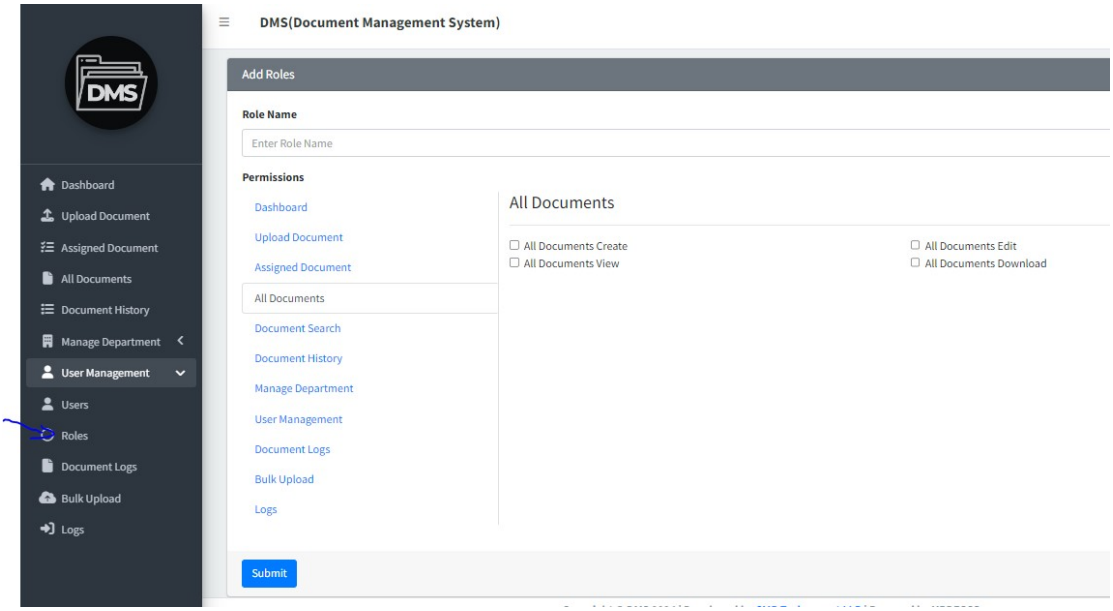
step7- Run this command to recreate tables and seeders

```
php artisan migrate:refresh --seed
```

step8- Create layout to add role Like this



step9- Add role form have listing of permission to assign roles



permission to show in lsit tab(code)-

```
public function create()
  {
    // $permissions = Permission::get();
    $roles = Role::get();
    $permissions = Permission::get();
    $data = [];
```

```
        foreach ($permissions as $permission) {
            $temp = explode('.', $permission->name);
            if (!isset($data[$temp[0]])) {
                $data[$temp[0]] = [];
            }
            $name = '';
            for ($i = 0; $i < count($temp); $i++) {
                $namePart = str_replace('_', ' ', $temp[$i]);
                $name .= $namePart;
                if ($i < count($temp) - 1) {
                    $name .= ' ';
                }
            }
            $data[$temp[0]][] = (object)['name' => $name, 'id' => $permission->id];
        }
        $dataArray = $data;

        return view('role.create', compact('dataArray','roles'));
    }
```

Role Blade Form to add permission-

```
@extends('layouts.app')
@section('title', 'DMS | Role Create')
@section('content')
<div class="container-fluid">
    <div class="row">
        <div class="col-md-12">
            <div class="card card-secondary">
                <div class="card-header">
```

```
            <h3 class="card-title">Add Roles</h3>
        </div>
        <form action="{{ route('roles.store') }}" method="POST">
            @csrf
            <div class="card-body">
                <div class="form-group">
                    <label for="roleName">Role Name</label>

                    <input type="text" name="name" class="form-control" id="roleName"
placeholder="Enter Role Name" required>
                </div>
                <div class="form-group">
                    <label for="permissions">Permissions</label>
                    <div class="row">
                        <div class="col-5 col-sm-3">
                            <div class="nav flex-column nav-tabs h-100" id="vert-tabs-tab"
role="tablist" aria-orientation="vertical">
                                @foreach($dataArray as $key=>$list)
                                <a class="nav-link" id="{{$key}}-tab" data-toggle="pill"
href="#{{$key}}" role="tab" aria-controls="{{$key}}" aria-selected="true">
                                    @php
                                    $formattedKeyTitle = ucwords(str_replace('_', ' ', $key));
                                    @endphp
                                    {{$formattedKeyTitle}}
                                </a>
                                @endforeach

                            </div>
                        </div>
                        <div class="col-7 col-sm-9">
```

```
<div class="tab-content" id="vert-tabs-tabContent">

    @foreach($dataArray as $key=>$item)

        <div class="tab-pane text-left fade {{ $loop->first ? 'show active' :
'' }}" id="{{$key}}" role="tabpanel" aria-labelledby="{{$key}}-tab">
            @php
                $formattedKey = ucwords(str_replace('_', ' ', $key));
            @endphp
            <h4>{{ $formattedKey }}</h4>
            <hr>
            <div class="row">

                @foreach ($item as $keyval=>$list)

                    <div class="col-6">
                        <div class="form-check">
                            <input class="form-check-input" type="checkbox"
                                name="permission[]" id="permission_{{ $list->id }}"
                                value="{{ $list->id }}">
                            <label class="form-check-label"
                                for="permission_{{ $list->id }}">
                                {{ Str::title($list->name) }}
                            </label>
                        </div>
                    </div>
                @endforeach
            </div>
        </div>
```

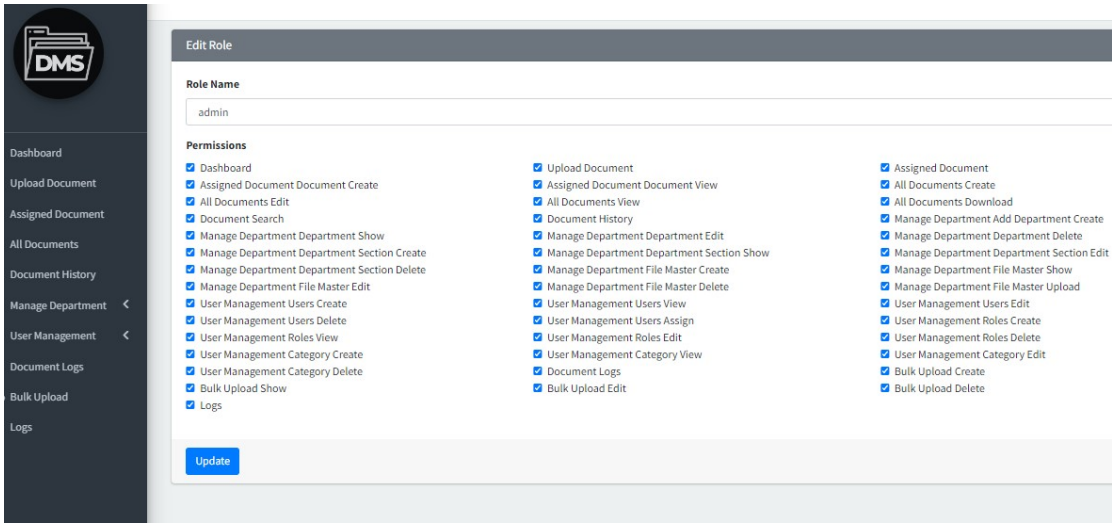
```
                        @endforeach


                            </div>
                          </div>
                        </div>
                      </div>
                    </div>
                    <div class="card-footer">
                      <button type="submit" class="btn btn-primary">Submit</button>
                    </div>
                  </form>
                </div>
              </div>



    </div>
</div>
@endsection
```

Save the permission to the roles controller code-

```
public function store(Request $request)
    {
        $this->validate($request, [
            'name' => 'required|unique:roles,name',
            'permission' => 'required|array',
        ]);
        $role = Role::create(['name' => $request->input('name')]);
```

```
    $permissionNames = $request->input('permission');
    $permissions = Permission::whereIn('id', $permissionNames)->pluck('id');
    $role->syncPermissions($permissions);

    return redirect()->route('roles.index')
        ->with('success', 'Role created successfully');
  }
```

Edit And Update code of roled assign permissions-



Controller code-

```
 public function edit($id)
  {
    $role = Role::find($id);
    $permissions = Permission::get();
    $rolePermissions = DB::table("role_has_permissions")->
```

```
where("role_has_permissions.role_id", $id)
            ->pluck('role_has_permissions.permission_id', 'role_has_permissions.permission_id')
            ->all();
        return view('role.edit', compact('role', 'permissions', 'rolePermissions'));
    }

    public function update(Request $request, $id)
    {

        $this->validate($request, [
            'name' => 'required',
            'permissions.*' => 'exists:permissions,id',
        ]);

        $role = Role::find($id);
        $role->name = $request->input('name');
        $role->save();
        $permissionNames = $request->input('permissions');
        if (!empty($permissionNames)) {
            $validPermissions = Permission::whereIn('id', $permissionNames)->pluck('id');
            $role->syncPermissions($validPermissions);
        } else {
            $role->syncPermissions([]);
        }
        return redirect()->route('roles.index')
            ->with('success', 'Role updated successfully');
```

```
}
```

blade code Role edit-

```
@extends('layouts.app')
@section('title', 'DMS | Role Edit')
@section('content')
<div class="container-fluid">
  <div class="row">
    <div class="col-md-12">
      <div class="card card-secondary">
        <div class="card-header">
          <h3 class="card-title">Edit Role</h3>
        </div>
        <form action="{{ route('roles.update', $role->id) }}" method="POST">
          @csrf
          @method('PUT')
          <div class="card-body">
            <div class="form-group">
              <label for="roleName">Role Name</label>
              <select name="name" id="name" class="form-control">
                <option value="{{ $role->name }}">{{ $role->name }}</option>
              </select>

            </div>
```

```
                <div class="form-group">
                    <label for="permissions">Permissions</label>
                    <div class="row">
                        @foreach($permissions as $permission)
                            <div class="col-md-4">
                                <div class="form-check">
                                    <input type="checkbox" name="permissions[]"
value="{{ $permission->id }}" class="form-check-input" id="permission{{ $permission->id }}"
                                        @if($role->permissions->contains($permission->id)) checked
@endif>
                                    <label class="form-check-label" for="permission{{ $permission->
id }}">{{ $formattedKeyTitle = ucwords(str_replace(['.', '_'], ' ', $permission->name)); }}
</label>
                                </div>
                            </div>
                        @endforeach
                    </div>
                </div>
            </div>
            <div class="card-footer">
                <button type="submit" class="btn btn-primary">Update</button>
            </div>
        </form>
    </div>
  </div>
</div>
@endsection
```

step-10 - Create a middleware 'CheckPermission'

```
php artisan make:middleware CheckPermission
```

asssign in kernel.php(inside middlewarealiases)-

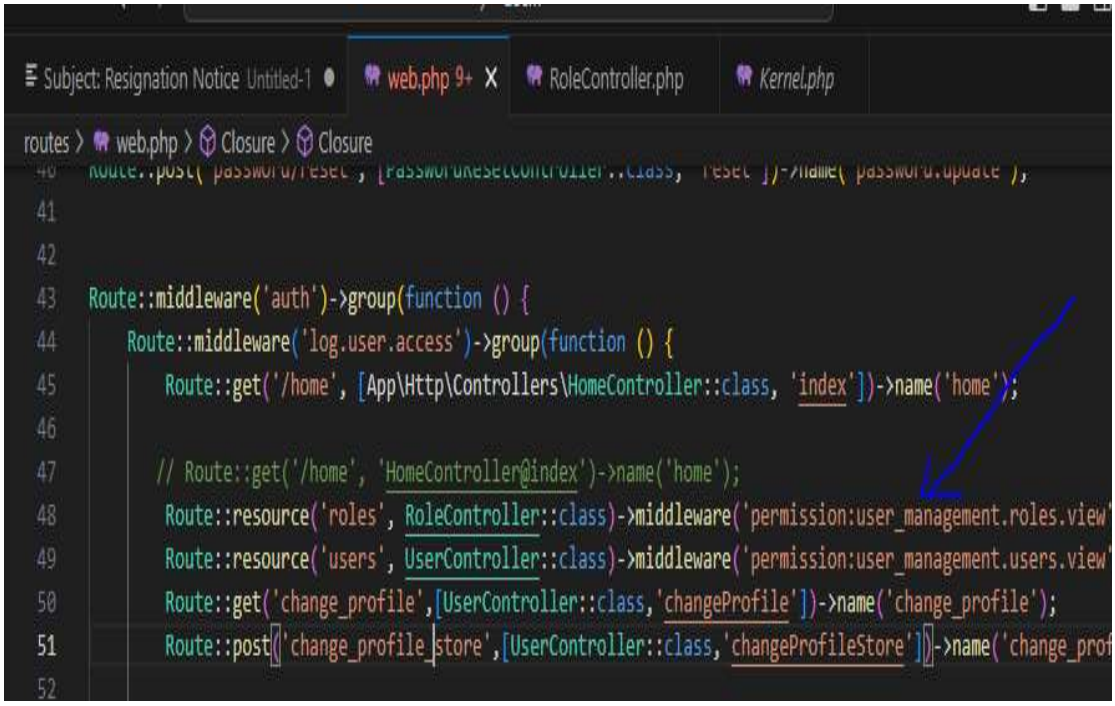
```
'permission' => \App\Http\Middleware\CheckPermission::class,
```

CheckPermission.php-

```
<?php

namespace App\Http\Middleware;

use Closure;
use Illuminate\Http\Request;
use Illuminate\Support\Facades\Auth;
use Symfony\Component\HttpFoundation\Response;

class CheckPermission
{
    /**
     * Handle an incoming request.
     *
     * @param  \Closure(\Illuminate\Http\Request): (\Symfony\Component\HttpFoundation
```

```
\Response)  $next
     */
    public function handle(Request $request, Closure $next, $permission)
    {
        // Check if the user is authenticated and has the specified permission
        if (Auth::check() && Auth::user()->can($permission)) {
            return $next($request);
        }

        // Redirect or abort if permission check fails
        return redirect('home')->with('error', 'You do not have permission to access this page.');

    }
}
```

step-10 - Apply this Permission middleware on Web



like this-

Route::resource('roles', RoleController::class)->
middleware('permission:user_management.roles.view');

on blade file apply permission-

```
@can('assigned_document.document.view')
<li class="nav-item">
    <a href="{{ route('assigned_document') }}" class="nav
    <i class="fa fa-tasks nav-icon" aria-hidden="true"></
        <p>Assigned Document</p>
    </a>
</li>
@endcan
@can('all_documents.view')
<li class="nav-item">
    <a href="{{ route('documents.index') }}" class="nav-l
    <i class="fa fa-file nav-icon" aria-hidden="true"></i
        <p>All Documents</p>
```