# ●Bullet (檢查N+1查詢)

## 1. 配置

```
$ rails _5.2.8.1_ new n+1
$ cd n+1
$ rails db:migrate
$ rails g scaffold User name
$ rails g scaffold Order item price:integer user:references
vi app/models/order.rb #新增 belongs_to :user
vi app/models/user.rb #新增 has_many :orders
```

#### 2. 部屬 Bullet

```
$ vi Gemfile #在 gem 'rails' 後加入 gem 'bullet', group:
'development'
$ bundle
$ rails g bullet:install
```

#### 3. 修改

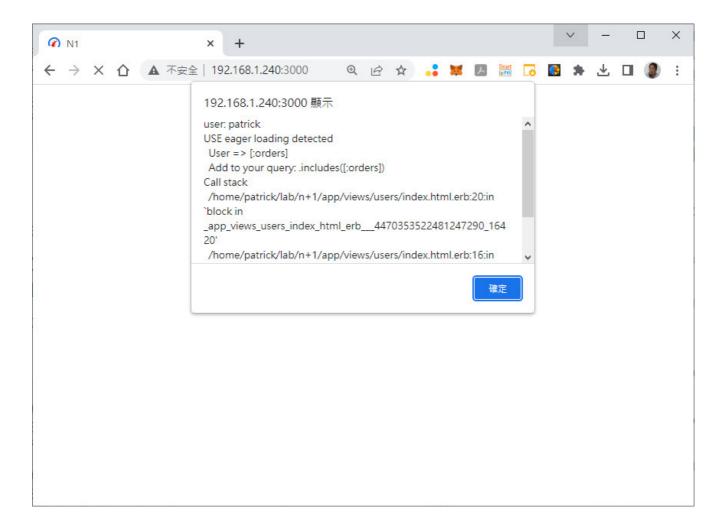
```
Pindex.html.erb (~/lab/n+1/app/views/users) - VIM
2 a/v/u/index.html.erb
/home/patrick/lab/n+1/
                           1 id="notice"><%= notice %>
□ app/
                           3 <h1>Users</h1>
 ☐ assets/
 channels/
 controllers/
                          5 
                             <thead>
 ☐ helpers/
 □ jobs/
                               □ mailers/
                                Name
                                Order Count
Total Price
 □ models/
 □ views/
   □ layouts/
                                 □ orders/
   □ users/
                              </thead>
      _form.html.erb
_user.json.jbuilder
                              edit.html.erb
                               <% @users.each do |user| %>
      index.html.erb
      index.json.jbuilder
                                  <t= user.orders.count %>

      new.html.erb
      show.html.erb
                            show.json.jbuilder
] bin/
□ config/
□ db/
□ lib/
                                 □ log/
                         NORMAL app/views/users/index.html.erb
                                                                    eruby.html 3%
"app/views/users/index.html.erb" 31L, 680C
```

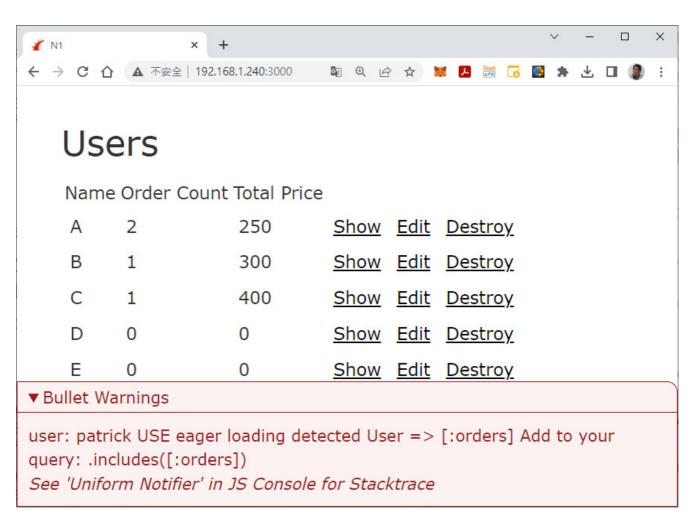
### 4. 測試

```
$ rails s -b 0.0.0.0
打開瀏覽器 http://localhost:3000
```

• 修正前 => @user = User.all



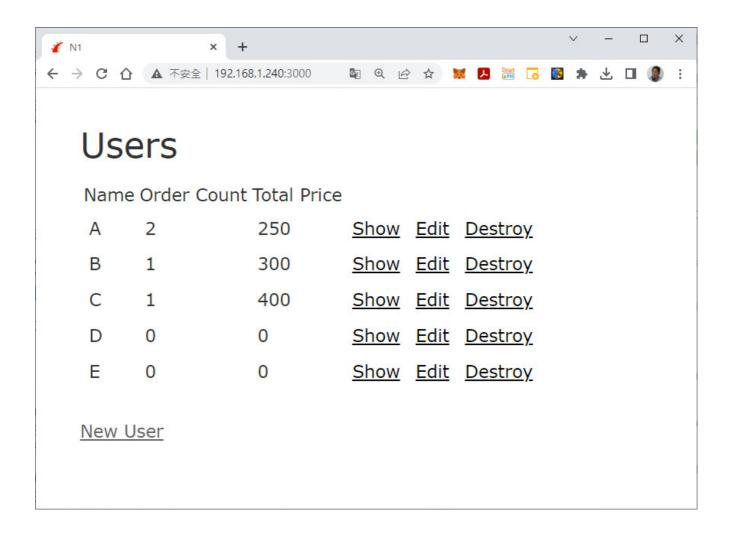
₹ N1	× +							~	_		]	×
← → C ↔	▲ 不安全   192.16	58.1.240:3000	<b>©</b> ⊕ 6	<b>☆</b>	, L	Smart (#710)		*	<u></u>			:
Use	ers											
Name Order Count Total Price												
А	2	250	Show	<u>Edit</u>	Des	<u>troy</u>						
В	1	300	<u>Show</u>	<u>Edit</u>	Des	<u>troy</u>						
С	1	400	<u>Show</u>	<u>Edit</u>	Des	<u>troy</u>						
D	0	0	<u>Show</u>	<u>Edit</u>	Des	<u>troy</u>						
E	0	0	Show	<u>Edit</u>	Des	<u>troy</u>						
New User												
INEW O	301											
▶ Bullet Warnings												



```
■ users controller rb (~/lab/n+1/app/controllers) - VIM

2 a/c/users_controller.rb
/home/patrick/lab/n+1/
                                      class UsersController < ApplicationController
                                        before action :set user, only: %i[ show edit update destroy ]
 app/
  □ assets/
  channels/
 □ controllers/
                                         def index
    □ concerns/
      application_controller.r
orders_controller.rb
users_controller.rb
                                          @users = User.all.includes(:orders)
  □ helpers/
  □ jobs/
                                        def show
 □ mailers/
                                        end
  □ models/
 □ views/
                                        def new
□ bin/
 config/
                                          @user = User.new
□ db/
                                         end
□ lib/
 log/
□ public/
                                        def edit
  storage/
 test/
  tmp/
 vendor/
  config.ru
                                           @user = User.new(user_params)
  Gemfile
                                                                                                  ruby 9% 7: 5
                                             app/controllers/users_controller.rb
 app/controllers/users controller.rb" 71L, 1824C [w]
```

• 修正後 => @user = User.all.includes(:orders)



= END =