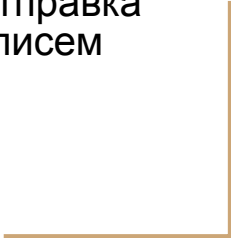




Active Job в Rails

фоновые задачи, `sidekiq`, отправка
писем, предпросмотр писем



Active Job. Создание задания

Active Job – инструмент для создания очередей и задач, которые будут выполняться в этих очередях. Задачи могут запускаться параллельно и выполнять различные действия: обновления и удаление данных из БД, выполнение отложенной отправки писем.

```
→ rails_course git:(main) x rails g job posts_retention
  invoke  test_unit
  create  test/jobs/posts_retention_job_test.rb
  create  app/jobs/posts_retention_job.rb
```

```
3.1.1 :002 > PostsRetentionJob.perform_now(Post.last, option1: :option)
(0.6ms) SELECT sqlite_version(*)
Post Load (0.5ms) SELECT "posts".* FROM "posts" ORDER BY "posts"."id" DESC LIMIT ? [[LIMIT
Performing PostsRetentionJob (Job ID: 4b442372-280e-4274-9f08-9768447fa3de) from Async(default)
0000010a15a3c8 @uri=#<URI::GID gid://rails-course/Post/45198>, {:option1=>:option}
Performed PostsRetentionJob (Job ID: 4b442372-280e-4274-9f08-9768447fa3de) from Async(default)
```

```
3.1.1 :003 > PostsRetentionJob.perform_later
Enqueued PostsRetentionJob (Job ID: 71c00c72-7a87-440f-95ca-ca9098e0677f) to Async(default)
=>
#<PostsRetentionJob:0x000000010aa958c0
```

```
3.1.1 :010 > PostsRetentionJob.set(wait: 1.week).perform_later
Enqueued PostsRetentionJob (Job ID: f71b286f-a9ab-45a6-b613-bff90d10bb58)
```

```
posts_retention_job.rb x
1 class PostsRetentionJob < ApplicationJob
2   queue_as :default
3
4   def perform(*args)
5     # Do something later
6   end
7 end
```

```
application_job.rb x
1 class ApplicationJob < ActiveJob::Base
2   # Automatically retry jobs that encountered a
3   # retry_on ActiveRecord::Deadlocked
4
5   # Most jobs are safe to ignore if the underlying
6   # discard_on ActiveJob::DeserializationError
7 end
```

Выполнение задач с Sidekiq

```
33 gem 'sidekiq'
34
```

```
Installing connection_pool 2.3.0
Installing redis 4.8.0
Fetching sidekiq 6.5.7
Installing sidekiq 6.5.7
```

```
9 module RailsCourse
10   class Application < Rails::Application
11     # Initialize configuration defaults for our application
12     config.load_defaults 7.0
13
14     config.active_job.queue_adapter = :sidekiq
15   end
16 end
```

```
→ rails_course git:(main) x bundle exec sidekiq
```

```
m,
`$b
.ss, $$:
`$$P,d$P' ..md$P""
,,$$$$b md$$$P^'
.d$$$$$ $$$P'
$$^' `` $$$'
$: ,$$:
`b :$$
$$:
$$
.d$$
```

```
2022-09-30T07:01:31.146Z pid=6220 tid=4i8 INFO: Booted Rails 7.0.3.1 application in development environment
2022-09-30T07:01:31.146Z pid=6220 tid=4i8 INFO: Running in ruby 3.1.1p18 (2022-02-18 revision 53f5fc4236) [arm64-darwin21]
2022-09-30T07:01:31.146Z pid=6220 tid=4i8 INFO: See LICENSE and the LGPL-3.0 for licensing details.
2022-09-30T07:01:31.146Z pid=6220 tid=4i8 INFO: Upgrade to Sidekiq Pro for more features and support: https://sidekiq.org
2022-09-30T07:01:31.146Z pid=6220 tid=4i8 INFO: Booting Sidekiq 6.5.7 with Sidekiq::RedisConnection::RedisAdapter options {}
2022-09-30T07:01:31.147Z pid=6220 tid=4i8 INFO: Starting processing, hit Ctrl-C to stop
2022-09-30T07:01:31.148Z pid=6220 tid=6no class=PostsRetentionJob jid=87b57a4ab63d7de327164577 INFO: start
2022-09-30T07:01:31.207Z pid=6220 tid=6no class=PostsRetentionJob jid=87b57a4ab63d7de327164577 INFO: Performing PostsRetentionJob (Job ID: 5
841eb82-1256-4c6c-818d-f628f094f92a) from Sidekiq(default) enqueued at 2022-09-30T07:01:12Z
2022-09-30T07:01:31.343Z pid=6220 tid=6no class=PostsRetentionJob jid=87b57a4ab63d7de327164577 INFO: Performed PostsRetentionJob (Job ID: 58
41eb82-1256-4c6c-818d-f628f094f92a) from Sidekiq(default) in 135.34ms
2022-09-30T07:01:31.343Z pid=6220 tid=6no class=PostsRetentionJob jid=87b57a4ab63d7de327164577 elapsed=0.195 INFO: done
```

sidekiq.yml

```
1 :concurrency: 5
2 :queues:
3   - [urgent, 2]
4   - default
5   - low
```

```
bundle exec sidekiq -C config/sidekiq.yml
```

При работе с докером, для sidekiq принято запускать отдельный контейнер.

Callbacks и обработка исключений

```
1 class PostsRetentionJob < ApplicationJob
2   queue_as :default
3
4   around_perform :log_perform
5
6   rescue_from(StandardError) do |exc|
7     ErrorNotificationService.notify_admin(exc.message)
8   end
9
10  def perform(*args)
11    Post.where(created_at: ..1.month.ago, published: false).destroy_all
12  end
13
14  private
15
16  def log_perform(&block)
17    time = Time.now
18    block.call
19    end_time = Time.now
20    Rails.logger.info("Job perform time: #{end_time - time}")
21  end
22 end
```

```
class VideoProcessJob < ActiveJob::Base
  queue_as :default

  around_perform do |job, block|
    UserMailer.notify_video_started_processing(job.arguments.first)
    block.call
    UserMailer.notify_video_processed(job.arguments.first)
  end

  def perform(video_id)
    Video.find(video_id).process
  end
end
```

Доступные callback-и:

- before_enqueue
- around_enqueue
- after_enqueue
- before_perform
- around_perform
- after_perform

Настройка Action Mailer

```
→ rails_course git:(main) x rails g mailer User
  create  app/mailers/user_mailer.rb
  invoke  erb
  create  app/views/user_mailer
  invoke  test_unit
  create  test/mailers/user_mailer_test.rb
  create  test/mailers/previews/user_mailer_preview.rb
```

```
1 class UserMailer < ApplicationMailer
2   default from: 'notifications@test_course.com'
3
4   def welcome_email
5     @user = params[:user]
6     mail(to: @user.email, subject: 'Welcome to our service')
7   end
8 end
```

```
welcome_email.html.erb x
1 <h1>Welcome to our service, <%= @user.first_name %></h1>
2 <p>
3   You have successfully signed up to example.com,
4   your username is: <%= @user.username %>.<br>
5 </p>
6 <p>Thanks for joining and have a great day!</p>
```

```
1 class ApplicationMailer < ActionMailer::Base
2   default from: "from@example.com"
3   layout "mailer"
4 end
```

```
mailer.html.erb x
1 <!DOCTYPE html>
2 <html>
3   <head>
4     <meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
5     <style>
6       /* Email styles need to be inline */
7     </style>
8   </head>
9
10  <body>
11    <%= yield %>
12  </body>
13 </html>
```

```
mailers
  application_mailer.rb
  user_mailer.rb
models
views
  layouts
  posts
  user_mailer
    welcome_email.html.erb
    welcome_email.text.erb
```

```
welcome_email.text.erb x
1 Welcome to our service, <%= @user.first_name %>
2
3 You have successfully signed up to example.com.
4
5 Thanks for joining and have a great day!
6
```

Отправка писем с Action Mailer

```
class UsersController < ApplicationController
  # ...

  # POST /users or /users.json
  def create
    @user = User.new(user_params)

    respond_to do |format|
      if @user.save
        # Сказать UserMailer отослать приветственное письмо после сохранения
        UserMailer.with(user: @user).welcome_email.deliver_later

        format.html { redirect_to(@user, notice: 'User was successfully created.') }
        format.json { render json: @user, status: :created, location: @user }
      else
        format.html { render action: 'new' }
        format.json { render json: @user.errors, status: :unprocessable_entity }
      end
    end
  end
end
```

```
3.1.1 :001 > UserMailer.with(user: User.last).welcome_email.deliver_now
(0.3ms) SELECT sqlite_version(*)
User Load (0.3ms) SELECT "users".* FROM "users" ORDER BY "users"."id" DESC LIMIT ?
Rendering layout layouts/mailer.html.erb
Rendering user_mailer/welcome_email.html.erb within layouts/mailer
Rendered user_mailer/welcome_email.html.erb within layouts/mailer (Duration: 0.4ms |
Rendered layout layouts/mailer.html.erb (Duration: 0.7ms | Allocations: 630)
Rendering layout layouts/mailer.text.erb
Rendering user_mailer/welcome_email.text.erb within layouts/mailer
Rendered user_mailer/welcome_email.text.erb within layouts/mailer (Duration: 0.2ms |
Rendered layout layouts/mailer.text.erb (Duration: 0.4ms | Allocations: 318)
UserMailer#welcome_email: processed outbound mail in 16.8ms
Delivered mail 6336af299293e_3023d5c1258f@MacBook-Pro-Alex.local.mail (2.9ms)
Date: Fri, 30 Sep 2022 12:56:09 +0400
From: notifications@test_course.com
To: test@mail.com
Message-ID: <6336af299293e_3023d5c1258f@MacBook-Pro-Alex.local.mail>
Subject: Welcome to our service
Mime-Version: 1.0
Content-Type: multipart/alternative;
  boundary="====_mimepart_6336af299245f_3023d5c12445";
  charset=UTF-8
Content-Transfer-Encoding: 7bit

====_mimepart_6336af299245f_3023d5c12445
Content-Type: text/plain;
  charset=UTF-8
Content-Transfer-Encoding: 7bit

Welcome to our service, Magda
```

Рассылка и отправка по имени

```
9 def weekly_letter
10   mail(to: User.limit(100).order(created_at: :desc).pluck(:email), subject: 'Weekly letter')
11 end
```

```
9 def weekly_letter
10   # mail(to: User.limit(100).order(created_at: :desc).pluck(:email), subject: 'Weekly letter')
11   mail(to: 'test_email1@test.com, test_email2@test.com', subject: 'Weekly letter')
12 end
```

```
3.1.1 :011 > UserMailer.weekly_letter.deliver_now
User Pluck (3.0ms)  SELECT "users"."email" FROM "users"
Rendering layout layouts/mailer.html.erb
Rendering user_mailer/weekly_letter.html.erb within layout layouts/mailer.html.erb
Rendered user_mailer/weekly_letter.html.erb within layout layouts/mailer.html.erb (Duration: 0.3ms)
Rendered layout layouts/mailer.html.erb (Duration: 0.3ms)
UserMailer#weekly_letter: processed outbound mail in 5.1ms
Delivered mail 6336b16d179ff_3023d5c12976@MacBook-Pro-Alex.local.mail (2.9ms)
Date: Fri, 30 Sep 2022 13:05:49 +0400
From: notifications@test_course.com
To: test@mail.com3093,
    test@mail.com3092,
    test@mail.com3091,
    test@mail.com3090,
```

```
4 def welcome_email
5   @user = params[:user]
6   mail(to: email_address_with_name(@user.email, @user.first_name), subject: 'Welcome to our service')
7 end
```

Delivered mail 6336b2e814c42_3023d5c1323e@MacBook-Pro-Alex.local.mail (2.9ms)
Date: Fri, 30 Sep 2022 13:12:08 +0400
From: notifications@test_course.com
To: Magda <test@mail.com3093>

Предпросмотр доступных писем

```
user_mailer_preview.rb x
1 # Preview all emails at http://localhost:3000/rails/mailers/user_mailer
2 class UserMailerPreview < ActionMailer::Preview
3   def welcome_email
4     test_user = User.new(
5       first_name: 'Test', last_name: 'User', username: 'username', email: 'test@mail.com'
6     )
7
8     UserMailer.with(user: test_user).welcome_email
9   end
10 end
```

From: notifications@test_course.com
To: Test <test@mail.com>
Date: Fri, 30 Sep 2022 09:18:00 +0000
Subject: **Welcome to our service**
Format: [View as HTML email](#)
Locale: [en](#)

Welcome to our service, Test

You have successfully signed up to example.com, your username is: username.

Thanks for joining and have a great day!

Полезные ссылки

https://rusrails.ru/active_job_basics – Описание Active Job;

<https://github.com/mperham/sidekiq/wiki/Getting-Started> – Документация гема Sidekiq;

<http://rusrails.ru/action-mailer-basics> – Описание Active Mailer;

<https://dev.to/morinoko/sending-emails-in-rails-with-action-mailer-and-gmail-35g4> – Пример настройки SMTP протокола с использованием Gmail.

Конец! Спасибо!