

# 1. Route Parameter( যা route এর মধ্যে curly braces {} এর মধ্যে define করতে হয়) এবং Query Parameter (যা browser এ ? দিয়ে key=value & key=value পাঠাতে হয়)

## রুল : route parameter

### Rules for Route Parameters in Laravel

#### 1. Define Parameters in Curly Braces {}

Route parameters are defined in curly braces within the route URL.

php

Copy code

```
Route::get('/user/{id}', [UserController::class, 'show']);
```

- Example URL:

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Copy code

```
http://example.com/user/10
```

- Here, 10 is the value passed as the route parameter {id}.

## রুল : query parameter

#### 1. Begin Query Parameters with ? :

Add a ? after the base URL to start the query string.

text

Copy code

```
http://example.com/resource?key=value
```

#### 2. Separate Multiple Parameters with & :

Use & between key-value pairs to add multiple query parameters.

text


Copy code

```
http://example.com/resource?key1=value1&key2=value2
```

## Using Both

### URL Example

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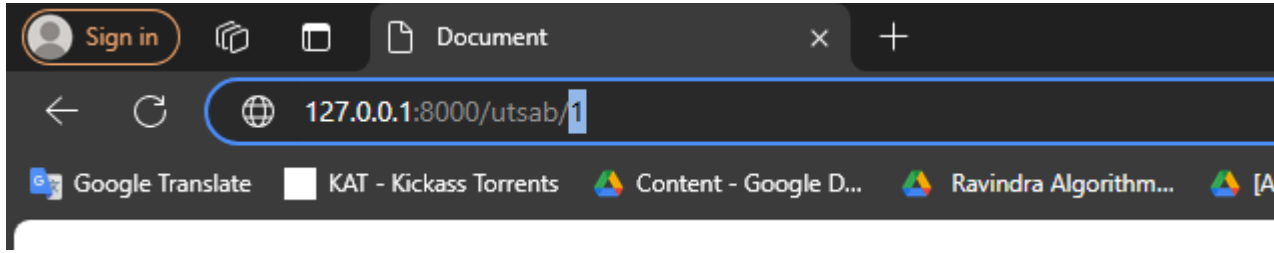
 Copy code

```
http://127.0.0.1:8000/utsab/10?name=John&age=25
```

- **Route Parameters:** `/utsab/{id}` ( `10` in the example).
- **Query Parameters:** `name=John&age=25` (everything after `?` ).

# 1. How to send dynamic data in url (Send data in route parameter)

(i) এখানে 1 pass হচ্ছে এটা আমরা route এ curly bracket {{ }} এ ডিফাইন করব এবং controller এ রিসিভ করব।



(ii) /utsab এতটুকু static কিন্তু /1 এটা dynamic /2 /3 যে কোন কিছু হতে পারে।

Variable এর জন্য {{ }} কিন্তু route এর জন্য {}

এখানে id না দিয়ে যে কোন variable use করা যাবে।

## Step 1: Define a Route with a Parameter

In your `routes/web.php` file, define a route that includes a parameter. For example:

php

Copy code

```
use App\Http\Controllers\PageController;

Route::get('/user/{id}', [PageController::class, 'showUser']);
```

- `{id}` is the URL parameter. You can name it anything.
- The value of `{id}` will be passed to the controller method as an argument.

```
1 <?php
2
3 use Illuminate\Support\Facades\Route;
4 use App\Http\Controllers\SimpleController;
5
6 Route::get('/utsab/{id}', [SimpleController::class, 'showMessage']);
7
```

(ii) Controller এ parameter দিব যাতে route থেকে pass করা parameter receive করতে পারে।

এখানে variable name একই হতে হবে এটা কোন বাধ্যবাধকতা নাই তবে একই রাখা ভাল route এর সাথে।

## Step 2: Add the Method in the Controller

In your controller (e.g., `PageController`), define the method to handle the route and accept the parameter:

```
php Copy code

<?php

namespace App\Http\Controllers;

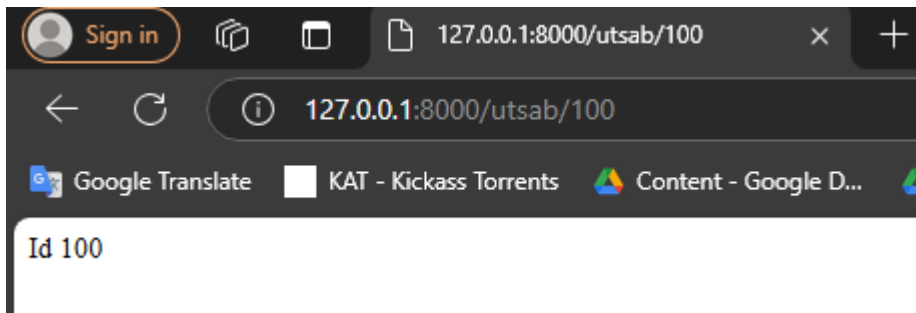
use Illuminate\Http\Request;

class PageController extends Controller
{
    public function showUser($id)
    {
        return "User ID is: " . $id;
    }
}
```



```
1  <?php
2
3  namespace App\Http\Controllers;
4
5  use Illuminate\Http\Request;
6
7  class SimpleController extends Controller
8  {
9      public function showMessage($id){
10         return "Id ".$id;
11     }
12 }
13
```

(iii) show output



## 2.How to send data in dynamic url(Add Default Values for Parameters) **(Send data in route parameter)**

যদি কোন parameter pass না করে তাহলে ডিফল্ট ভ্যালু সেট করা যায় ।

You can make parameters optional by adding ? after the parameter name and providing a default value in the method:

(route এ ? দিতে হয় এবং controller এ ডিফল্ট ভ্যালু দিতে হয়।)

### Route:

php

Copy code

```
Route::get('/user/{id?}', [PageController::class, 'showUser']);
```

### Controller:

php

Copy code

```
public function showUser($id = 'No ID provided')
{
    return "User ID is: " . $id;
}
```

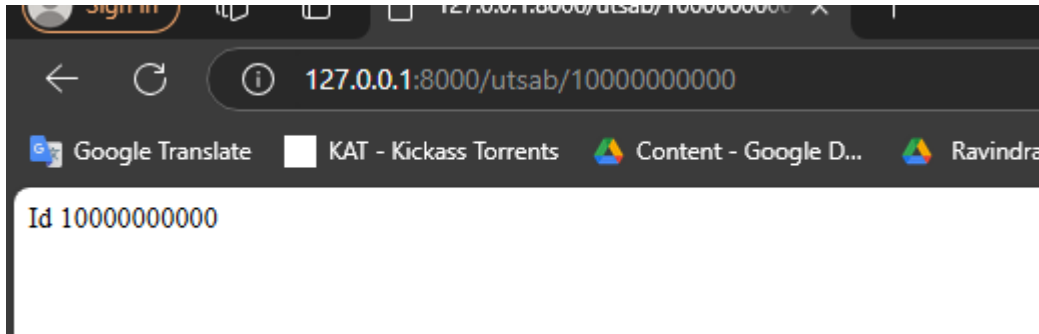
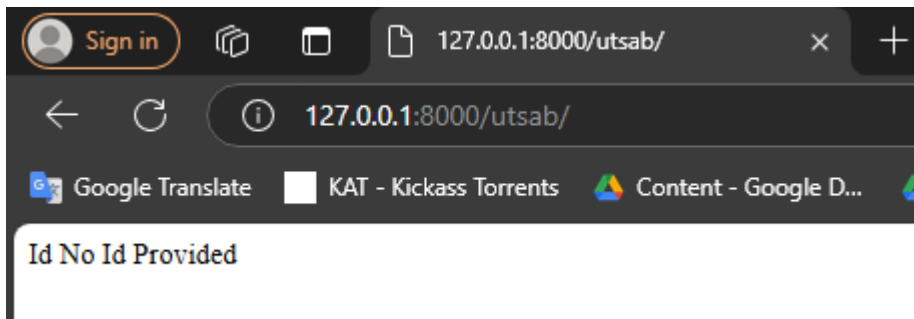




```
1  <?php
2
3  use Illuminate\Support\Facades\Route;
4  use App\Http\Controllers\SimpleController;
5
6  Route::get('/utsab/{id?}',[SimpleController::class,'showMessage']);
7
```



```
1  <?php
2
3  namespace App\Http\Controllers;
4
5  use Illuminate\Http\Request;
6
7  class SimpleController extends Controller
8  {
9      public function showMessage($id='No Id Provided'){
10         return "Id ".$id;
11     }
12 }
13
```



### 3.How to send multiple data in url (**Send data in route parameter**)

**(i)**multiple parameter recive

#### Step 1: Define a Route with Multiple Parameters

In your `routes/web.php` file, define a route with multiple parameters:

php

Copy code

```
use App\Http\Controllers\PageController;  
  
Route::get('/user/{id}/{name}', [PageController::class, 'showUser']);
```

- `{id}` and `{name}` are placeholders for the parameters.
- They will be passed to the controller method as arguments.



```
1 <?php
2
3 use Illuminate\Support\Facades\Route;
4 use App\Http\Controllers\SimpleController;
5
6 Route::get('/utsab/{id}/babu/{email}',[SimpleController::class,'showMessage']);
7
```

(ii) receive data in controller

## Step 2: Add the Method in the Controller

In your controller (e.g., `PageController`), define the method to accept the parameters:



```
1 <?php
2
3 namespace App\Http\Controllers;
4
5 use Illuminate\Http\Request;
6
7 class SimpleController extends Controller
8 {
9     public function showMessage($id,$email){
10         return "Utsab Id ".$id ." Babu Email ".$email;
11     }
12 }
13
```



(iii)show data

Sign in

127.0.0.1:8000/utsab/10/babu/uts

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Utsab Id 10 Babu Email utsab@duet.ac.bd

## 4. How to send data in url (**Send data in query parameter**)

(i) data pass করব ?key=value format এ

### 1. Using Query Parameters

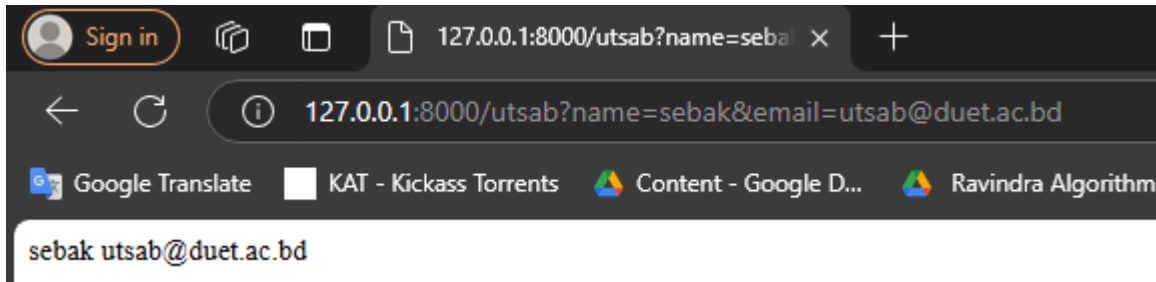
Query parameters are appended to the URL after a `?`. For example:

URL Format:

arduino

Copy code

```
http://example.com/resource?key1=value1&key2=value2
```



(ii) Route এ কিছু দিতে হবে না।

```
1 <?php
2
3 use Illuminate\Support\Facades\Route;
4 use App\Http\Controllers\SimpleController;
5
6 Route::get('/utsab',[SimpleController::class,'showMessage']);
7
```

(iii) Controller এ Request এ ডাটা রিসিভ করতে হয়।

বিভিন্নভাবে ডাটা রিসিভ ও প্রদর্শন করা যায়।

Way1:

```
1  <?php
2
3  namespace App\Http\Controllers;
4
5  use Illuminate\Http\Request;
6
7  class SimpleController extends Controller
8  {
9      public function showMessage(Request $request){
10
11          return $request->name." " ".$request->email;
12      }
13  }
14
```

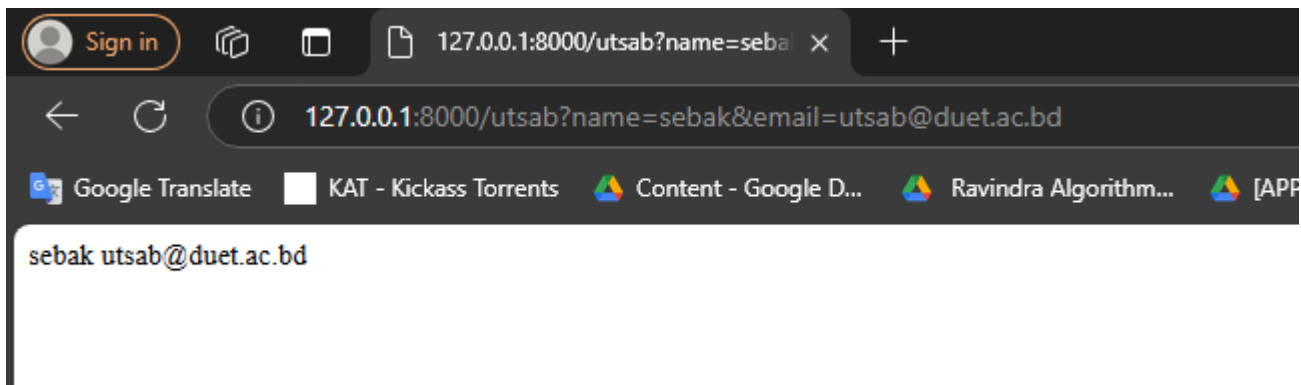
Way2:

```
1  <?php
2
3  namespace App\Http\Controllers;
4
5  use Illuminate\Http\Request;
6
7  class SimpleController extends Controller
8  {
9      public function showMessage(Request $request){
10
11          $name=$request->query('name');
12          $email=$request->query('email');
13          return $name." " ".$email;
14      }
15  }
16
```

Way3:

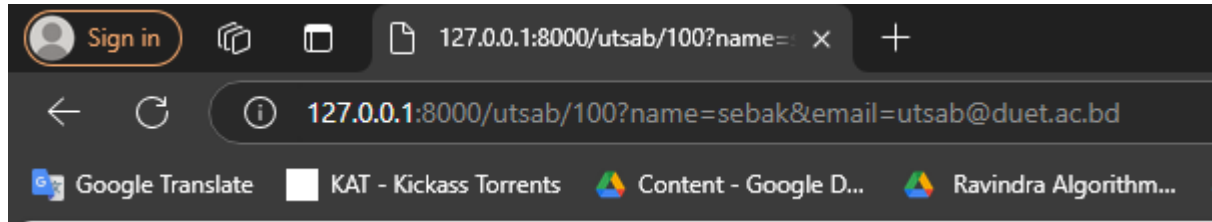
```
1  <?php
2
3  namespace App\Http\Controllers;
4
5  use Illuminate\Http\Request;
6
7  class SimpleController extends Controller
8  {
9      public function showMessage(){
10         $name=request('name');
11         $email=request('email');
12         return $name." ".$email;
13     }
14 }
15
```

**Output:**



## 5.How to send data in url (**Send data in query parameter and route parameter**)

(i) send data in url(route+query)



(ii) Define route parameter in route

```
1 <?php
2
3 use Illuminate\Support\Facades\Route;
4 use App\Http\Controllers\SimpleController;
5
6 Route::get('/utsab/{id}',[SimpleController::class,'showMessage']);
7
```

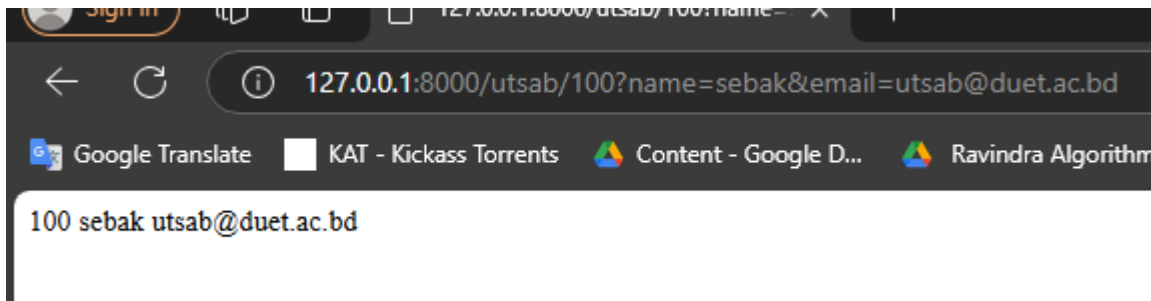
(iii) Recive query parameter in controller

```

1  <?php
2
3  namespace App\Http\Controllers;
4
5  use Illuminate\Http\Request;
6
7  class SimpleController extends Controller
8  {
9      public function showMessage($id, Request $request){
10         $name=$request->name;
11         $email=$request->email;
12         return $id." ".$name." ".$email;
13     }
14 }
15

```

## (iv) Output



## Key Methods for Query Parameters with Request

### 1. `$request->query('key')` :

Retrieve a specific query parameter.

php

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```
$value = $request->query('key');
```

### 2. `$request->input('key')` :

Retrieve the value of the query parameter (also works for input data in POST requests).

php


Copy code

```
$value = $request->input('key');
```

### 3. Retrieve All Query Parameters:

Use the `all()` method to get all query parameters as an associative array.

php


 Copy code

```
$allParams = $request->query();  
// Example output: ['name' => 'John', 'age' => 25]
```

### 4. Check for a Query Parameter:

Use the `has()` method to check if a specific query parameter exists.

php


 Copy code

```
if ($request->has('name')) {  
    $name = $request->query('name');  
}
```

### 5. Default Value if Parameter Missing:


Provide a default value if the parameter does not exist.

php

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```
$name = $request->query('name', 'Guest'); // Default to 'Guest' if 'name' is not present
```

php

 Copy code

```
public function show(Request $request)  
{  
    $validated = $request->validate([  
        'name' => 'required|string',  
        'age' => 'required|integer|min:18',  
    ]);  
  
    return "Validated Name: {$validated['name']}, Age: {$validated['age']}";  
}
```