Laravel server side validation:-

```
$("#student_form").on("submit",function(e){
        e.preventDefault();
        // var _token=$("input[name=_token]").val();
        // var name=$("input[name=name]").val();
        // var email=$("input[name=email]").val();
        // var password=$("input[name=password]").val();
        $.ajax({
                url : $(this).attr('action'),
                type: $(this).attr('method'),
                data: new FormData(this),
                processData:false,
                contentType:false,
                beforeSend:function()
                {
                        $(document).find('.error').text('');
                },
                success:function(data)
                {
                        console.log(data.status);
                        if(data.status=='0'){
                                $.each(data.error,function(key,value){
                                        $("."+key+"_err").text(value[0]);
                                });


                        }else{
                                alert(data.message);
                        }




                }
        });
        });
```

```
<form method="post" action="/student-save" id="student_form">
@csrf
  <div class="form-group">
      <label>Name : </label>
      <input type="text" name="name" class="form-control">
      <span class="error name_err"></span>
  </div>
  <div class="form-group">
      <label>Email : </label>
      <input type="text" name="email" class="form-control">
      <span class="error email_err"></span>
  </div>
  <div class="form-group">
      <label>Mobile : </label>
      <input type="text" name="mobile" class="form-control">
      <span class="error mobile_err"></span>
  </div>
  <input type="submit" value="Save" class="btn btn-info">
</form>
```

```
public function saveStudent(Request $request){
		$validator=Validator::make($request->all(),[
				'name' =>'required',
				'email' =>'required',
				'mobile' =>'required'
		]);
		if(!$validator->passes()){
				return response()->json(["status"=>0,"error"=>$validator->errors()->toArray()]);
		}
		$data=[
				"name"=>$request->input('name'),
				"email"=>$request->input('email'),
				"mobile"=>$request->input('mobile')
		];
		$sql=DB::table("students")->insert($data);
		return response()->json(["status"=>1,"message"=>"Data saved successfully"]);
}
```

Queue Mail

Step 1:-
First you migrate your migration.

Step 2:-
run cmd for queue table.

```
php artisan queue:table
php artisan migrate
```
then create a new table, which name is jobs

Step 3:-
Create Queue Job
```
php artisan make:job SendEmailJob
```
now you can see in app folder create a nwe folder, which name is 'jobs', and create a file inside jobs table.
open SendEmailJob.php file

```
use Mail;
use App\Models\User;
```

protected $details; ye kisi function me nahi rahega. only class ke under rahega.

```
public function __construct($details)
{
   $this->details = $details;
}


public function handle()
{
   $email=$this->details['email'];
   $name=$this->details['name'];
   $input['subject'] = $this->details['subject'];
   $dat=["email"=>$email];
   $input['email'] = $email;
   $input['name'] = $name;

   Mail::send('welcome', $dat, function($message) use($input){
      $message->to($input['email']);
      $message->subject($input['subject']);
   });
}
```

```
//for send bulk sms
public function handle()
{
   $data=DB::table('users')->get();

   $input['subject'] = $this->details['subject'];
   $dat=["email"=>"hello"]; //send data to view
   foreach ($data as $key => $value) {

      $input['email'] = $value->email;
      $input['name'] = $value->name;
      \Mail::send('email', $dat, function($message) use($input){
         $message->to($input['email'], $input['name'])
            ->subject($input['subject']);
      });
   }

}
```

Step 4:-
create a controller

```
public function sendmail(Request $request)
{
   $details = [
      'subject' => 'Welcome Mail',
      'email'=>'suman.krgr8@gmail.com',
      'name'=>'suman'
   ];

   // send all mail in the queue.
   $job = (new \App\Jobs\SendEmailJob($details))
      ->delay(
         now()
         ->addSeconds(2)
      );

   dispatch($job);
   return back();
   echo "mail send successfully in the background...";
}
```

```
php artisan queue:work
```

Breze

install breeze:-

```
composer require laravel/breeze --dev
php artisan breeze:install
```

```
use illuminate\Support\Facades\Auth;
```

get login user ful detal

```
Auth::user()
```

if you want get only id of logined user

```
Auth::id();
```

if you want to get only name of logined user

```
Auth::user()->name;
```

if you want to get logined user detail from request

```
public function index(Request $request)
{
   return $request->user();
}
```

if you want to check user is logined or not

```
if(Auth::check())
{
            //
}
```

if you want to restrist route, logined user access and without logined not access

```
Route::get('/get',[PostController::class,'index'])->middleware('auth');
```

ye middleware default kernal.php me add rahta hai

```
'auth' => \App\Http\Middleware\Authenticate::class
```

Seeder

How to use faker:-
first create a seeder
php artisan make:seeder StudenSeeder

```
use Faker\Factory as Faker;
public function run()
{
        $faker=Faker::create();
        foreach(range(1,10) as $value){
                DB::table('students')->insert([
                        "name" => $faker->name(),
                        "city" => $faker->city(),
                        "fee" => $faker->randomFloat(2),
              'gender' => $faker->randomElement($array = array ('male', 'female')) ,
                ]);
        }
}
```

Now go to databaseSeeder.php

```
public function run(){
        $this->call([
                StudentSeeder::class,
        ]);
}
```

Now call seeder
php artisan db:seed

How to run specific seeder
php artisan db:seed --class=StudentSeeder

GATES

how to define gates:-
define(),allow(),denies(),forUser(),any(),none(),authorize(),check(),can(),cannot(),insepect(),before()
after()
on blade:-
@can
@cannot
@canany

Where write the gates method:-
Gates are define within the boot method of the App\Provider\AuthServiceProvider

```
use illuminate\Support\Facades\Gate;
public function boot()
{
        $this->registerPolicies();//allready exist in boot method
        Gate::define('isAdmin',function($user){
                if($user->email==='suman@gmail.com')
                {
                        return true;
                }
                else
                {
                        return false;
                }
        });
}
```

Another way to write Gate code:
create a folder in App, Folder name Gate
App\Gate\AdminGate.php

```
<?php
namespace App\Gate;
class AdminGate
{
        public function check_admin($user)
        {
                if($user->email==='suman@gmail.com')
                {
                        return true;
                }
                else
                {
                        return false;
                }
        }
}
```

Now you go to boot method of AuthServiceProvider

```
use illuminate\Support\Facades\Gate;
use App\Gate\AdminGate;
public function boot()
{
        $this->registerPolicies();
        Gate::define('isAdmin',[AdminGate::class,'check_admin']);
}
```

How to check by middleware

```
Route::get('/post',[PostController::class,'index'])->middleware(['auth','can:isAdmin']);
```

How to check on blade

```
@can('isAdmin')
//
@endcan

@cannot()...@endcannot

$canany()...@endcanany
```

How to check on controller:-

```
public function edit($id)
{
        $post=Post::find($id);
        if(Gate::deines('isAdmin',$post))
        {
                abort(403);
        }
        return view('edit',compact('post'));
}
```

CUSTOM FAÇADE

Step 1 :-
Create A folder In App Like 'Suman' and create a file like Invoice.php
Invoice.php

```
<?php
namespace App\Suman;
use Carbon\Carbon;

class Invoice {
    public function companyName(){
        return 'Theequicom pvt ltd';
    }

}
```

Step 2 :-
Create another file in app->suman foler like InvoiceFacade.php

```
<?php

namespace App\Suman;

use Illuminate\Support\Facades\Facade;

class InvoiceFacade extends Facade{
    protected static function getFacadeAccessor()
    {
            return 'invoice';
    }
}
```

Step 3:-
Create a service provider class

```
php artisan make:provider SumanServiceProvider
```

it's create a file in app->provider

```
use App\Suman\Invoice;
public function boot()
{
    $this->app->bind('invoice',function(){
        return new Invoice();
    });
}
```

Now go to app->confic
provider section
App\Providers\SumanServiceProvider::class,

aliases section
'Invoice'=> App\Suman\InvoiceFacade::class

echo Invoice::companyName();

Multiple Database connection

On model

```
class McibModel extends Model {

   protected $connection= 'second_db_connection';

   protected $table = 'agencies';

}

return array(
   'connections' => array(
      'mysql' => array(
         'driver'    => 'mysql',
         'host'      => 'localhost',
         'database'  => 'database1',
         'username'  => 'user1',
         'password'  => 'pass1'
         'charset'   => 'utf8',
         'collation' => 'utf8_unicode_ci',
         'prefix'    => '',
      ),
 'second_db_connection' => array(
            'driver'    => 'mysql',
            'host'      => 'localhost',
            'database'  => 'database2',
            'username'  => 'user2',
            'password'  => 'pass2'
            'charset'   => 'utf8',
            'collation' => 'utf8_unicode_ci',
            'prefix'    => '',
        ),
    ),
```

How to specific database connect by query builder

```
$programs=DB::connection('mysql2')
->table('node')
->where('type', 'Programs')
->get();
```

EXCEL IMPORT

```
composer require maatwebsite/excel
php artisan migrate
php artisan make:import UsersImport --model=User
```

```
use App\Imports\ExcelImport;
use Excel;
public function excelSave(Request $request){
   $file=$request->file('excelfile');
   $data=Excel::Import(new ExcelImport,$file);
   dd($data);

}
```

App->Import

```
use Illuminate\Support\Collection;
use Maatwebsite\Excel\Concerns\ToCollection;
use Maatwebsite\Excel\Concerns\WithMultipleSheets;

use App\Imports\StudentImport;
use App\Imports\AccountImport;
class ExcelImport implements WithMultipleSheets
{
   public function sheets() : array
   {
      return [
         0=>new StudentImport,
         1=>new AccountImport
      ];
   }
}
```

App->import->StudentImport

```
use Illuminate\Support\Collection;
use Maatwebsite\Excel\Concerns\ToCollection;
use DB;
use Illuminate\Support\Facades\Validator;
use Maatwebsite\Excel\Concerns\WithHeadingRow;
class StudentImport implements ToCollection,WithHeadingRow
{
    public function collection(Collection $collection)
    {
        Validator::make($collection->toArray(), [
            '*.name' => 'required',
            '*.email' => 'required',
            '*.mobile' => 'required',
         ])->validate();

        foreach($collection as $row){
            DB::table('students')->insert([
                "name"=>$row['name'],
                "email"=>$row['email'],
                "mobile"=>$row['mobile']
            ]);
        }
    }
}
```

App->import->Accountimport

```
use Illuminate\Support\Collection;
use Maatwebsite\Excel\Concerns\ToCollection;
use DB;
class AccountImport implements ToCollection
{
    /**
    * @param Collection $collection
    */
    public function collection(Collection $collection)
    {
        foreach($collection as $row){
            DB::table('users')->insert([
                "name"=>$row[0],
                "email"=>$row[1],
                "password"=>$row[2]
            ]);
        }
    }
}
```

On View File :

```
<div class="col-xl-6">
@if (count($errors) > 0)
   <div class="row">
      <div class="col-md-8 col-md-offset-1">
        <div class="alert alert-danger alert-dismissible">
           <button type="button" class="close" data-dismiss="alert" aria-hidden="true">×</button>
           <h4><i class="icon fa fa-ban"></i> Error!</h4>
           @foreach($errors->all() as $error)
           {{ $error }} <br>
           @endforeach
        </div>
      </div>
   </div>
   @endif



<form method="post" action="excel-import" enctype="multipart/form-data">
   @csrf
   <div class="form-group">
      <label>Excel</label>
      <input type="file" name="excelfile" class="form-control">
   </div>
   <input type="submit" value="Upload" class="btn btn-info">
</form>
</div>
```

EVENT

```
php artisan make:event SendMail
```

app/Events/SendMail.php

```
public $userId;
public function __construct($userId)
{
   $this->userId = $userId;
}
```

```
php artisan make:listener SendMailFired --event="SendMail"
```

app/Listeners/SendMailFired.php

```
public function handle(SendMail $event)
{
   $user = User::find($event->userId)->toArray();
   Mail::send('emails.mailEvent', $user, function($message) use ($user) {
      $message->to($user['email']);
      $message->subject('Event Testing');
   });
}
```

app/Providers/EventServiceProvider.php

```
protected $listen = [
   'App\Events\SendMail' => [
      'App\Listeners\SendMailFired',
   ],
];
```

On Controller

```
use Event;
use App\Events\SendMail;
public function index()
{
   Event::fire(new SendMail(2));
   return view('home');
}
```

Event :-
To simplify, we can say an event is an action taken in the application, and the listener is the operation that responds to the event.

Middleware

Session check by Middleware:-

```
php artisan make:middleware CustomAuth;
now go to CustomAuth.php middleware
import
use Illuminate\Http\Request;
use Session;
public function handle(Request $request, Closure $next)
{

   if(!session('user'))
   {
      return redirect()->route('user.index');
   }

   return $next($request);
}
```

On Controller:-

```
function login(Request $request)
{
   $email=$request->email;
   $password=$request->password;
   $data=DB::table('users')->where(['email'=>$email,'password'=>$password])->select('name','email')-
>first();
   if($data)
   {
      $request->session()->put('user',$email);
      return redirect('admin/dashboard');
   }
   else
   {
      return "Not";
   }
}
```

Now go to kernel.php

```
'myauth'=>[
   \App\Http\Middleware\CustomAuth::class,
],
```

Now on route:-

```
Route::get('admin/login', function () {
   if(Session::has('user'))
   {
      return view('admin.dashboard');
   }
   return view('admin.login');
})->name('user.index');

Route::group(['middleware'=>'myauth'],function(){
   Route::view('/admin/register','admin.register')->name('user.register');
   Route::Post('user/signup',[UserController::class,'signup'])->name('user.signup');
   Route::post('user/login',[UserController::class,'login'])->name('user.login');
   Route::view('/admin/dashboard','admin.dashboard')->name('user.dashboard');
});
```

Middleware
Laravel Middleware acts as a bridge between a request and reaction.
Middleware provide a convenient mechanism for filtering HTTP request. For example, Laravel includes a middleware that verifies the user is authenticated or not. If the user is not authenticated, the middleware will redirect the user to the login screen. However, if the user is authenticated, the middleware will allow the request to proceed further into the application.

Pagination

```
public function index(Request $request)
{
   $users = User::paginate(5);

   return view('users', compact('users'));
}

{!! $users->links() !!}
```

Throting:-

In Laravel we use throttle middleware to restrict the amount of traffic for a given route or group of routes. The throttle middleware accepts two parameters that determine the maximum number of requests that can be made in a given number of minutes.
Got to routeServiceProvider.php

```
RateLimiter::for('api', function (Request $request) {
        return Limit::perMinute(60)->by(optional($request->user())->id ?: $request->ip());
  });
```

```
Route::middleware('throttle:60,1')->get('/user', function () {
     //
});
```

I you want to create a custom throtal:-

```
RateLimiter::for(test_name, function (Request $request) {
  Return Limit::perMinute(7)->response(function(){
          Return response(‘Limit excedded,please try later’)
  });
});
```

```
RateLimiter::for(‘check’,function(Request $request){
   If($request->has(‘role’) && $request->get(‘role’)!=’admin’){
      Return Limit::perMinute(7)->response(function(){
          Return response(‘Limit Exceded please try latter’);
      });
   }
});
```

Service provider

Service providers in laravel application is the central place where application is bootstrapped. That is, laravel's core services and our application's services, classes and their dependencies are injected in service container through providers.

If you open the config/app.php, file you will see a providers array, here all default service provider are listed.

All service providers extend the Illuminate\Support\ServiceProvider class. Most service providers contain a register and a boot method. Within the register method, you should only bind things into the service container.

```
public function register()
{
   $this->app->bind('SiteRepo', function($app) {
      return new SiteRepo();
   });
}
```

if we need to register a view composer within our service provider? This should be done within the boot method.

```
View::composer(['demo1', 'demo2'], function($view) {
      $data=DB::table('students')->get();
      $view->with('key', $data);
   });
```

Service container

The Laravel service container is a powerful tool for managing class dependencies and performing dependency injection.

So whenever you want to inject a service into other services, you can add it into constructor or method, and it’s injected automatically from service container by the service provider.

What is facade

Facades provide a "static" interface to classes that are available in the application's service container.

What is faker

Faker is a PHP package that generates dummy data for testing. With Faker you can generate mass amount of testing data as you needed.

What is seeder

With the help of seeder you can insert dulk dummy data into your database

first create a seeder
php artisan make:seeder StudenSeeder

```
use Faker\Factory as Faker;
public function run()
{
        $faker=Faker::create();
        foreach(range(1,10) as $value){
                DB::table('students')->insert([
                        "name" => $faker->name(),
                        "city" => $faker->city(),
                        "fee" => $faker->randomFloat(2),
                ]);
        }
}
```

Now go to databaseSeeder.php

```
public function run(){
        $this->call([
                StudentSeeder::class,
        ]);
}
```

Now call seeder
php artisan db:seed

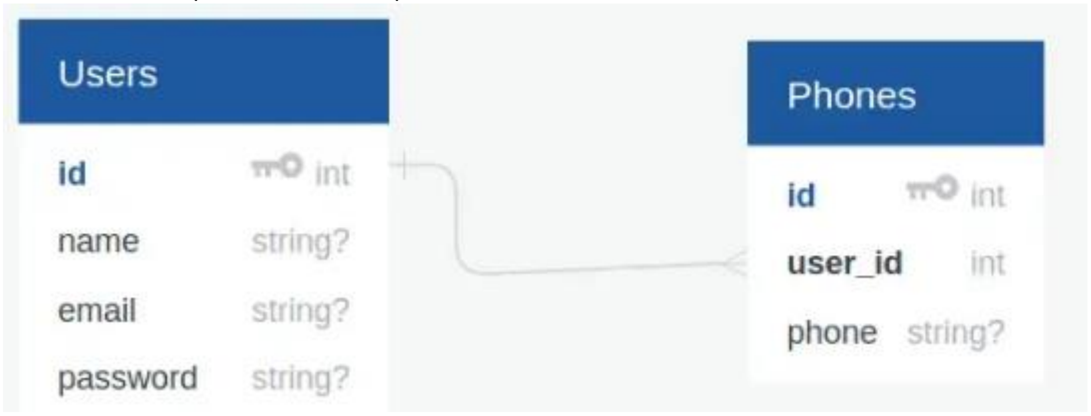
How to run specific seeder
php artisan db:seed --class=StudentSeeder

What is dependency injection

The Laravel service container is a powerful tool for managing class dependencies and performing dependency injection. Dependency injection is a fancy phrase that essentially means this: class dependencies are "injected" into the class via the constructor or, in some cases, "setter" methods.

Laravel Relation:-

One to One Eloquent Relationship



On User Model:

```
public function phone()
{
   return $this->hasOne('App\Phone');
}
```

On Phone Model

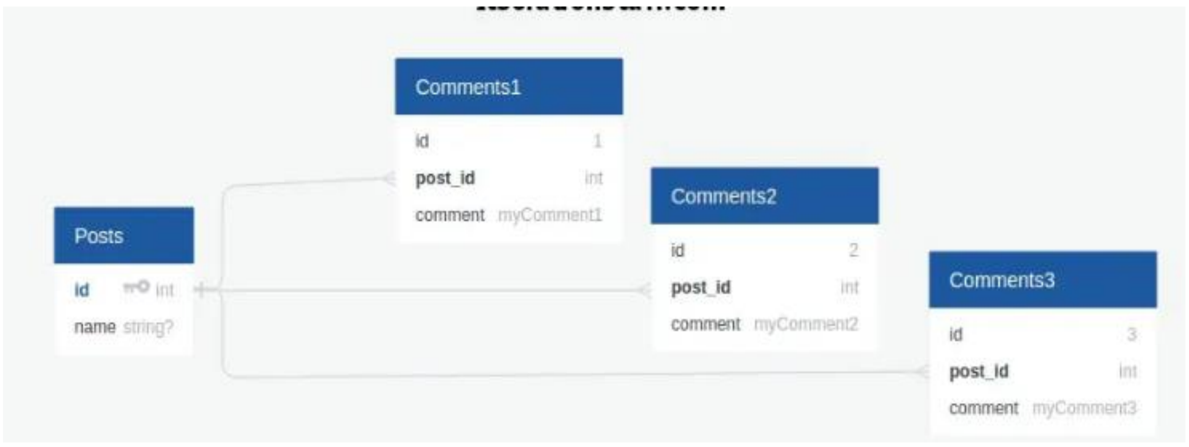
```
public function user()
{
   return $this->belongsTo('App\User');
}
```

Retrieve Records:

```
$phone = User::find(1)->phone;
dd($phone);

$user = Phone::find(1)->user;
dd($user);
```

One to Many Eloquent Relationship :-
I have tow table. Posts and Comment table. Every Post have multiple comment



On Post Model:

```
public function comments()
{
   return $this->hasMany(Comment::class);
}
```

On Comment Model:-

```
public function post()
{
   return $this->belongsTo(Post::class);
}
```

Retrieve Records:

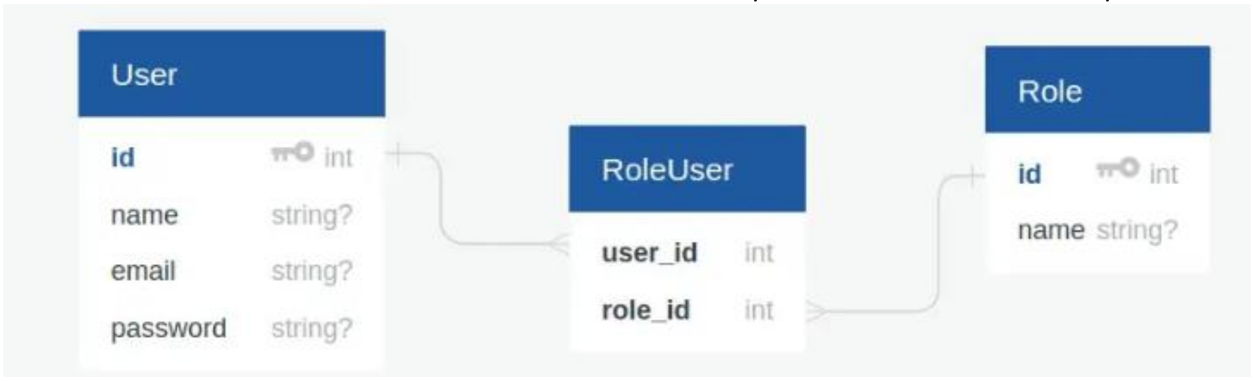
Get comment data by Post Model:-

```
$comment=Post::find(1)->comments;
dd($comment);
```

Get post data by Comment model

```
$post=Comment::find(1)->post;
dd($post);
```

Many to Many Eloquent Relationship:-
I have 3 table User and Role and RoleUser. One User have many role and One role have many user



On User Model:-

```
public function roles()
{
   return $this->belongsToMany(Role::class, 'role_user');
}
```

On Role Model:-

```
public function users()
{
   return $this->belongsToMany(User::class, 'role_user');
}
```

Retrieve Records:

Get roles by user Model:-

```
$roles=User::find(1)->roles;
dd($roles);
```

Get User By Role Model

```
$users=Role::find(1)->users;
dd($users);
```