

Redmine - Defect #33941

Do not use timezone unaware methods

2020-09-01 07:53 - Yuichi HARADA

Status:	New	Start date:	
Priority:	Normal	Due date:	
Assignee:		% Done:	0%
Category:	Rails support	Estimated time:	0.00 hour
Target version:		Affected version:	
Resolution:			
Description			
If you set the timezone in config/additional_environment.rb and test it, any tests may fail.			
<pre>config.time_zone = 'International Date Line West' # UTC-12:00</pre>			
The test will always fail if the date of today on UTC and the date of today on config.time_zone are different.			
<pre>\$ RAILS_ENV=test bundle exec rake db:migrate:reset</pre>			
<pre>\$ RAILS_ENV=test bundle exec rake test</pre>			
Run options: --seed 21968			
<pre># Running:</pre>			
<pre>.....F</pre>			
Failure:			
MailerTest#test_reminders [./test/unit/mailer_test.rb:694]:			
"Bug #3: Error 281 when updating a recipe (5 days late)" not found in "1 issue(s) that are assigned to you are due in the next 42 days::"			
<pre>* eCookbook - Bug #3: Error 281 when updating a recipe (6 days late)</pre>			
View all issues (2 open)			
<pre>http://localhost:3000/issues?assigned_to_id=me&set_filter=1&sort=due_date%3Aasc</pre>			
<pre>--</pre>			
You have received this notification because you have either subscribed to it, or are involved in it.			
To change your notification preferences, please click here: http://hostname/my/account			
<pre>"</pre>			
<pre>bin/rails test test/unit/mailer_test.rb:687</pre>			
<pre>.....F</pre>			
Failure:			
MailerTest#test_reminders_should_sort_issues_by_due_date [./test/unit/mailer_test.rb:823]:			
<(?-mix:foo \(1 day late\))> expected but was			
<eCookbook - Bug #18: foo (2 days late)>..			
Expected 0 to be >= 1.			
<pre>bin/rails test test/unit/mailer_test.rb:811</pre>			
<pre>.....F</pre>			
Failure:			
MailerTest#test_reminders_language_auto [./test/unit/mailer_test.rb:717]:			
"Bug #3: Error 281 when updating a recipe (En retard de 5 jours)" not found in "1 demande(s) qui vous sont assignées arrivent à échéance dans les 42 prochains jours ::"			
<pre>* eCookbook - Bug #3: Error 281 when updating a recipe (En retard de 6 jours)</pre>			

```
Voir toutes les demandes (2 ouvertes)
http://localhost:3000/issues?assigned_to_id=me&set_filter=1&sort=due_date%3Aasc

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You have received this notification because you have either subscribed to it, or are involved in it.
To change your notification preferences, please click here: http://hostname/my/account
"

bin/rails test test/unit/mailer_test.rb:708

....F

Failure:
MailerTest#test_reminder_should_include_issues_assigned_to_groups [./test/unit/mailer_test.rb:773]:
:
"Assigned to group (Due in 5 days)" not found in "1 issue(s) that are assigned to you are due in the next 7 days::

* eCookbook - Bug #15: Assigned to group (Due in 4 days)

View all issues (2 open)
http://localhost:3000/issues?assigned_to_id=me&set_filter=1&sort=due_date%3Aasc

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You have received this notification because you have either subscribed to it, or are involved in it.
To change your notification preferences, please click here: http://hostname/my/account
"

bin/rails test test/unit/mailer_test.rb:749

.....F

Failure:
MailerTest#test_reminders_for_users [./test/unit/mailer_test.rb:746]:
"Bug #3: Error 281 when updating a recipe (5 days late)" not found in "1 issue(s) that are assigned to you are due in the next 42 days::

* eCookbook - Bug #3: Error 281 when updating a recipe (6 days late)

View all issues (2 open)
http://localhost:3000/issues?assigned_to_id=me&set_filter=1&sort=due_date%3Aasc

--
You have received this notification because you have either subscribed to it, or are involved in it.
To change your notification preferences, please click here: http://hostname/my/account
"

bin/rails test test/unit/mailer_test.rb:738

.....

Finished in 411.745744s, 12.2090 runs/s, 56.3649 assertions/s.
5027 runs, 23208 assertions, 5 failures, 0 errors, 7 skips

You have skipped tests. Run with --verbose for details.
$
```

Related issues:	
Related to Redmine - Defect #23189: Spent time by filter, offset by one day	New

History

#1 - 2020-09-01 08:02 - Yuichi HARADA

There are two possible causes for the test to fail.

- When using Date.today, Time.now, DateTime.now, the timezone in config.time_zone is ignored. You should use Date.current, Time.current, DateTime.current.
- Times of the day are not stored in table columns of type of date. However, in Query#date_clause([source:trunk/app/models/query.rb#L1465](https://github.com/rails/rails/blob/master/activerecord/lib/active_record/query_cache.rb#L1465)), because the where condition considering the time difference is created for this Date type table column, the SQL execution result is strange.

#2 - 2020-09-01 08:26 - Yuichi HARADA

- File fixed-33941.patch added

Yuichi HARADA wrote:

There are two possible causes for the test to fail.

- When using Date.today, Time.now, DateTime.now, the timezone in config.time_zone is ignored. You should use Date.current, Time.current, DateTime.current.
- Times of the day are not stored in table columns of type of date. However, in Query#date_clause([source:trunk/app/models/query.rb#L1465](https://github.com/rails/rails/blob/master/activerecord/lib/active_record/query_cache.rb#L1465)), because the where condition considering the time difference is created for this Date type table column, the SQL execution result is strange.

I will attach a patch to resolve these.

I've tested in the following time zones to make sure the tests don't fail.

```
config.time_zone = 'UTC' # UTC+-00:00

config.time_zone = 'Tokyo' # UTC+09:00
config.time_zone = 'Samoa' # UTC+13:00

config.time_zone = 'Alaska' # UTC-09:00
config.time_zone = 'International Date Line West' # UTC-12:00
```

#4 - 2021-03-10 09:05 - Mizuki ISHIKAWA

+1

After applying this patch, you should be able to enable Rails/Date for Rubocop, which is currently disabled.
<https://www.rubydoc.info/gems/rubocop/0.41.2/RuboCop/Cop/Rails/Date>

#5 - 2021-03-31 04:55 - Go MAEDA

- Subject changed from Test fails depending on time zone setting to Do not use timezone unaware methods
- Category set to Rails support

#6 - 2021-03-31 04:59 - Go MAEDA

- File RuboCop-RailsTimezone-RailsDate-offenses.txt added

Here is the result of the following command:

```
bundle exec rubocop --ignore-disable-comments --only Rails/TimeZone,Rails/Date
```

#7 - 2022-01-16 10:30 - Go MAEDA

- Related to Defect #23189: Spent time by filter, offset by one day added

Files

fixed-33941.patch	38.3 KB	2020-09-01	Yuichi HARADA
RuboCop-RailsTimezone-RailsDate-offenses.txt	60.1 KB	2021-03-31	Go MAEDA