

Redmine - Patch #26747

Use find_by instead of where.first to remove unnecessary sorting

2017-08-23 06:28 - jwjw yy

| | | | |
|------------------------|-------------|------------------------|-----------|
| Status: | Closed | Start date: | |
| Priority: | Normal | Due date: | |
| Assignee: | Go MAEDA | % Done: | 0% |
| Category: | Performance | Estimated time: | 0.00 hour |
| Target version: | 4.0.0 | | |

Description

since where.first will issue query with order by primary key which is actually unnecessary.

```
redmine/app/helpers/application_helper.rb:909:      u = User.visible.where(:id => oid, :type => 'User').first
redmine/app/helpers/application_helper.rb:941:      if repository && (changeset =
Changeset.visible.where("repository_id = ? AND scmid LIKE ?", repository.id, "#{name}%").first)
redmine/app/helpers/application_helper.rb:966:      if p = Project.visible.where("identifier = :s OR LOWER(name) = :s", :s
=> name.downcase).first
redmine/app/helpers/application_helper.rb:970:      u = User.visible.where(:login => name, :type => 'User').first
redmine/app/helpers/application_helper.rb:975:      u = User.visible.where(:login => name, :type => 'User').first
redmine/app/models/issue_query.rb:474:      root_id, lft, rgt = Issue.where(:id => value.first.to_i).pluck(:root_id, :lft, :rgt).first
redmine/app/models/issue_query.rb:490:      parent_id = Issue.where(:id => value.first.to_i).pluck(:parent_id).first
redmine/app/models/issue_query.rb:497:      root_id, lft, rgt = Issue.where(:id => value.first.to_i).pluck(:root_id, :lft, :rgt).first
redmine/app/models/wiki_content_version.rb:94:      where("wiki_content_id = ? AND version < ?", wiki_content_id,
version).first
redmine/app/models/wiki_content_version.rb:102:      where("wiki_content_id = ? AND version > ?", wiki_content_id,
version).first
redmine/app/models/principal.rb:128:      Principal.visible(user).where(:id => id).first == self
redmine/app/models/token.rb:115:      token = Token.where(:action => action, :value => key).first
redmine/app/models/user.rb:196:      user = where(:identity_url => url).first
redmine/app/models/user.rb:489:      user = where("LOWER(login) = ?", login.downcase).first
redmine/app/models/user.rb:560:      h[project_id] = memberships.where(:project_id => project_id).first
redmine/app/models/wiki.rb:56:      page = pages.where("LOWER(title) = LOWER(?)", title).first
redmine/app/models/wiki.rb:59:      redirect = redirects.where("LOWER(title) = LOWER(?)", title).first
redmine/app/models/issue_import.rb:148:      elsif issue_id = items.where(:position => parent_issue_id).first.try(:obj_id)
redmine/app/models/issue_import.rb:193:      child_id = items.where(:position => child_position).first.try(:obj_id)
redmine/app/models/attachment.rb:271:      attachment = Attachment.where(:id => attachment_id, :digest =>
attachment_digest).first
redmine/app/models/time_entry_query.rb:150:      issue = Issue.where(:id => value.first.to_i).first
redmine/app/models/repository.rb:252:      changesets.where("revision = ?", s).first
redmine/app/models/repository.rb:254:      changesets.where("revision LIKE ?", s + '%').first
redmine/app/models/role.rb:296:      role = unscoped.where(:builtin => builtin).first
redmine/app/models/repository/git.rb:92:      changesets.where(:revision => name.to_s).first ||
redmine/app/models/repository/git.rb:93:      changesets.where('scmid LIKE ?', "#{name}%").first
redmine/app/models/repository/mercurial.rb:100:      cs = changesets.where(:scmid => s).first
redmine/app/models/repository/mercurial.rb:102:      cs = changesets.where(:revision => s).first
redmine/app/models/repository/mercurial.rb:105:      changesets.where('scmid LIKE ?', "#{s}%").first
redmine/app/models/enumeration.rb:47:      where(:is_default => true, :type => 'Enumeration').first
redmine/app/models/enumeration.rb:50:      where(:is_default => true).first
redmine/app/controllers/imports_controller.rb:100:      @import = Import.where(:user_id => User.current.id, :filename =>
params[:id]).first
```

Associated revisions

Revision 17586 - 2018-10-06 18:03 - Go MAEDA

Use `find_by` instead of `where.first` to remove unnecessary sorting (#26747).

Patch by Yuichi HARADA.

History

#1 - 2017-08-23 06:58 - Toshi MARUYAMA

- Category set to Code cleanup/refactoring
- Status changed from New to Needs feedback

Please post by attachment patch file.

#2 - 2017-08-23 07:15 - Toshi MARUYAMA

jwjl yy wrote:

| *since where.first will issue query with order by primary key which is actually unnecessary.*

Really? Do all your description "where"s call "order by"?

#3 - 2017-09-12 19:21 - jwjl yy

Toshi MARUYAMA wrote:

| *jwjl yy wrote:*

| | *since where.first will issue query with order by primary key which is actually unnecessary.*

| *Really? Do all your description "where"s call "order by"?*

yes

#4 - 2018-07-16 22:30 - jwjl yy

Removed advertisement -- [Holger Just](#)

#5 - 2018-07-29 03:25 - Go MAEDA

- Subject changed from use `find_by` to replace `where.first` to Use `find_by` instead of `where.first` to remove unnecessary sorting
- Category changed from Code cleanup/refactoring to Performance
- Status changed from Needs feedback to New
- Target version set to Candidate for next major release

Toshi MARUYAMA wrote:

jwfw yy wrote:

since where.first will issue query with order by primary key which is actually unnecessary.

Really? Do all your description "where"s call "order by"?

It is documented in the Rails API reference.

<https://api.rubyonrails.org/classes/ActiveRecord/FinderMethods.html#method-i-first>

*Find the first record (or first N records if a parameter is supplied). **If no order is defined it will order by primary key.***

```
> User.where(:login => 'admin').first
```

```
User Load (0.4ms) SELECT "users".* FROM "users" WHERE "users"."type" IN ('User', 'AnonymousUser') AND "users"."login" = ? ORDER BY "users"."id" ASC LIMIT ? [{"login", "admin"}, ["LIMIT", 1]]
```

```
> User.find_by(:login => 'admin')
```

```
User Load (0.4ms) SELECT "users".* FROM "users" WHERE "users"."type" IN ('User', 'AnonymousUser') AND "users"."login" = ? LIMIT ? [{"login", "admin"}, ["LIMIT", 1]]
```

#6 - 2018-08-12 11:25 - Go MAEDA

find_by is significantly faster than where.first.

```
require 'benchmark/ips'
```

```
Benchmark.ips do |x|
```

```
  x.report('where.first') { User.where(:login => 'admin').first }
```

```
  x.report('find_by') { User.find_by(:login => 'admin') }
```

```
end
```

```
$ bin/rails r bench-26747.rb
```

```
.  
.
```

```
(snip)
```

```
.  
.
```

```
Warming up -----
```

```
  where.first  80.000 i/100ms
```

```
  find_by     165.000 i/100ms
```

```
Calculating -----
```

```
  where.first  961.953 (± 5.5%) i/s - 4.800k in 5.005696s
```

```
  find_by     1.664k (± 4.6%) i/s - 8.415k in 5.066908s
```

#7 - 2018-10-03 03:19 - Yuichi HARADA

- *File 26747-where_first-to-find_by.patch added*

I changed where.first to find_by as follows.

1. "Primary key" is specified as a condition
2. "Unique index column" is specified as a condition
3. Only one registration like AnonymousUser

#8 - 2018-10-06 18:05 - Go MAEDA

- *Assignee set to Go MAEDA*

- *Target version changed from Candidate for next major release to 4.0.0*

Committed. Thank you for improving Redmine.

#9 - 2018-10-06 18:05 - Go MAEDA

- *Status changed from New to Closed*

Files

| | | | |
|------------------------------------|---------|------------|---------------|
| 26747-where_first-to-find_by.patch | 11.2 KB | 2018-10-03 | Yuichi HARADA |
|------------------------------------|---------|------------|---------------|