NereidProject Documentation

Release 3.4.0.1

Openlabs Technologies & Consulting (P) Limited

May 21, 2017

Contents

1 Welcome To Nereid Project **3**
- 1.1 Overview . . . 3
- 1.2 Nereid User . . . 4

2 Installation **5**
- 2.1 Install required OS packages . . . 5
- 2.2 Virtual Environment . . . 5
- 2.3 How to install Nereid Project . . . 6

3 Getting Started **9**
- 3.1 A minimal application . . . 9
- 3.2 Admin Users . . . 11
- 3.3 Launching the application and template . . . 14

4 Nereid Project Tutorial **17**
- 4.1 Creating Your First Project . . . 17
- 4.2 Creating project on Tryton client . . . 18
- 4.3 Adding Participants to Project via Tryton Client . . . 19
- 4.4 The Project Management Screen . . . 20
- 4.5 People and Permission . . . 21
- 4.6 Creating Task . . . 22
- 4.7 Basic RST primer . . . 23
- 4.8 Updating task . . . 24
- 4.9 View my-tasks . . . 27
- 4.10 State of Task . . . 29
- 4.11 E-mail Notification . . . 30
- 4.12 Attachment . . . 31
- 4.13 Global Timesheet . . . 33
- 4.14 Project Planning . . . 39

5 Indices and tables **41**

Contents:

CHAPTER 1

Welcome To Nereid Project

This documentation is divided into different parts. We recommend that you get started with *Installation* and then head over to the *Getting Started*.

Nereid Project is an open-source collaborative development platform offered by Team Openlabs. It is mainly used for managing project processes. While it could be used for managing any kind of project, it is primarily used at Openlabs to manage software projects. It is designed to help organise projects & tasks. The aim is to connect everything together on a single interface, avoiding unnecessary time consumption, and track project's progress, task's status, shared files, time spent on individual tasks.

- Break project into multiple tasks, assign to project teammates to collaborate
- Gantt chart provides deep insights about progress
- Collaborative dashboard ties everything together
- Upload files from personal desktop, or internet link
- Organize efforts-Easily create, assign, and comment on tasks, so user always know what's getting done and who's doing it.
- Puts tasks together, so user can go to one place for all the history of the work.
- notifications via email make it effortless to stay on top of the details that matter to user.

and much more...

Overview

The goal of nereid project is to provide a friendly web based user interface to stakeholders outside the company to the powerful project management module of Tryton.

- Separate user accounts for users outside the company (like customers) without giving access to Tryton.
- Simplify the project management tasks to encourage participation from users who may not be tech savvy.

Nereid User

Nereid introduces a model of user management different from the default user management schema (res.user) of Tryton. Nereid project also makes use of the concept to provide logins to participants of the project. Internal employees of the company should in addition have their user accounts linked to their employee records so that timesheet entries can be marked by users who are also employees.

In addition, nereid project also introduces the idea of project administrators. Project administrators are created by adding nereid users to the project admins section on the company module. This is due for deprecation and will be replaced with the permissions system introduced in nereid. Nereid Users with the nereid_project.admin permission will be automatically given admin rights to all projects.

Note: Note that the permissions mentioned here are nereid.permissions and not the regular Tryton access control user groups.

CHAPTER 2

Installation

Install required OS packages

Some requirements to get installed, they might be in your package manager:

```
sudo apt-get install python-dev
sudo apt-get install python-pip
```

These are required for the Python package lxml:

```
sudo apt-get install libxml2-dev
sudo apt-get install libxslt-dev
```

Virtual Environment

For getting this running on your local machine, the easy way to do that is setting up the *virtualenvwrapper* first.

virtualenvwrapper

virtualenvwrappers are isolated Python environments. This helps isolate your dependencies, especially when used with pip. virtualenvwrapper provides some convenient short-hand shell commands to make virtualenv nicer to use.

If you are on Mac OS X or Linux, the following command will work for you in creating a virtualenv

```
$ sudo pip install virtualenvwrapper
```

Set up virtualenvwrapper

In your shell initialisation file (eg. ~/.bashrc), add two lines like this:

```
export WORKON_HOME=$HOME/.virtualenvs
source /usr/local/bin/virtualenvwrapper.sh
```

(Change the path to virtualenvwrapper.sh depending on where it was installed by pip.)

WORKON_HOME is a directory where virtualenvwrapper is going to collect the virtualenvs that you use it to create.

virtualenvwrapper provides the following commands:

```
mkvirtualenv foo
rmvirtualenv foo
workon foo # activate the virtualenv called foo
deactivate # whatever the currently active virtualenv is
```

Now `Create` a new virtualenv for project:

```
$ mkvirtualenv myproject
New python executable in myproject/bin/python
Installing setuptools.............done.
Installing pip...............done.
$ cd myproject
$ cdvirtualenv
```

Now, whenever you want to work on a project, you only have to activate the corresponding environment. On OS X and Linux, do the following

```
$ . venv/bin/activate
```

If you are a Ubuntu user, the following command is for you

```
$ workon myproject
(myproject)$
```

Either way, you should now be using your virtualenv (notice how the prompt of your shell has changed to show the active environment).

How to install Nereid Project

Nereid Project(a Project management system), has been implemented as a Web application to be accessed using a web browser.

To experience this you should have installed `tryton client`. Following commands is to be followed for installing Nereid Project's desktop client.

Nereid project can be installed like any other tryton module or python package as it comes bundled with a setup.py script. Alternatively the latest released version published to PYPI can be installed using PIP.

```
$ pip install trytond_nereid_project
```

A few seconds later and you are good to go.

So to start with, install following:

```
pip install psycopg2
pip install blinker
```

Both above packages should be installed by default but just in case to make sure, it they were not, they get installed in your current working environment.

Now, nereid-project is installed, to run the web app, Project Management system, refer *Getting Started*.

CHAPTER 3

Getting Started

Eager to get started? This page gives a good introduction to Nereid Project. It assumes that you already have Nereid and Nereid Project installed. If you do not, head over to then *Installation* section.

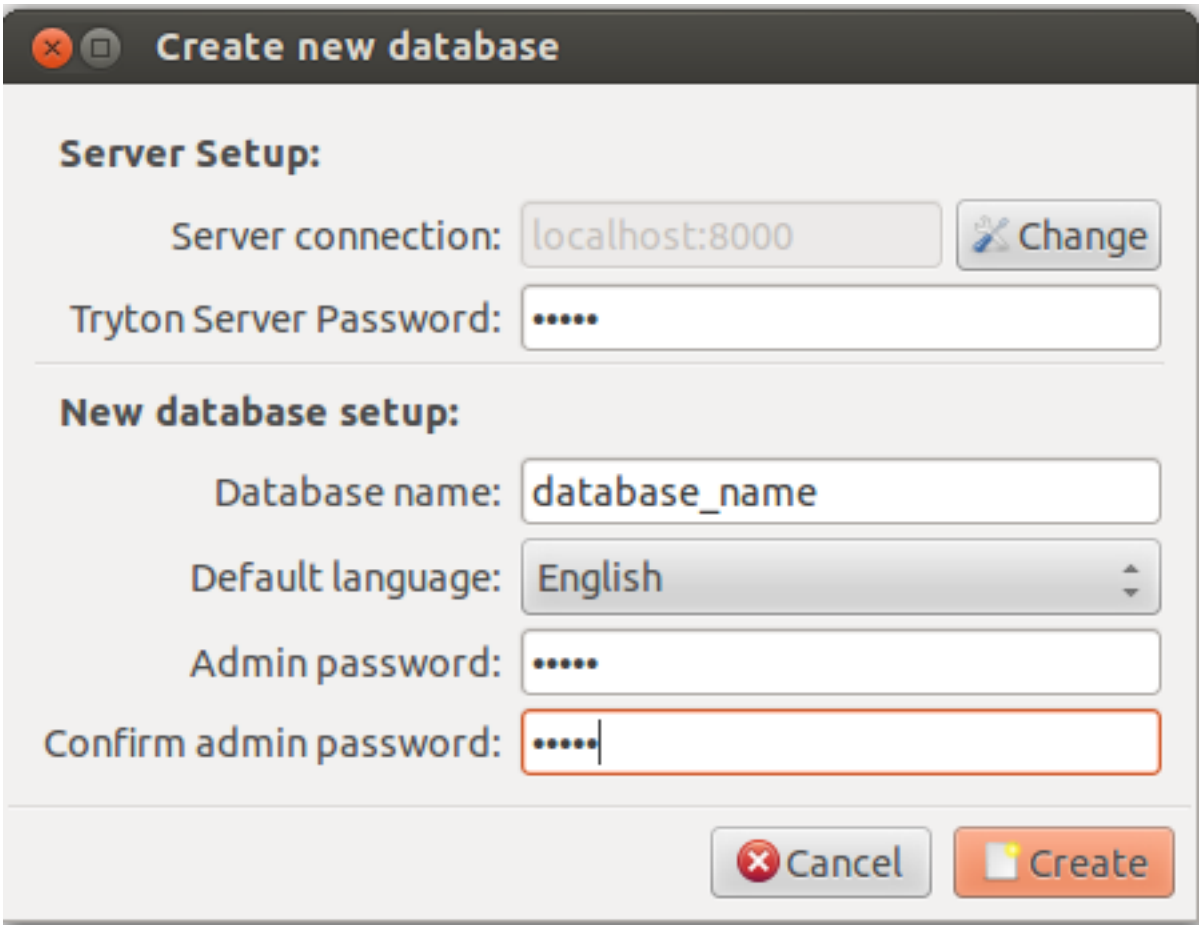
A minimal application

A minimal Nereid application first requries a Tryton database with the Nereid module installed. If you already have a database with Nereid installed head over to *creating website*.

Setting up a database

To create a new Tryton database, you will need to fill out the information as on the screenshot:

- Server connection : localhost:8000
- Tryton Server Password: admin
- Database name : database_name
- Admin password : admin



This is how you can create a new database. Now to login your ERP using the Tryton client, you need the following information:

- Host : localhost:8000
- Database : database_name
- User name: 'admin' or Ask your administrator for this information.
- Password : 'admin' or Ask your administrator for this information.

Creating a new website

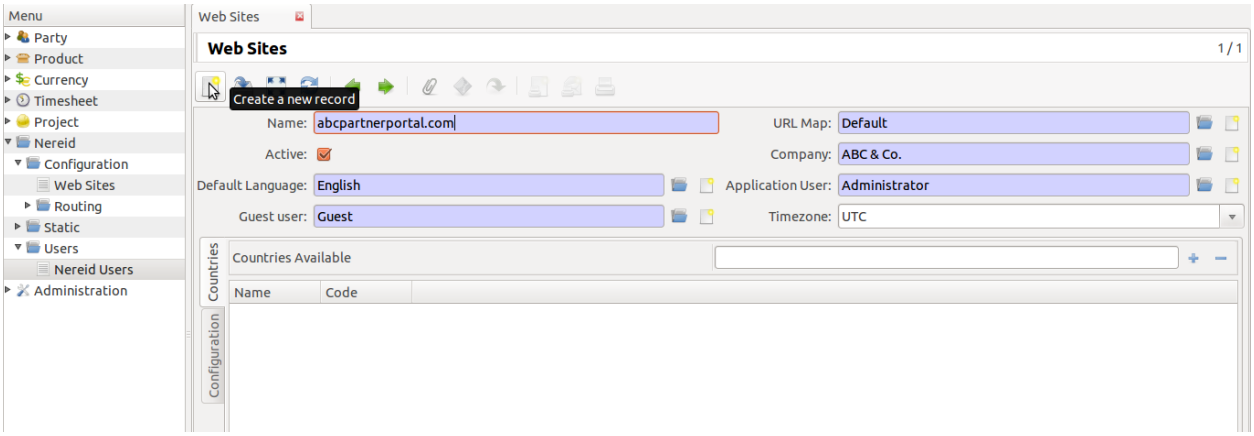
Once the nereid module is installed in a Tryton database, open the *Websites* menu under *Nereid/Configuration*, and create a new website with the following settings.

Field	Value
Name	abcpartnerportal.com
URL Map	Choose *Default*
Company	Choose your Company
Default Language	English
Guest User	Create a new Nereid User
App User	Create or choose a User

The default language is the language your website is displayed in. When a user visits the root of the website (say example.com), the user will be redirected to abcpartnerportal.com/default_language/

Example: If English US is selected as Default Language, then the user will be redirected to `abcpartnerportal.com/en_US/`

This is the tryton user with which the application will run. Ensure that the user you choose has the sufficient permissions (through groups) to access and update tryton models related to project management.



When the web site is created. It is recommended to create a new Nereid User. Here in above screenshot a new nereid user as a guest is created. But for giving privileges to the project, you need to create other nereid users also, they can be employee of your company, the clients, the stakeholders, etc.

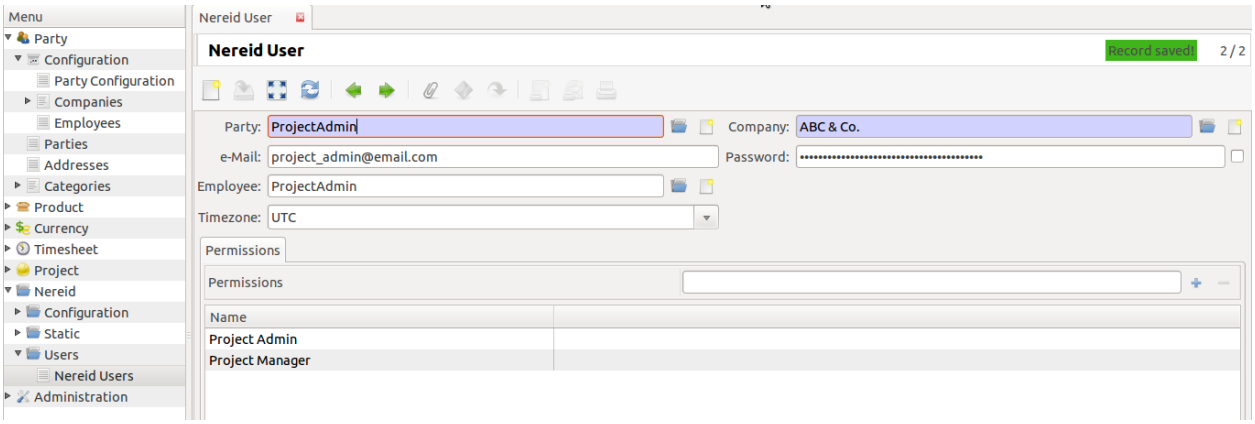
Refer to the `nereid.trytond_nereid.website.WebSite` for details on what each of the fields mean.

Tip: Since version 2.0.0.3 the name of the website is used by the WSGI dispatcher to identify the website that needs to be served. When you test the site locally, it is not usually possible to mimic your production url. This can be overcome by using a simple WSGI middleware which overwrite HTTP_HOST in the environ.

Admin Users

Project Admin / Manager

After creating website as mentioned in *creating website*, create a new admin user by adding project admin or project manager permission as shown below:

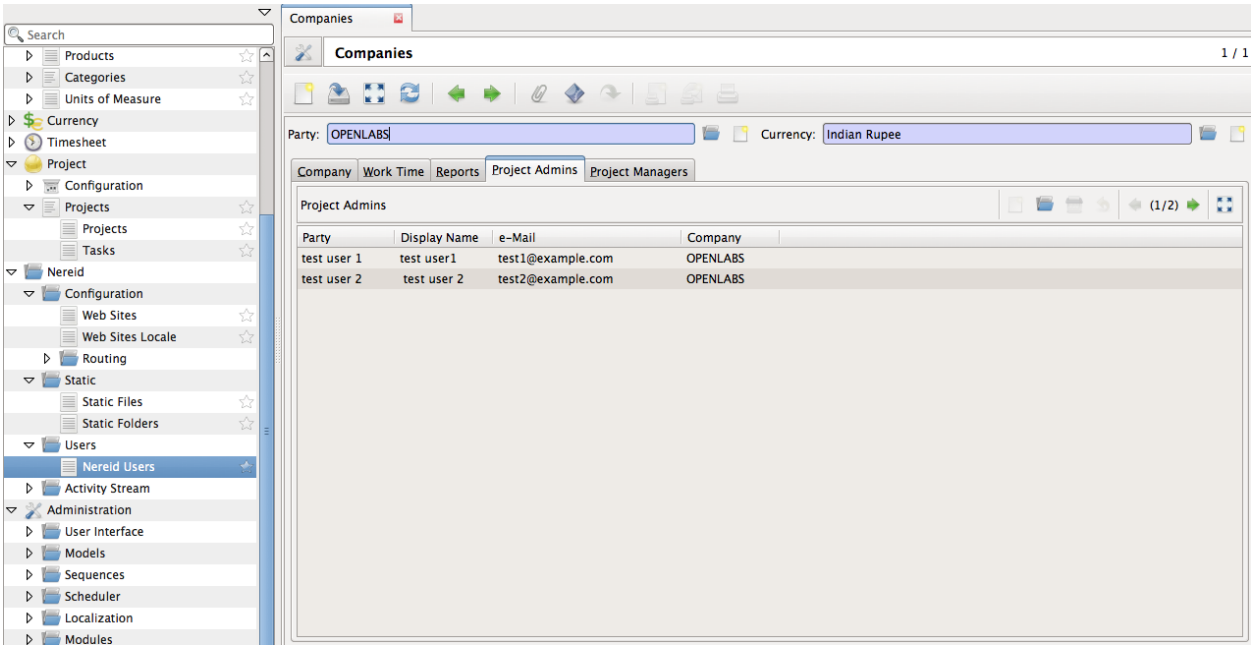


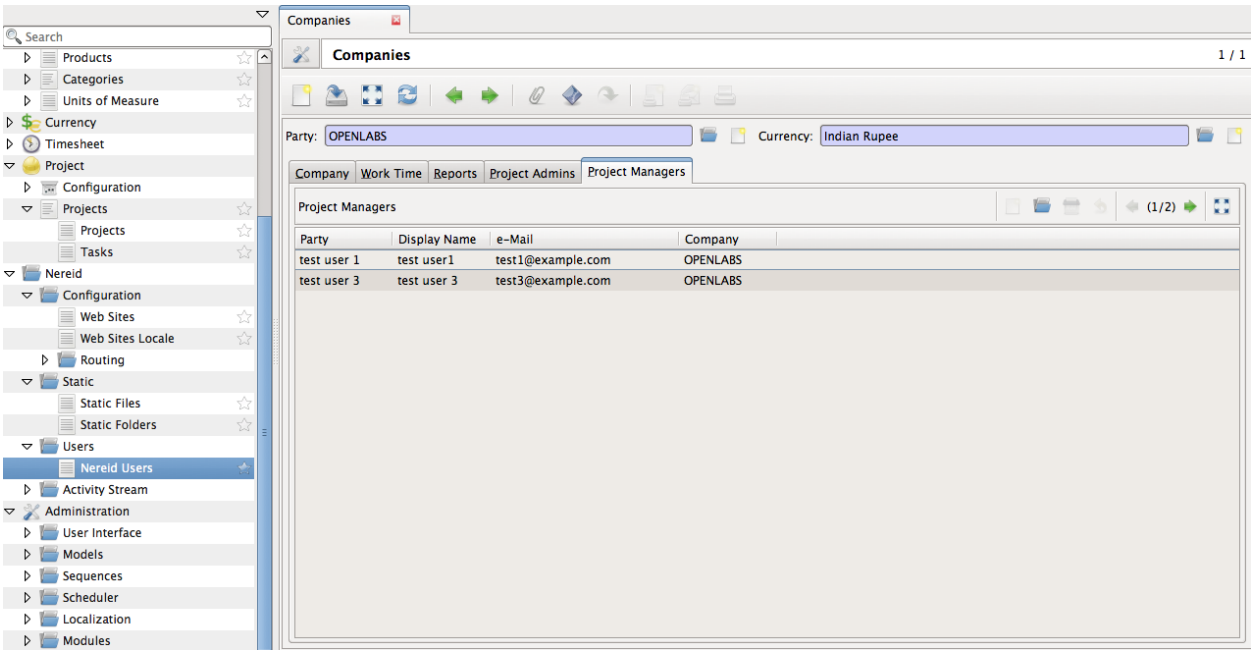
Project Admin has complete access to entire project management system.

Though project manager is limited just to:

- Global Timesheet
- Performance Graph
- Tasks By Employee

All the project admins / managers of company can be seen on company's screen using `Project Admins` or `Project Managers` tab.

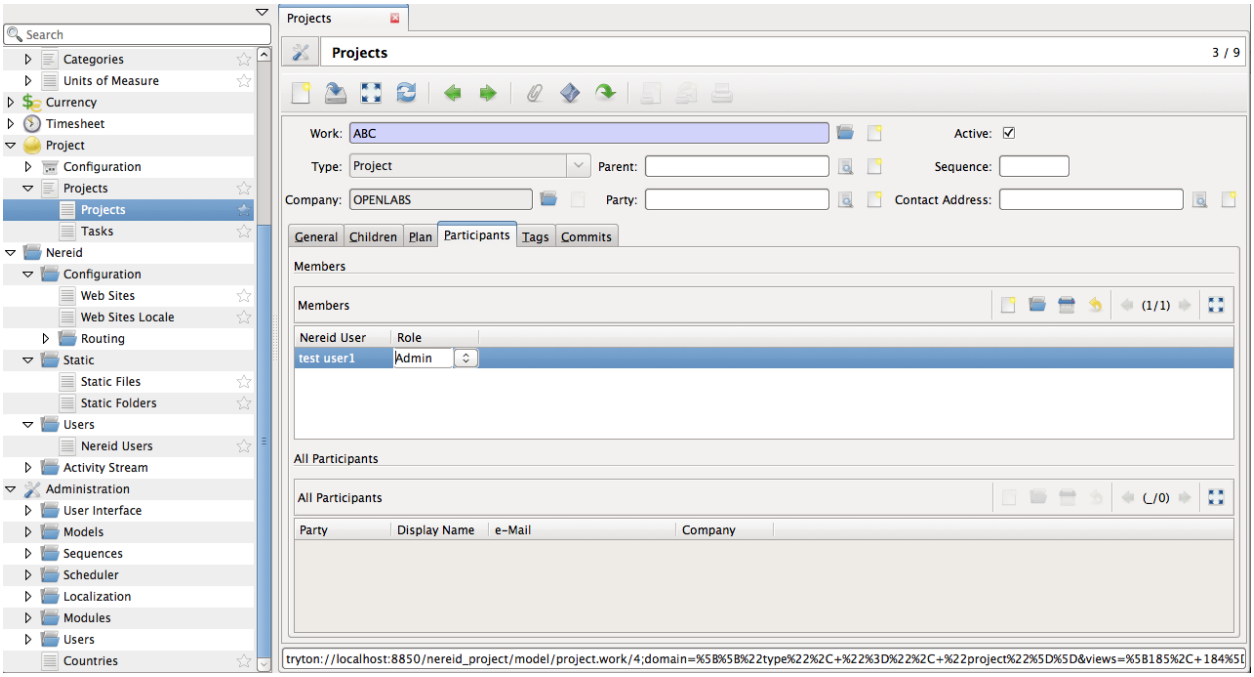




Admin Member

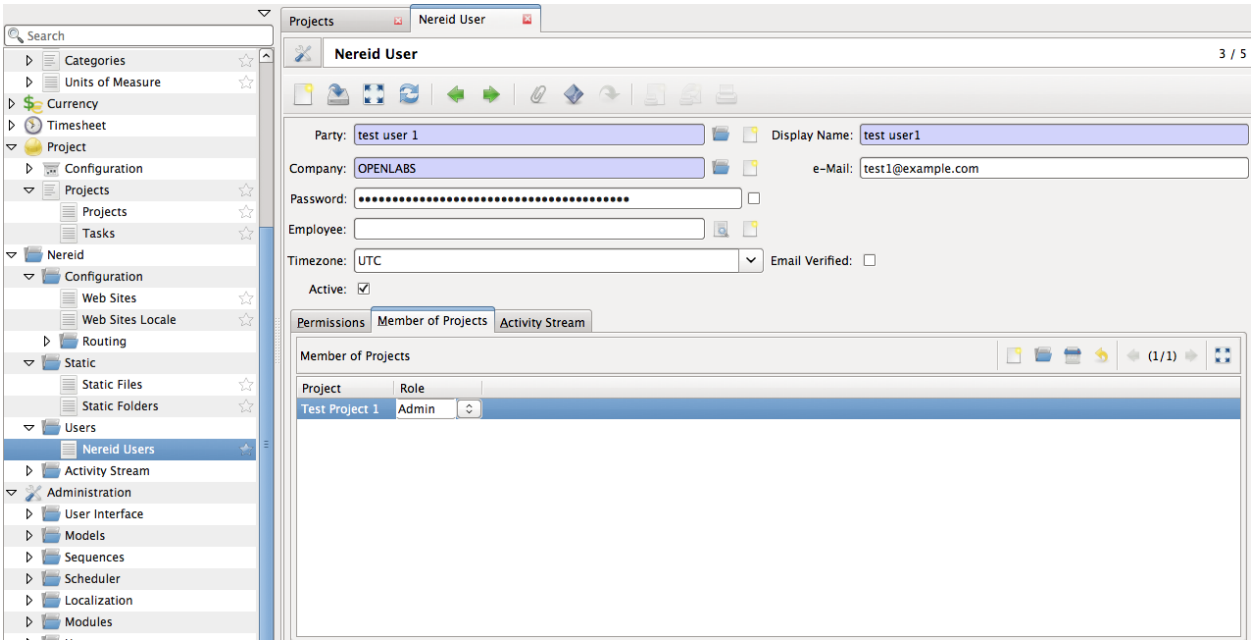
Admin member is project specific nereid user with role as **admin**. This admin member is allowed to do anything but only inside the entire project where he is added as an admin member. There can be multiple admin members of a project.

To add admin member of the project, open the project and add members using `Participants` tab as shown below.



Alternatively, projects can be added with admin rights to nereid user.

To add projects with admin rights, open nereid user and add projects using `Member Of Projects` tab as shown below:



Launching the application and template

Once the website is created, a python script which loads nereid and runs the application needs to be written. This script is used to load Nereid, configure your application settings and also serves as an APP_MODULE if you plan to use WSGI HTTP servers like Gunicorn

Note: DATABASE_NAME has to be changed in `application.py`. Mention the database name you have created while setting the database in tryton client, and also the site name which you mentioned while creating the website.

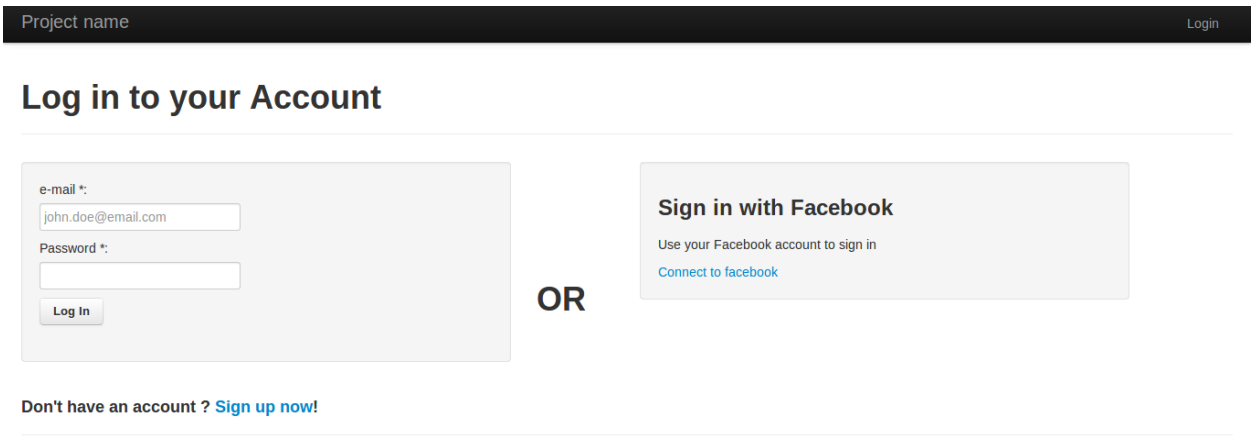
```
#!/usr/bin/env python
from nereid import Nereid

CONFIG = dict(

    # The name of database
    DATABASE_NAME = 'database_name',

    # Static file root. The root location of the static files. The static/ will
    # point to this location. It is recommended to use the web server to serve
    # static content
    STATIC_FILEROOT = 'static/',

    # Tryton Config file path
    TRYTON_CONFIG = '../etc/trytond.conf',

    # If the application is to be configured in the debug mode
    DEBUG = False,

    # Load the template from FileSystem in the path below instead of the
    # default Tryton loader where templates are loaded from Database
    TEMPLATE_LOADER_CLASS = 'nereid.templating.FileSystemLoader',
    TEMPLATE_SEARCH_PATH = '.',
)

# Create a new application
app = Nereid()

# Update the configuration with the above config values
app.config.update(CONFIG)

# Initialise the app, connect to cache and backend
app.initialise()


class NereidHostChangeMiddleware(object):
    """
    A middleware which alters the HTTP_HOST so that you can test
    the site locally. This middleware replaces the HTTP_HOST with
    the value you prove to the :attr: site

    :param app: The application for which the middleware needs to work
    :param site: The value which should replace HTTP_HOST WSGI Environ
    """
    def __init__(self, app, site):
        self.app = app
        self.site = site
```

```
    def __call__(self, environ, start_response):
        environ['HTTP_HOST'] = self.site
        return self.app(environ, start_response)


if __name__ == '__main__':
    # The name of the website
    site = 'abcpartnerportal.com'

    app.wsgi_app = NereidHostChangeMiddleware(app.wsgi_app, site)
    app.debug = True
    app.static_folder = '%s/static' % site
    app.run('0.0.0.0')
```

You can now test run the application

```
$ python application.py
```

The above command launches a single threaded HTTP Server for debugging purposes which listens to the port 5000. Point your browser to localhost:5000



Now the installation is successful. Refer *Nereid Project Tutorial*.

CHAPTER 4

Nereid Project Tutorial

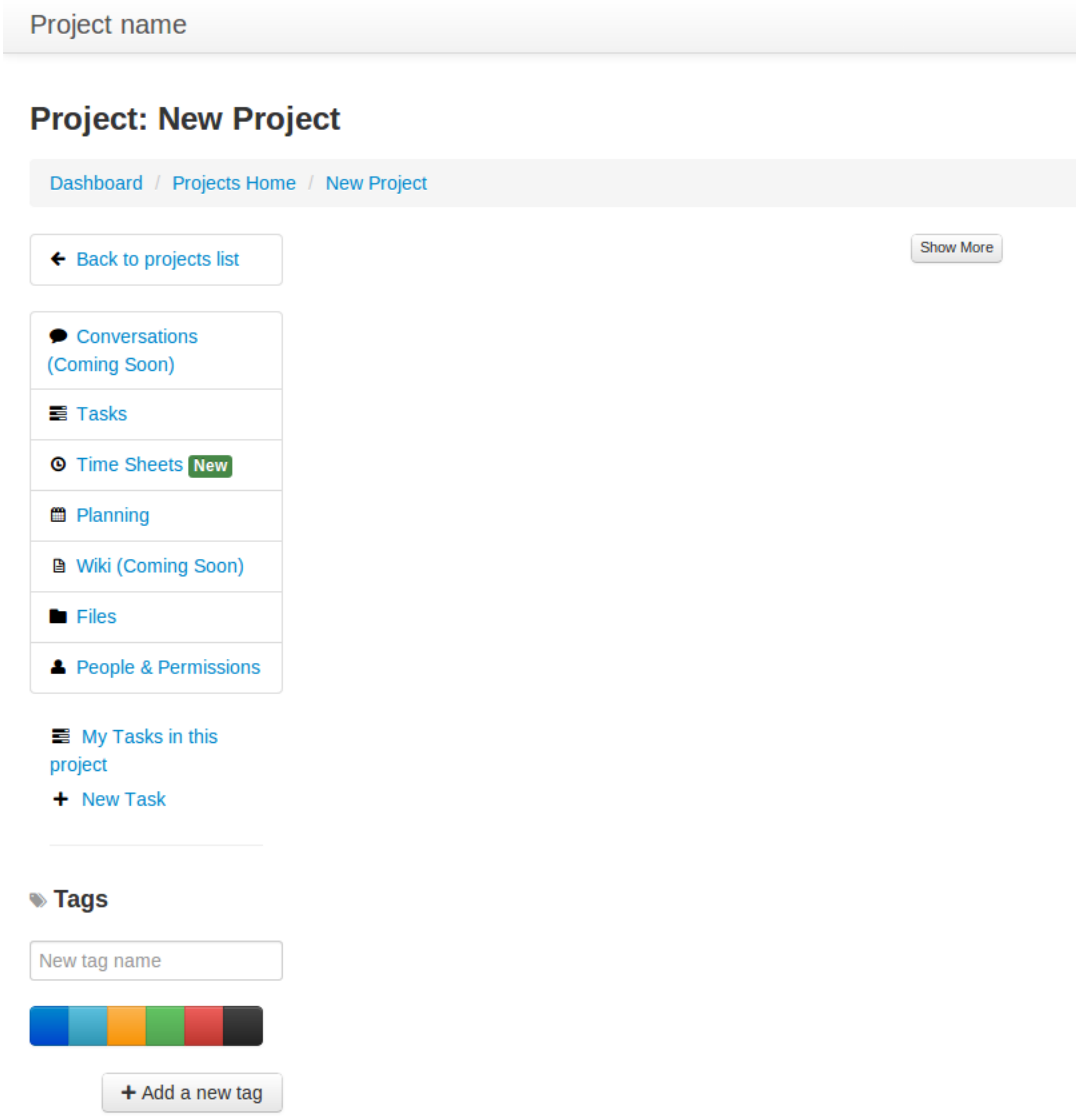
This tutorial gives an overview into how nereid project is organized and how it works with the Tryton project module. Familiarity with the tryton project module is not assumed, but could make the project easier to understand. Follow *Getting Started* before starting this tutorial.

Creating Your First Project

For getting started you need to have a project and team members working on it. So let's get started with creating a project.

When logged in as a project admin, see *Admin Users*, the admin can create a new project, invite new or existing users to the project and change the setting related to the project. Now when project is created, all the feature regarding that project is visible.

- Click the New Project button (found at the top right of every Project Management Page)
- A modal window will then slide into view, where you will find fields for entering the title of the project. Once you are done, click Save.
- You will now be taken to the Project overview screen, you have just created your first project!



See the screen-shot shown below:

You can invite your team members to collaborate and work together on a project. The invites can be your team member and also your client for whom you have created this project.

To invite a use go to **People and Permissions** and enter the email address of the person you wanted to invite. An invitation email will be sent to the user. The user can now check the project, create tasks, mark time etc.

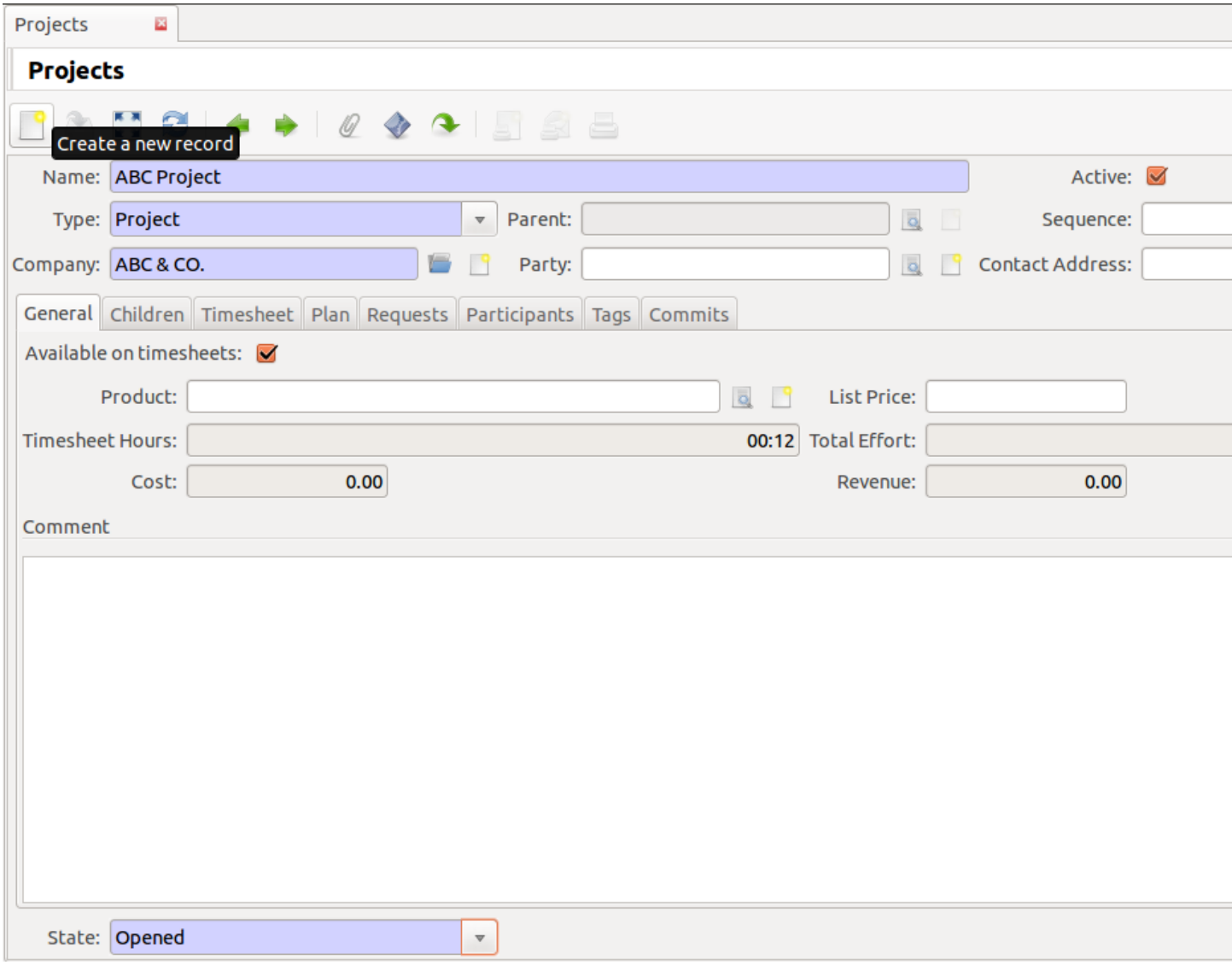
Note: Only the project admin <*Admin Users*> can create the projects on Project Management System.

Creating project on Tryton client

Alternatively projects could be created from your preferred Tryton client, go to Projects from the left panel and follow the steps below:

1. Click the Create New button (found at the top left of every form view in Tryton)

2. Where you will find fields for entering the title of the project, the type (whether project or a task), Company, participants or assignee (if any), State of the project(opened or done).
3. Once you are done, click on Save button found at top left of the form view, next to New button.

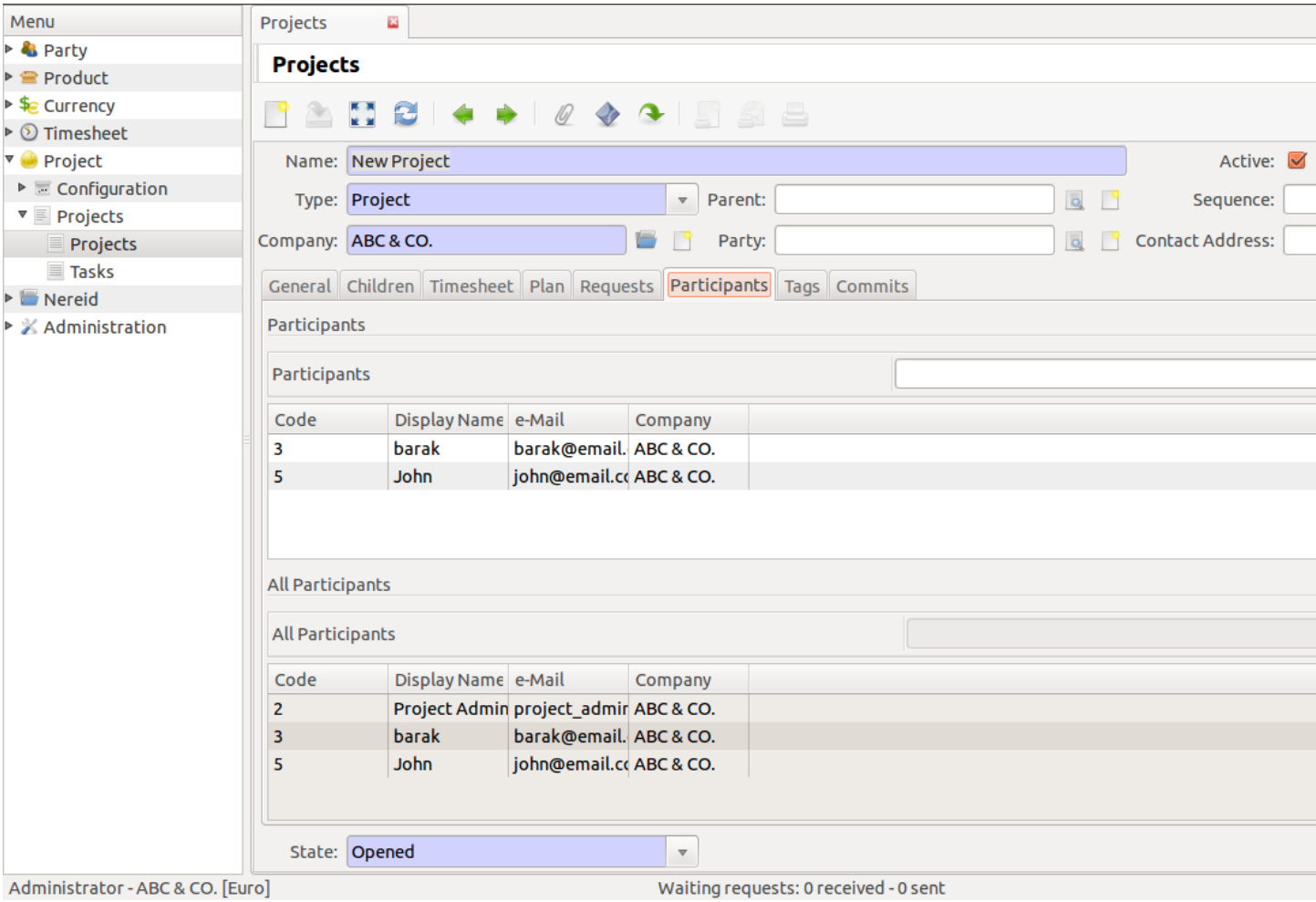


If the project admin adds the project, or performs any changes through Tryton client, it also gets updated to web-interface, and vice-versa.

Adding Participants to Project via Tryton Client

Through project permissions you can control your employees access. The participants to the project can only be added by the project admin through Tryton client as shown below in the screenshot, participants are then allowed to do list of following things - can view project, contributes to the project, create tasks, updates the progress made so far, change the state of the task, assign the task to other participant of that project, mark their time, etc.

This below figure shows how to add the project participants on Tryton client:



Changing State:

The project can be in open or done state. Status of the project can be changed by a project admin. To close a project simply from the admin page.

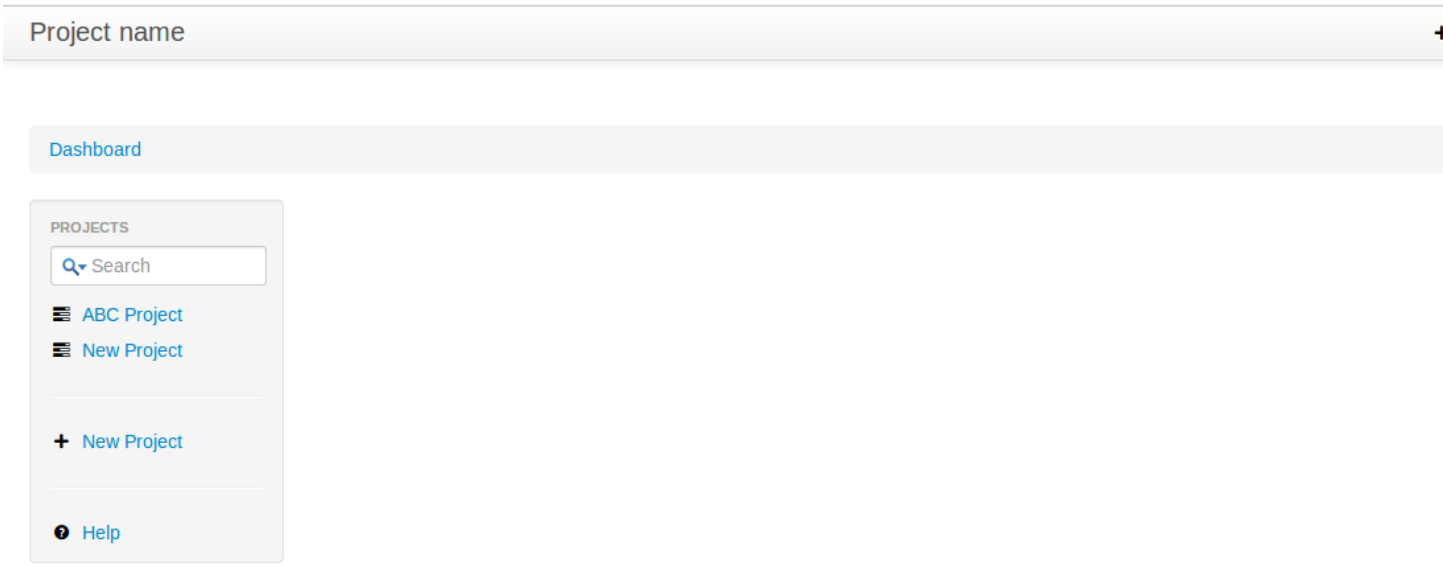
Note: State can be changed only by project admin

The Project Management Screen

The screenshot shown above is the main dashboard of the system. You can open a project and you will start working on it. You can see there are some side menus available on the left hand side of the screen. You can go to the *Task* menu and start creating tickets for the project.

So at the very top we have the project title, next we have the following features:

- **Dashboard:** Where a list of of all projects are shown depending upon the permissions granted to that nereid user. For more information, see *dashboard*.



- **Tasks:** Every single project can have multiple tasks assigned to it. Participant of the project can create tasks depending upon the requirements to achieve the goal of the project as soon as possible. The tasks are displayed according to the states. This view is called Kanban View. See *tasks*.
- **Time Sheets:** The timesheet module allows to track the time spent by employees on various tasks. This module also comes with several reports that show the time spent by employees. For more refer *timesheet*.
- **Planning:** This uses the feature of gantt charts and it allows all the team members to check the planned task according to its estimated time. The Nereid Project has a wonderful interface that is completely intuitive. Refer *planning*.
- **Files:** Attaching a file is very easy in the Nereid Project. You can attach as many as files you want. You can also see the preview of the images on the task itself. Learn more about it in *files*.
- **People and Permissions:** The project admin or admin member of the project

can invite and remove users from here. See *invitation*.

- **Tags :** Creating a tag is only possible by project admin or admin member of the project. The admin can select a colour for tags and create tags. User can add tags along with the task. You can click the tags from the task view and see all the tasks tagged with it. For example, tag several tasks as *Priority* now you can just click the tag from the Kanban view and you can see all the task under that tag.
- **Estimated Effort** : You can also estimate a task. You just need to put the time needed to do one task. Learn more about it *estimated effort*.

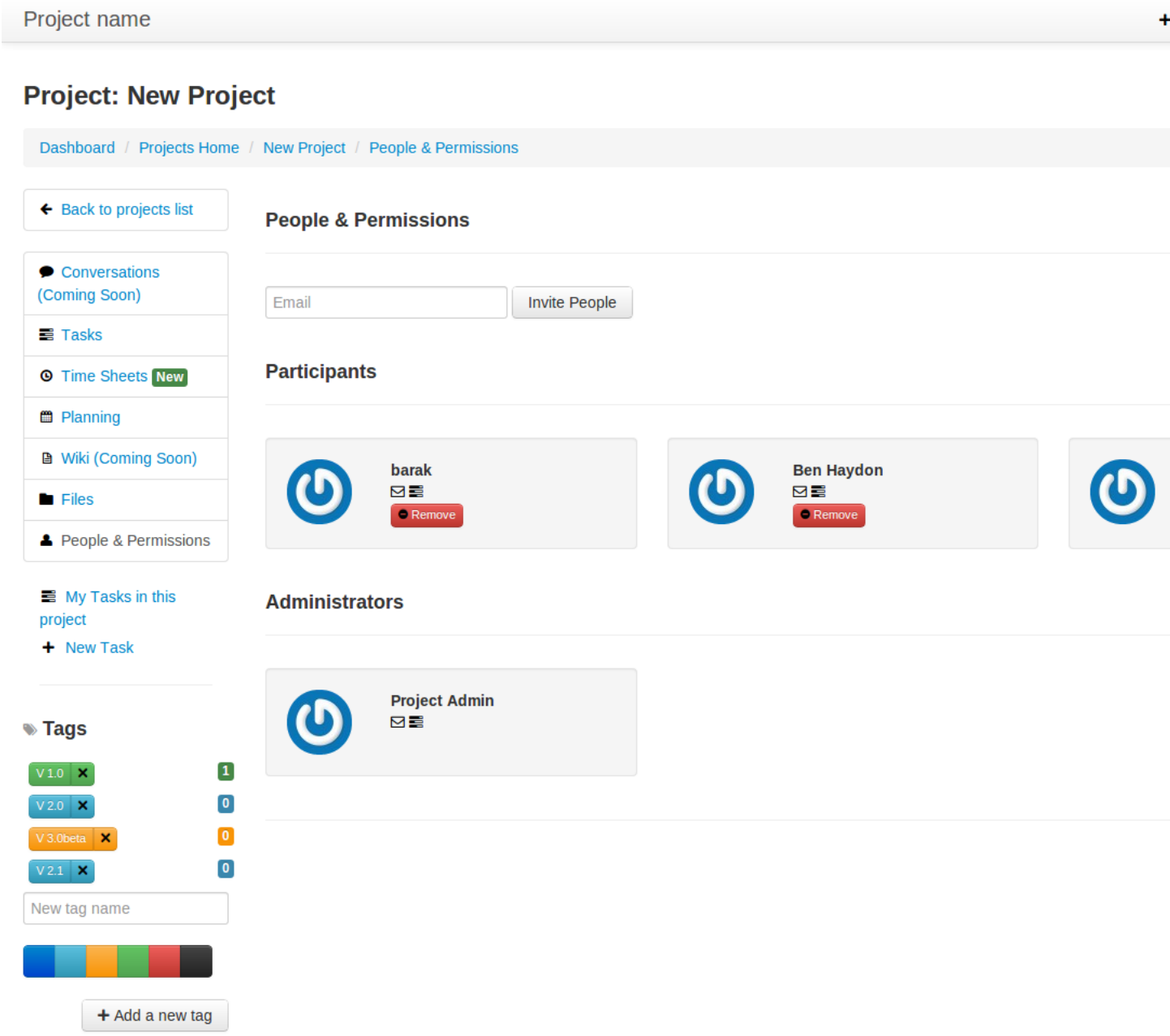
People and Permission

Nereid project makes it very easy collaborate and work together on a project. You can invite as many as user you want to your project. Only the project admin or admin member of the project can send the invitations.

To invite a user just go to the people and permission tab on the project view and add the email address of the user you wanted to invite. That user can accept the invitation and start collaborating to the project.

This user can be a developer, designer, customer/client, vendor, etc. Everybody can work together, and create tickets and assign it to each other. The nereid project makes it very easy to get updated about the current project. Where

people from different zone can collaborate together.



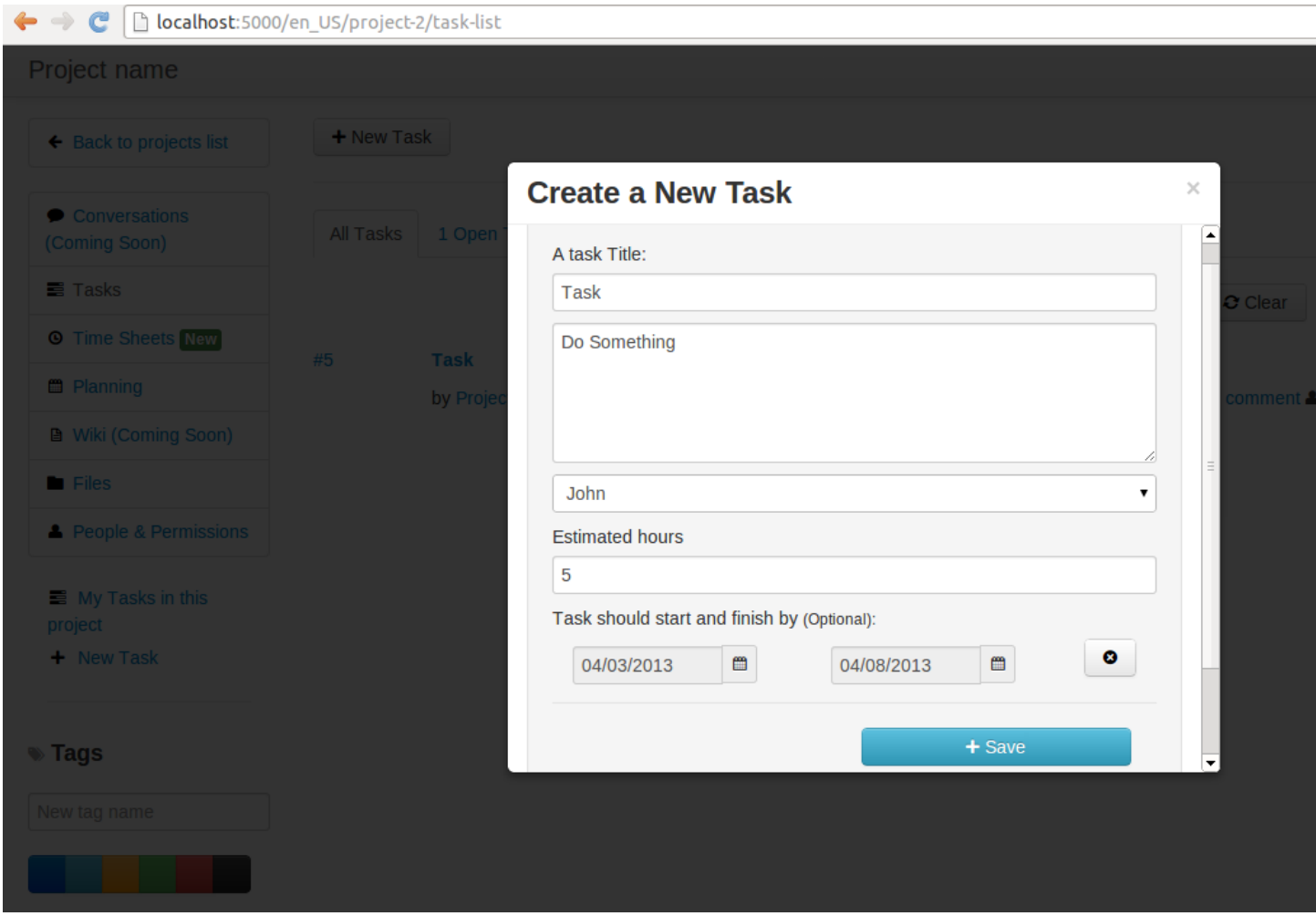
Creating Task

You can click the **New Task** button on the top right section and create a task. You can assign the task to another user of the same project, out the start date and end date of the task, put estimation on the task and save the task.

Once the task is created, it automatically goes to the backlog state. You can update the task and keep assigning it to other members. Task is having following features:

- You can update the task and assign it to another project member.

- You can also notify another member on the task by clicking the notify button along with the comment box.
- You can attach files on the task. Attaching files can be done by clicking the attach button next to *Files*. You can also directly drag and drop the file into the comment section.
- You can put the time you are taking to work on the task.
- You can change the state of the task from Backlog to, planning, in progress and Done.
- You can also watch someones task, by clicking the watch icon next to the task heading.
- All the members of the project will get email notification on their for every activity happening on the tasks they are watching or participating.



Note: Any nereid user having access to the project can create task, update the task, putt comments, upload files into it, and assign it to other nereid user of that project. See *update*.

Basic RST primer

This section is a brief introduction to reStructuredText (reST) concepts and syntax, reST was designed to be a simple, unobtrusive markup language. For more refer RST primer

Lists

Just place an asterisk at the start of a paragraph and indent properly. The same goes for numbered lists; they can also be autonumbered using a # sign:

```
* This is a bulleted list.
* It has two items, the second
item uses two lines.

 1. This is a numbered list.
 2. It has two items too.

 #. This is a numbered list.
 #. It has two items too.
```

Paragraph

As in Python, indentation is significant in reST, so all lines of the same paragraph must be left-aligned to the same level of indentation.

Inline markup

The standard reST inline markup is quite simple: use

- one asterisk: `*text*` for emphasis (italics),
- two asterisks: `**text**` for strong emphasis (boldface), and
- backquotes: ``` ``text`` ``` for code samples.

Code Highlighting

The highlighting language can be changed using the `highlight` directive, by default, this is `'python'` as the majority of files will have to highlight Python snippets used as follows:

```
.. highlight:: c
```

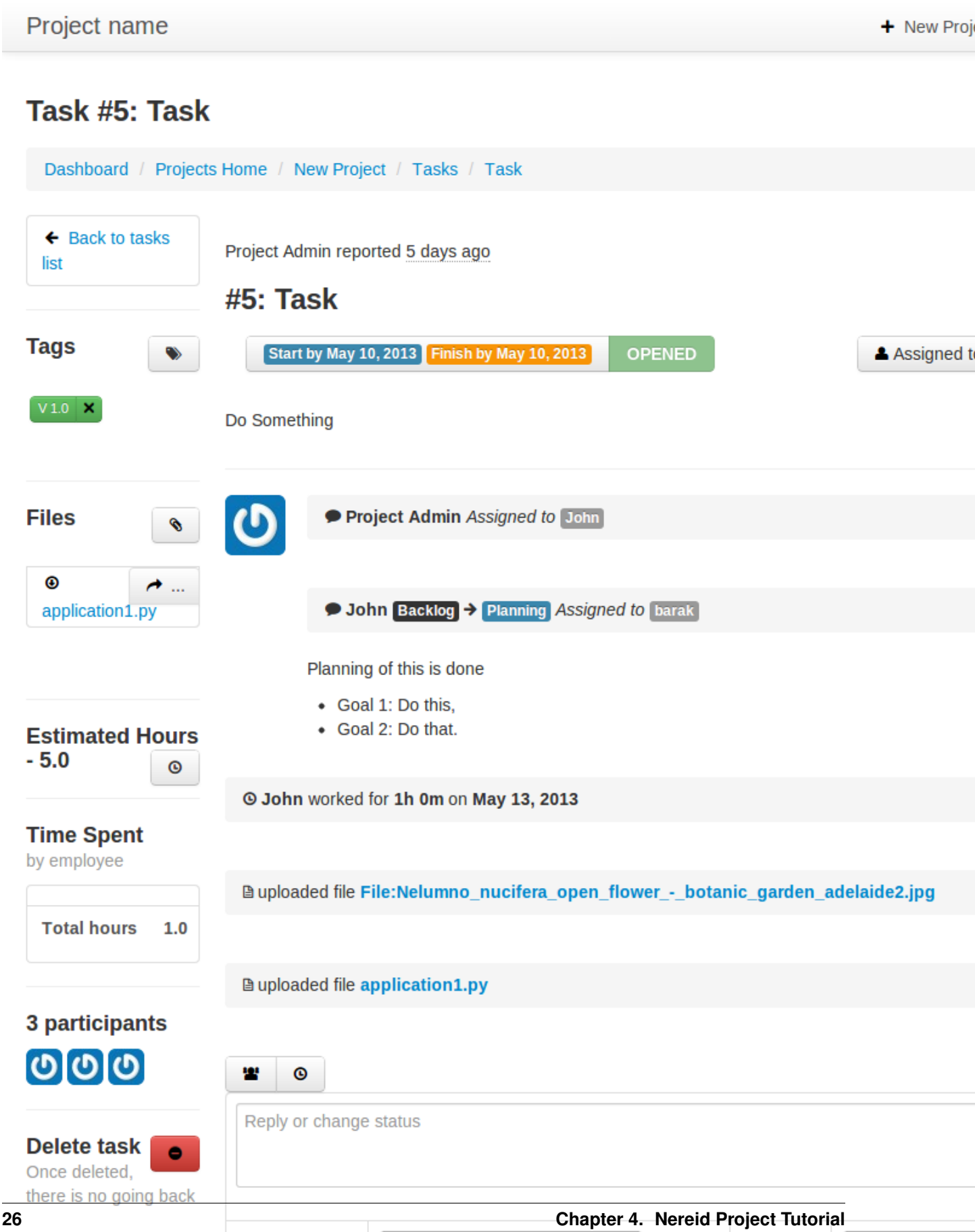
An example in python code highlighting:

```
.. code-block:: python

   def some_function():
       interesting = False
       print 'This is '
       print 'code highlighting'
       print '...'
```

Updating task

Task updates can be formatted using *reST primer* syntax for making comments or updates looks clear. For more reST(restructured Text)

Updates can be written to clarify progress made so far for the task, for changing the state of the task, for marking time i.e., the time spent by the employee on that task etc. While marking time user can also update the *state*

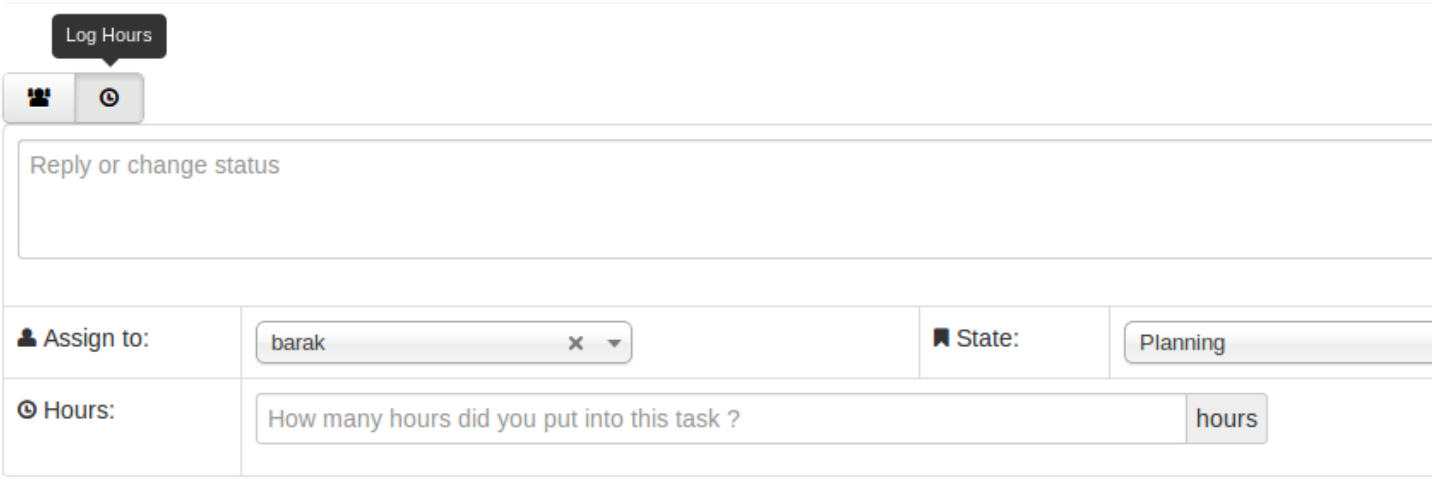

Project name
+ New Proj
Task #5: Task
Dashboard / Projects Home / New Project / Tasks / Task
Back to tasks list
Project Admin reported 5 days ago
#5: Task
Tags
Start by May 10, 2013
Finish by May 10, 2013
OPENED
Assigned t
V 1.0
Do Something
Files
application1.py
Project Admin Assigned to John
John Backlog → Planning Assigned to barak
Planning of this is done
Goal 1: Do this,
Goal 2: Do that.
Estimated Hours - 5.0
John worked for 1h 0m on May 13, 2013
Time Spent
by employee
Total hours 1.0
uploaded file File:Nelumno_nucifera_open_flower_-_botanic_garden_adelaide2.jpg
uploaded file application1.py
3 participants
Reply or change status
Delete task
Once deleted, there is no going back
Assign to:
barak
State:
Planning

Marking Time

Nereid Project enables the team to record their time directly on their tasks on every update. Each time the employee comments on a task, the time entered is updated along with it.

For marking time, see below:

Tip: User will need to understand how much time they are devoting to each task and mark time in hours. For marking time in minutes, convert those minutes to hours, like, for entering 6 minutes - mark '.1', for 30 minutes - mark '.5' and so on.

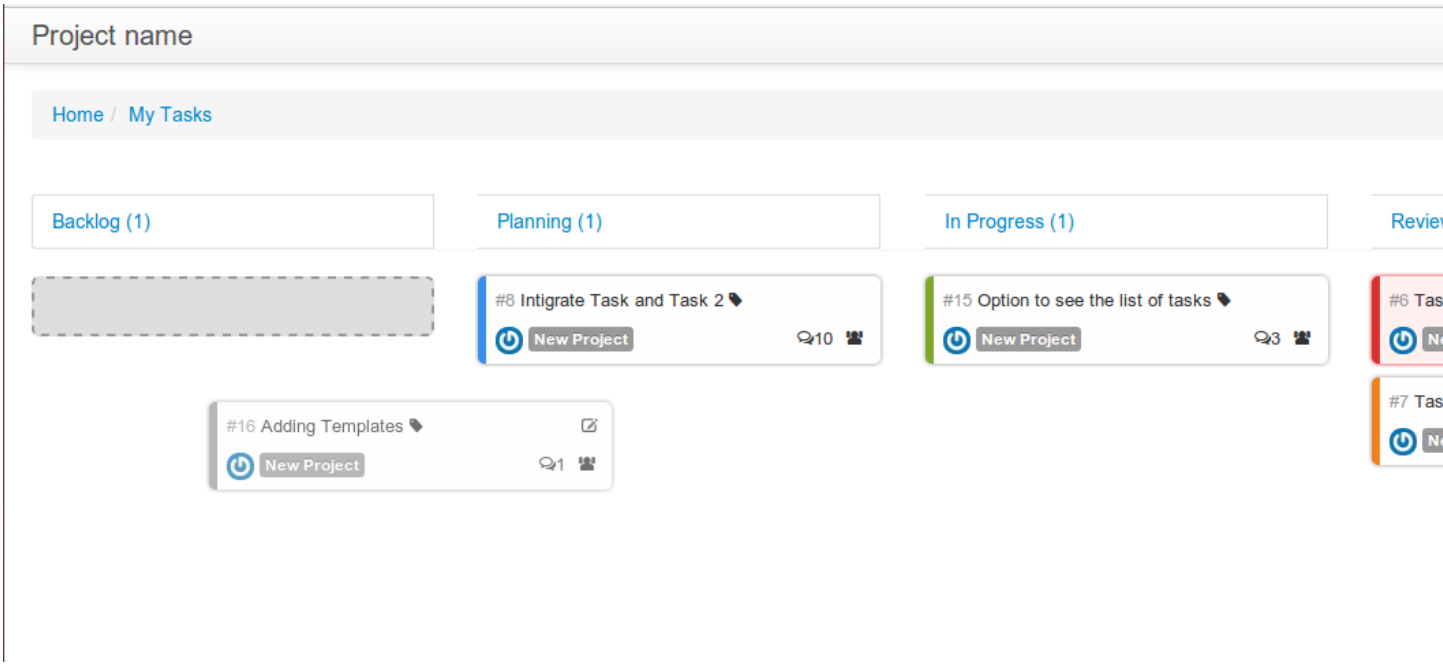


View my-tasks

Project participants can see their task list, and these lists easily help user to keep track of every assigned tasks on a project, quickly tells the *state*, and with *tag* (if associated to it)!

And, by the way...

Drag and Drop- To change the state of the task, just drag and drop task from one state to the necessary state.



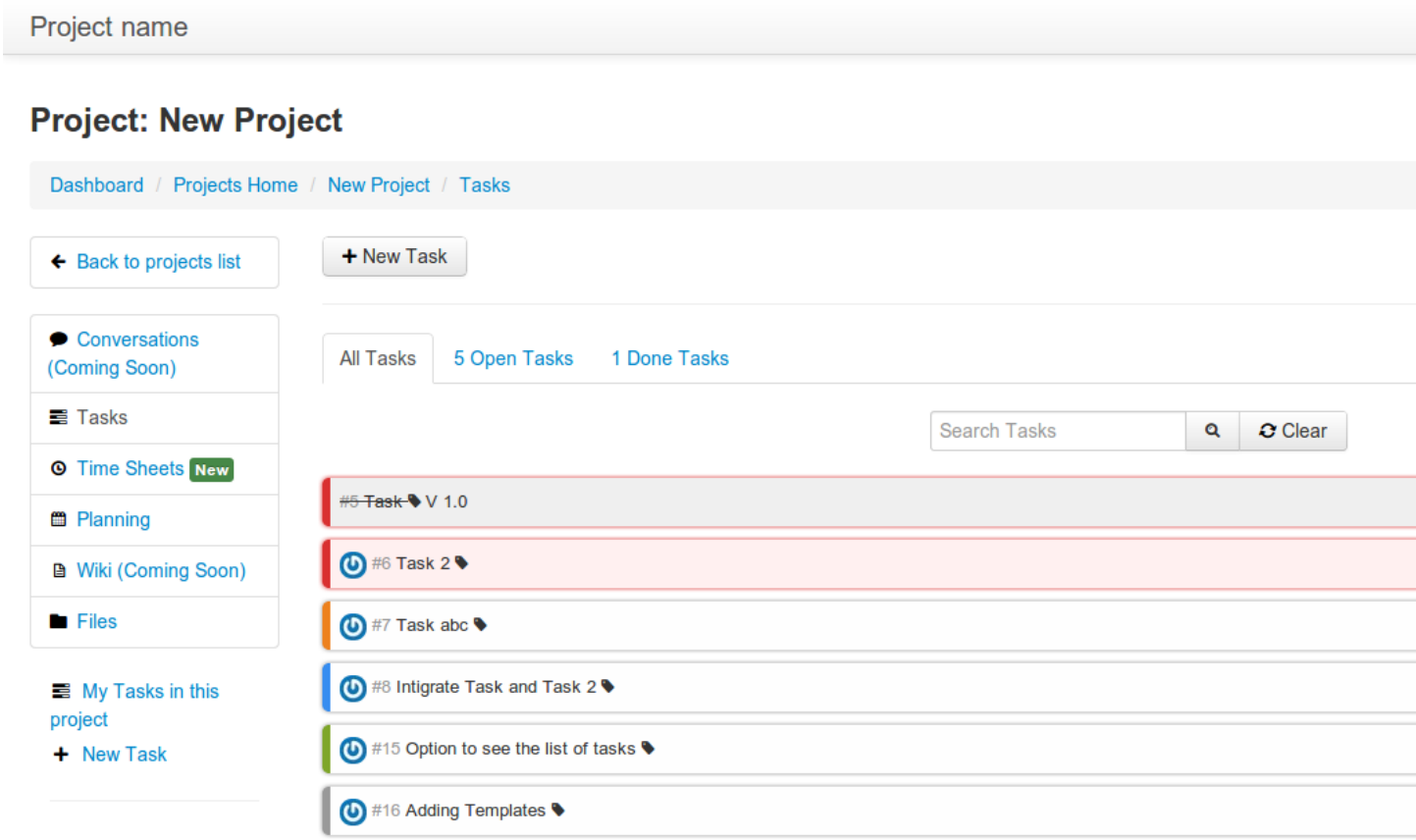
View all tasks

The participants can view all the tasks on a particular project. All the tasks is listed according to Kanban View. So it is easy to check all the tasks according to their states. Click Tasks from the side menu and see all the tasks according to their states. You can also search for a particular task.

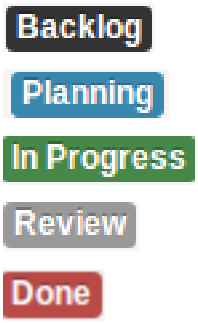
Features:

- Striped multi-colour tasks in Nereid Project - tasks with different colors signifies different *state*
- You can instantly search for a task through task id or name.
- The "All Tasks" tab shows all the open and closed tasks. So the history of the project is also maintained.

To see All Tasks, Open Tasks, Done Tasks just click on the `Tasks` Button shown on the left, for reference see below:



State of Task



Ideally all the user should keep the task updated to their respective states. It will increase the transparency amongst the team members and the customer involved in the project. All the states are explained below:

- **Backlog:** When you create a new task, by default it goes to the backlog state. You can either drag and drop the task to another state or update the state through the task view.
- **Planning:** If a task has been planned and the user know well, what needs to be done on that task, then it is kept on the planning state.
- **In Progress:** Once the user starts developing the task, he/she can drag and drop the task to "In Progress" state.

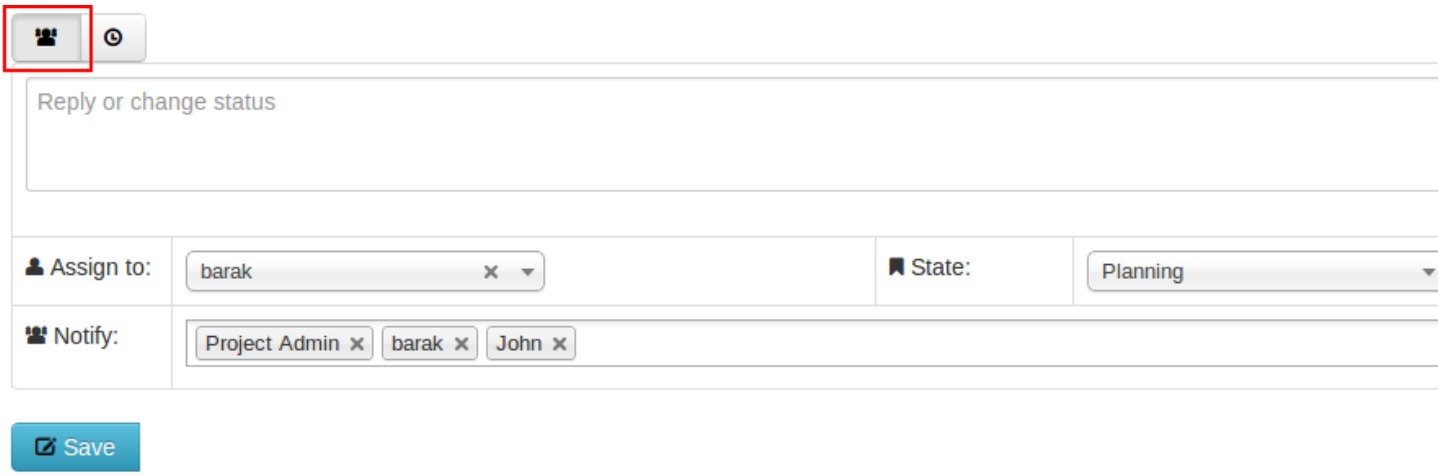
- **Review:** Now once the user is done with the task he/she can assign the task to the assignee for review. The review state can go through several iteration before it get accepted by the assignee.
- **Done:** If requirements meets the scope of the task, then the task can be marked as Done.

In their simplest, the tasks are categorized into the work stages:

- from Backlog –> Planning
- from Planning –> In Progress
- from In Progress –> Review/ QA
- from Review/QA –> Done

Notify another participant

The participants can notify each other on their respective tasks. While updating a task just click on `Notify People` button to add or remove participants from the task. Now whenever this task will be updated, all the participants will get notified through e-mail. See below, from where to add-remove participants for the current task:



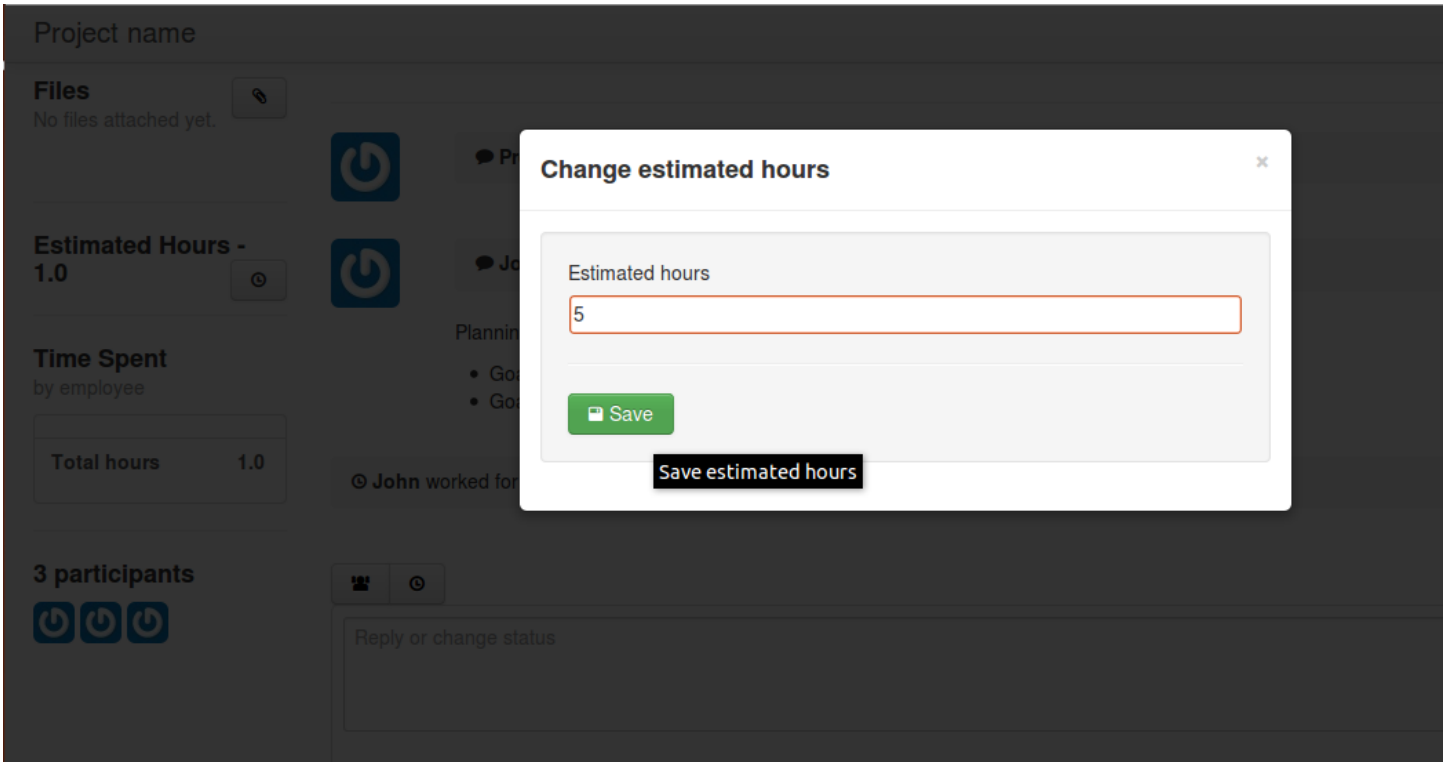
E-mail Notification

An integral feature of the Nereid Project is email notification. All the project participant receives an automated email notification from system.

Estimated Effort

This feature allow a user to estimate the efforts that is going to be used for a particular task. As there would be time consumption on each task. This creates a more routine environment for the team members allowing them to spend time on a planned way. So that every task has achievable schedule objectives.

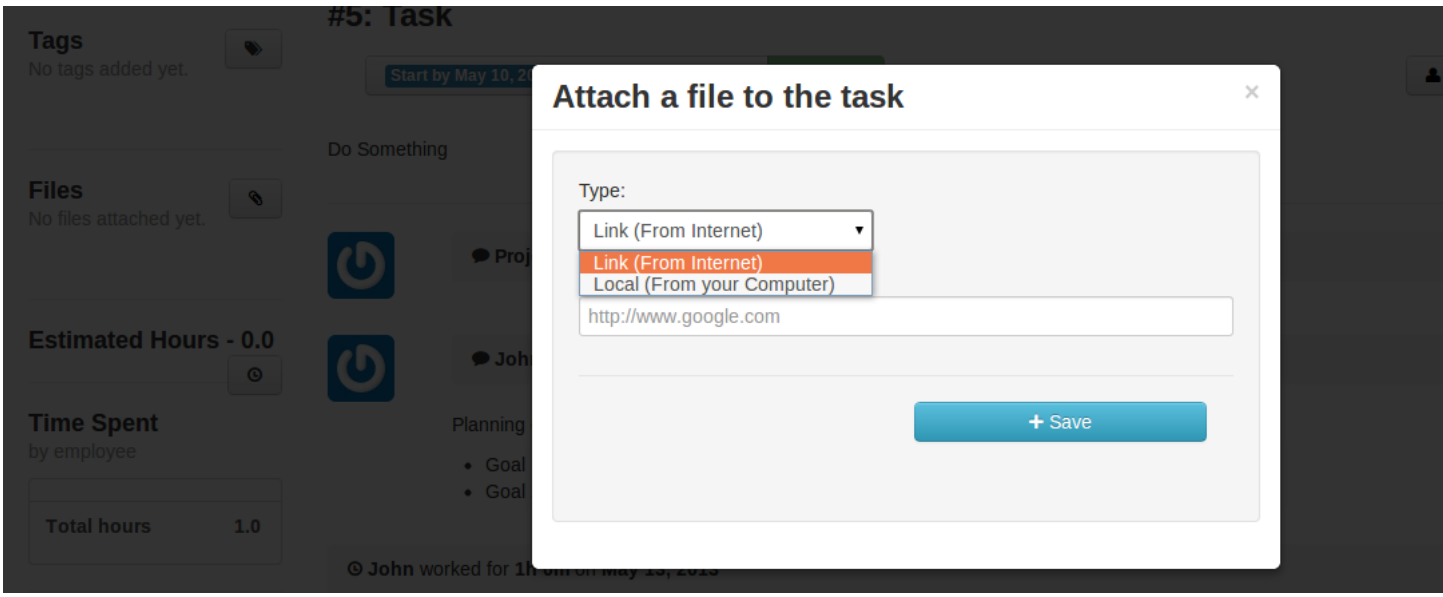
Tip: To enter the estimated time afterwards creating the task. Click the `Estimated Hours` button on the left side of the web-interface, a modal window will slide into view, where you can enter the time.



Attachment

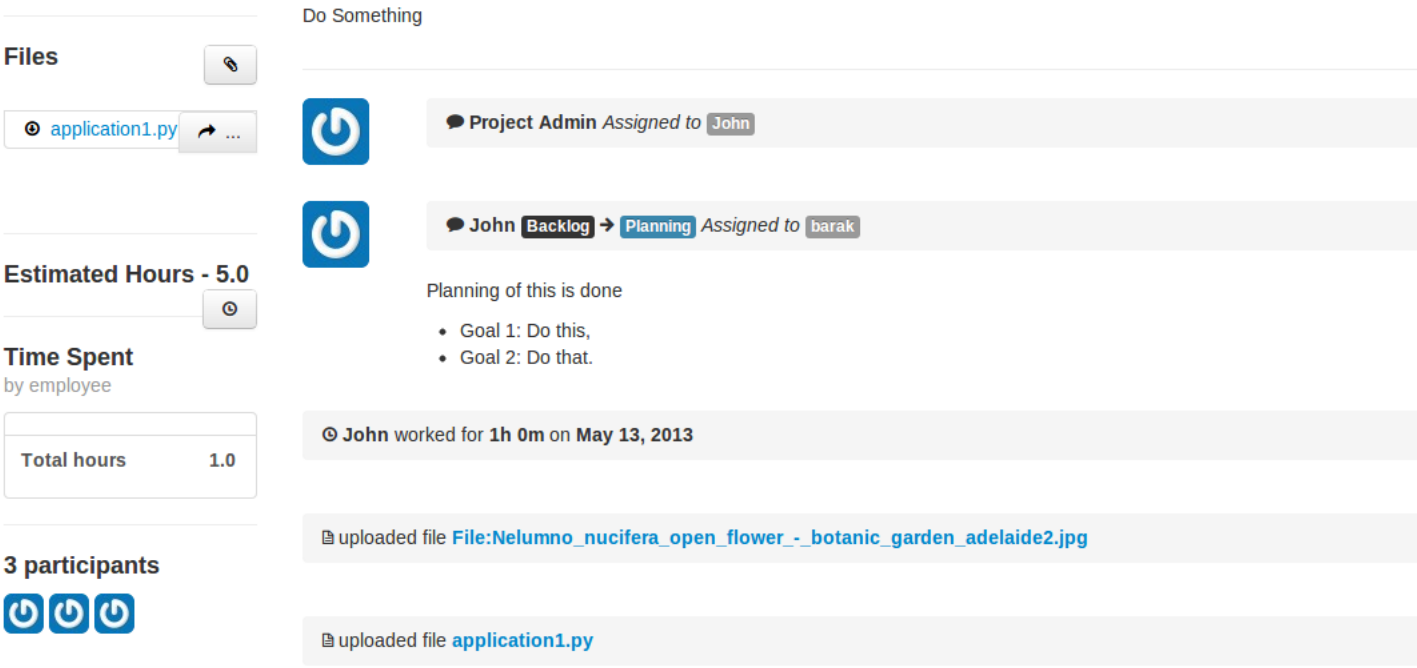
The user can attach files directly to tasks. There are two ways for attaching file:

- Drag and drop the file into the comment section,
- Upload the file from your local machine or from dropbox.

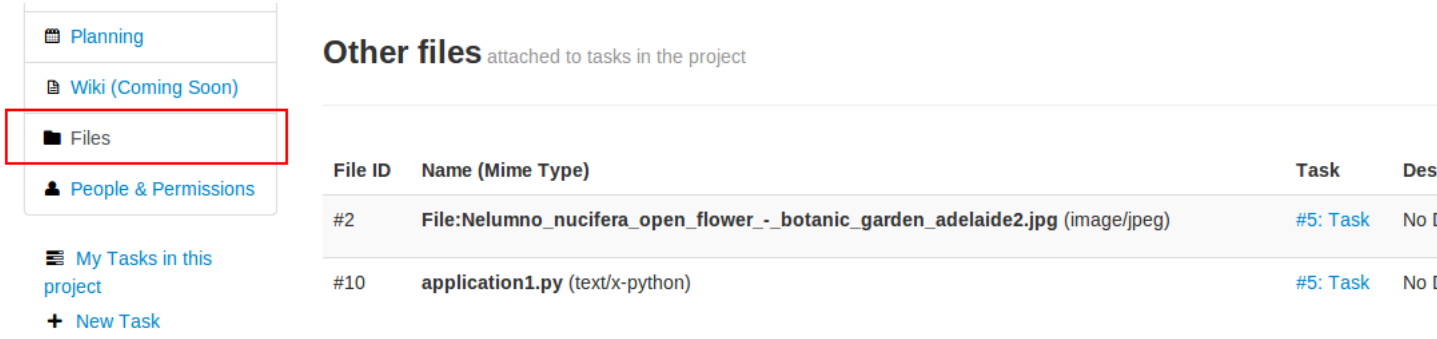


To upload attachments to Nereid Project, follow these steps:

- Open up the task to attach a file, click Files button on the left side for attaching files or link, a modal window slide into view and from the drop-down menu, select type to attach i.e., to attach a link from the internet, or file to upload.
- Select the file/link you'd like to attach. Your file will appear in your task as shown in figure below.



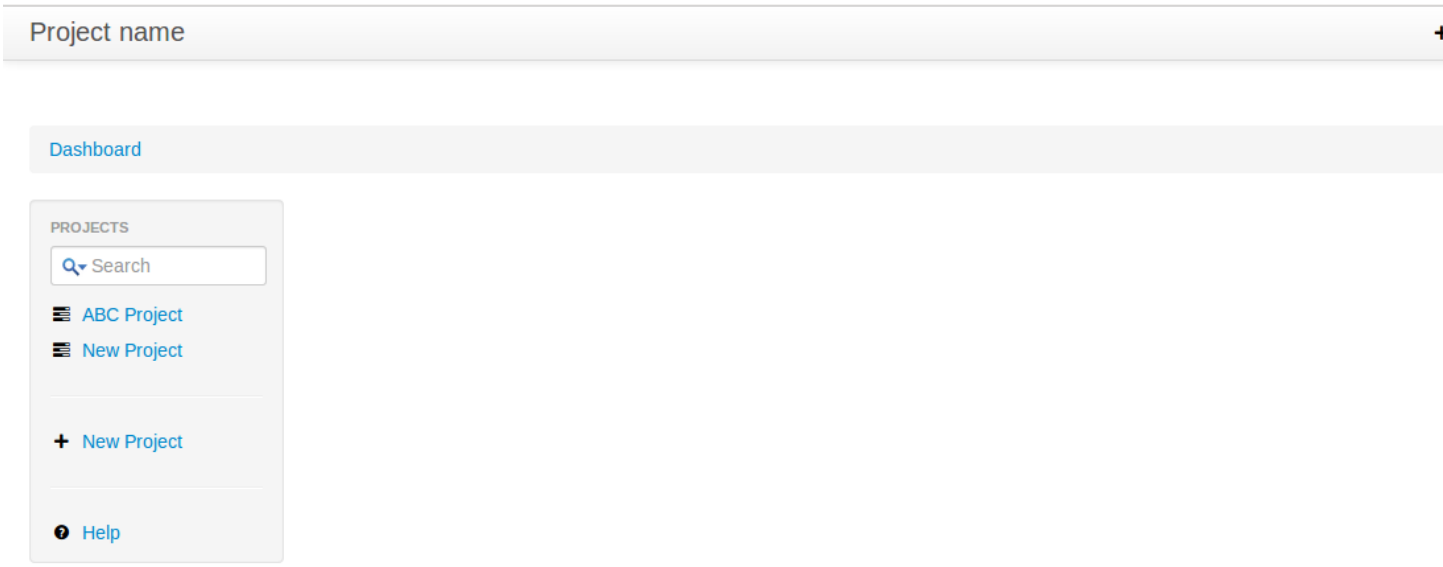
The Files button shows all files that have been attached through individual posted to the task. Files attached to the system are collected and displayed here in Files section, along with filename, the description along with it, and a link to the area where that file is being attached.The original file is included along with a link to download the file.



Dashboard

The project dashboard gives a summary of active projects. Nereid Project's Dashboard is a customized project information system containing list of projects, for tracking team progress toward completing an iteration.

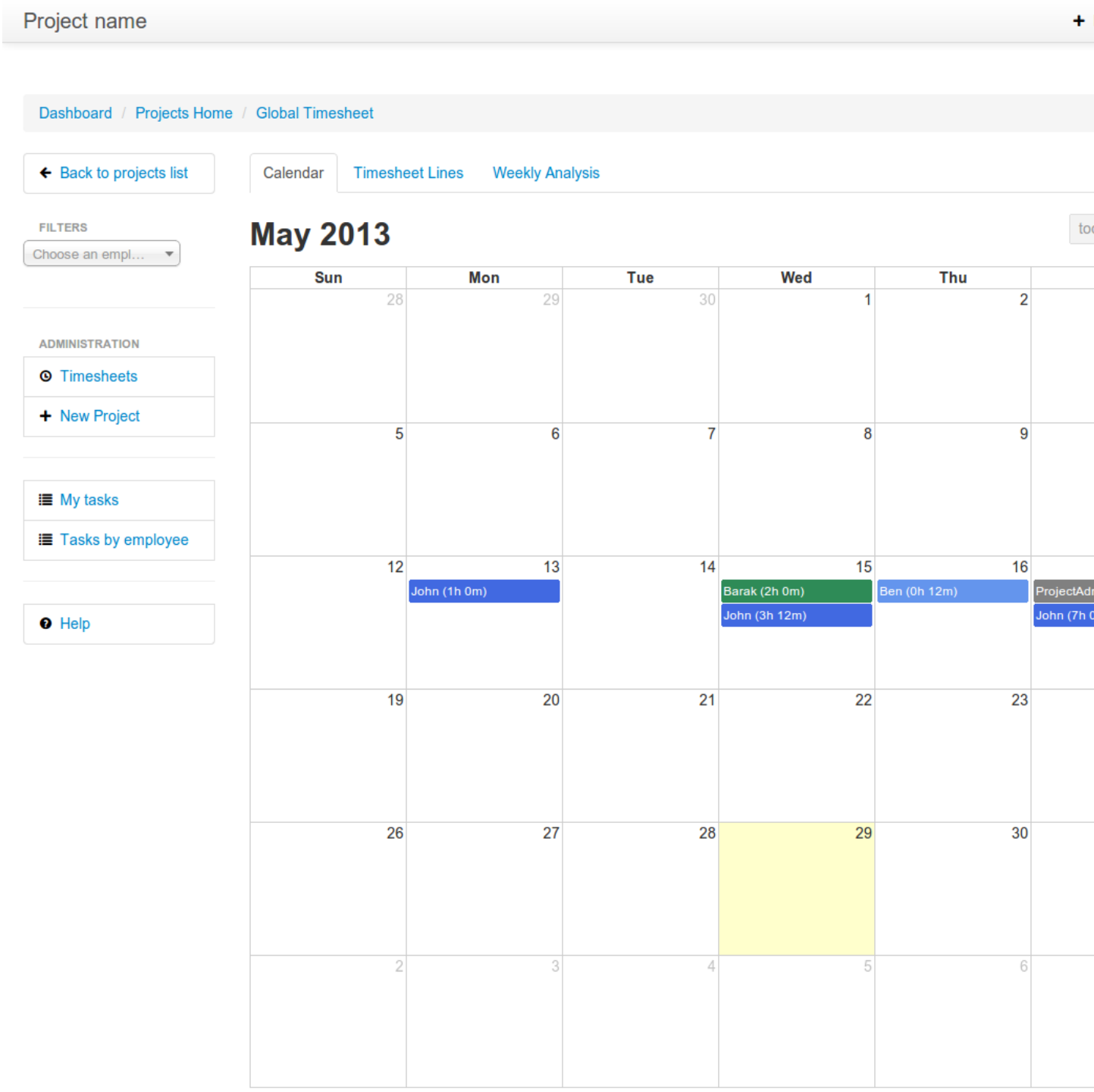
Tip: Only those projects are visible to user whose permission is provided by project admin.



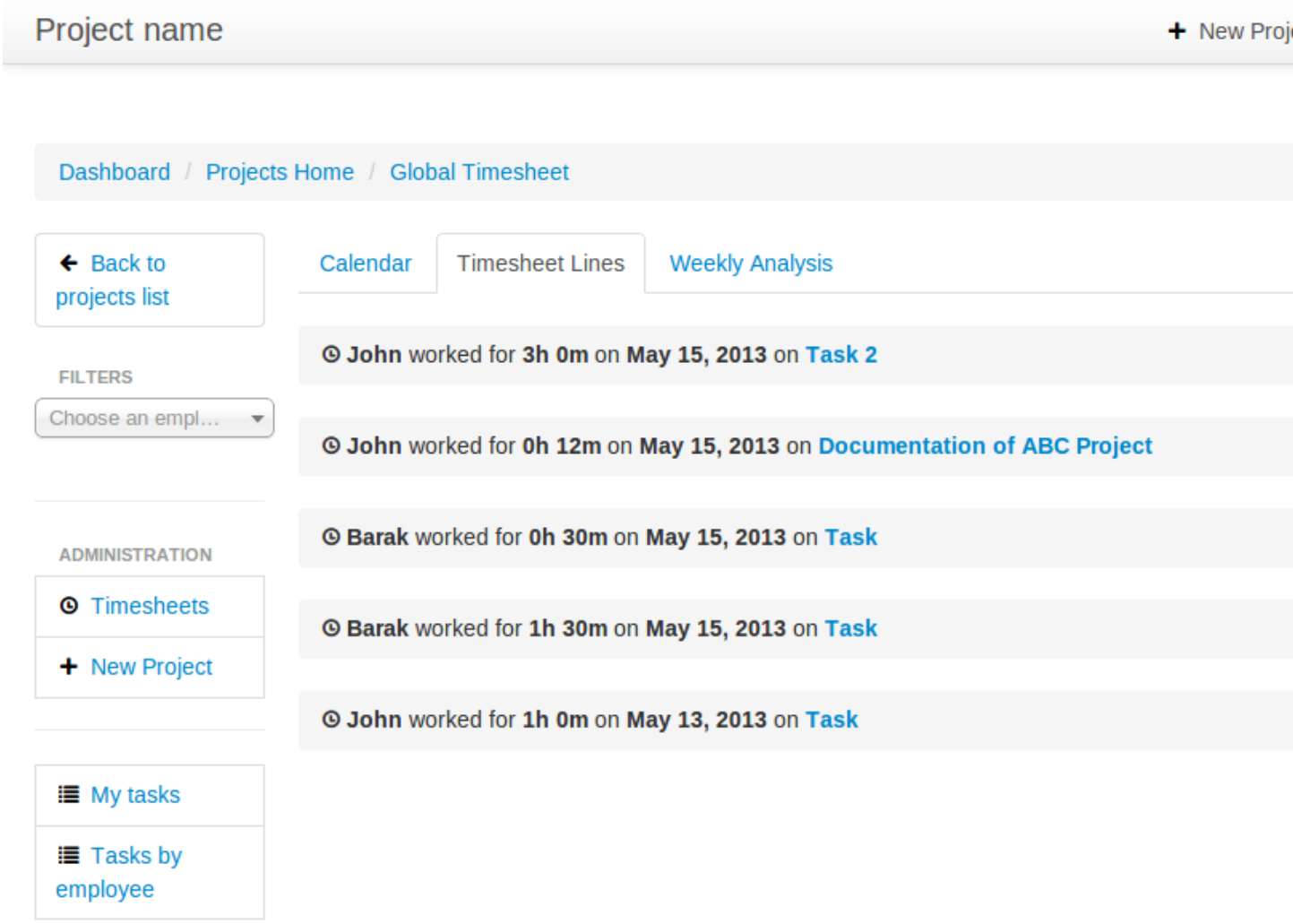
Global Timesheet

For Project Managers, and Owners - this Timesheet information 'completes the picture' of project productivity and progress. Team members do not have access to a global timesheet calendar which details every step within the project timeline. It helps to delegate and track project tasks and manage the projects effectively.

This timesheet and online project management application helps to track, or monitor every hour that is spent on a project, by whom and how they did with regards to staying within your expected target durations.



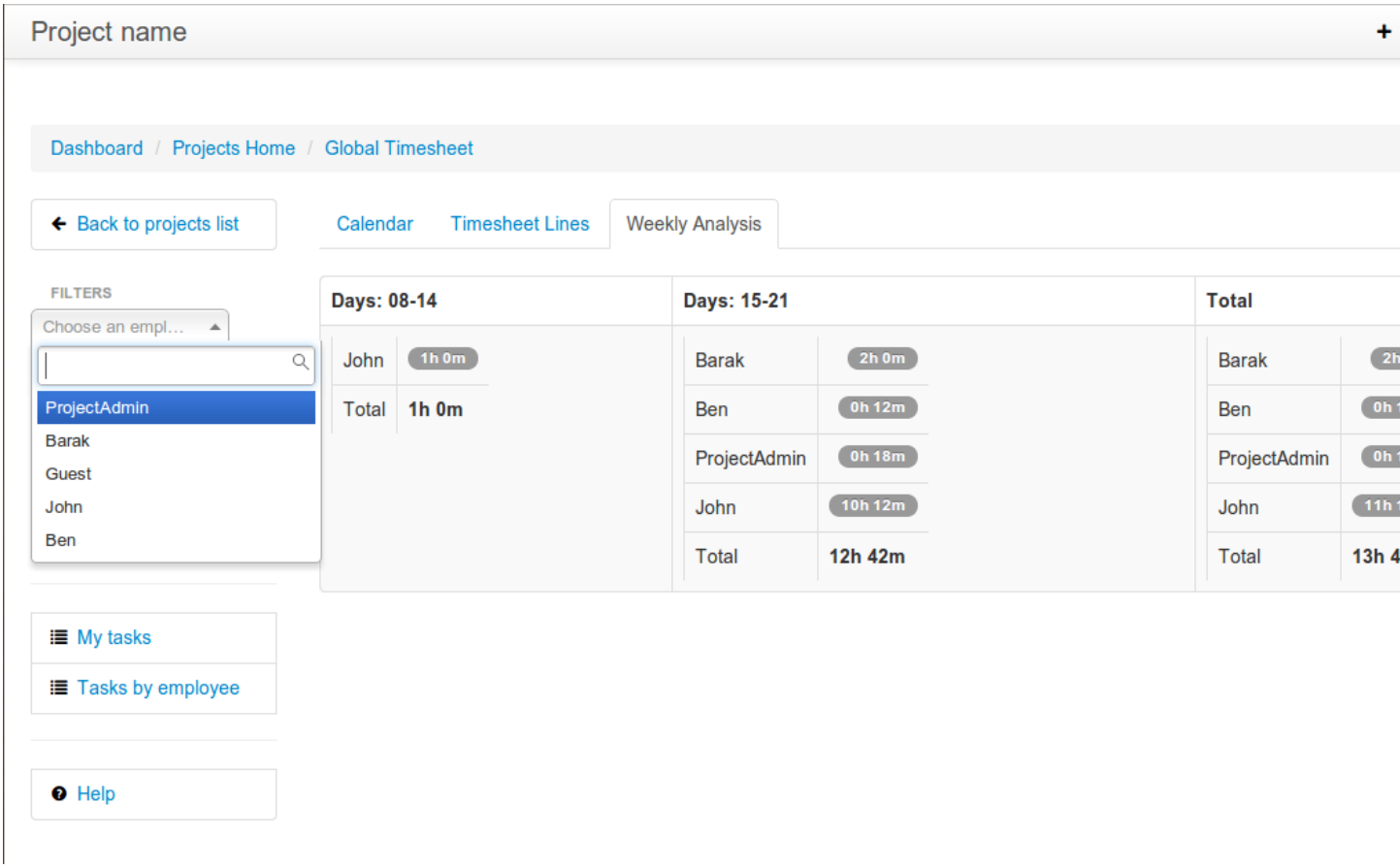
Tip: Project admin can filter the performance by employees also. See top-left side of this global timesheet page, there is a search box, enter the name of employee to checkout the performance, to track total hours spent by individual on that task. Use timesheet to efficiently record the "Hours Worked" (per Project, or Task). By using this, project admin can view the team's progress and determine whether the team is making sufficient progress.



The timesheet line express the fact that one employee spend a part of his/her time on a specific work at a given date. The list of timesheet lines of employees associated to the project and its tasks. These timesheet lines are used to analyse employee's productivity & job costs.

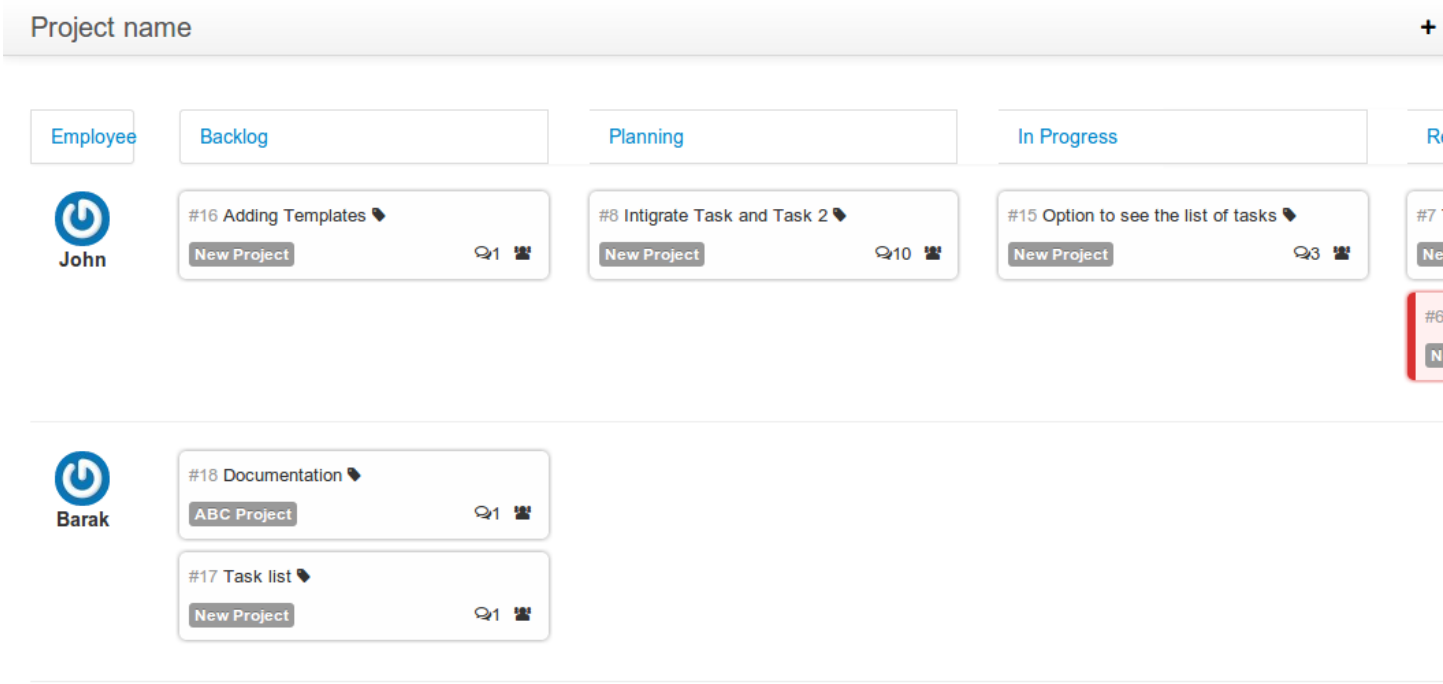
Weekly Analysis

To gather data weekly on the actual time spent by employee. For time tracking to monitor employees performance. The *Admin Users* can analyse the progress of the team of the project. You can filter it by employee's name also. Refer image:



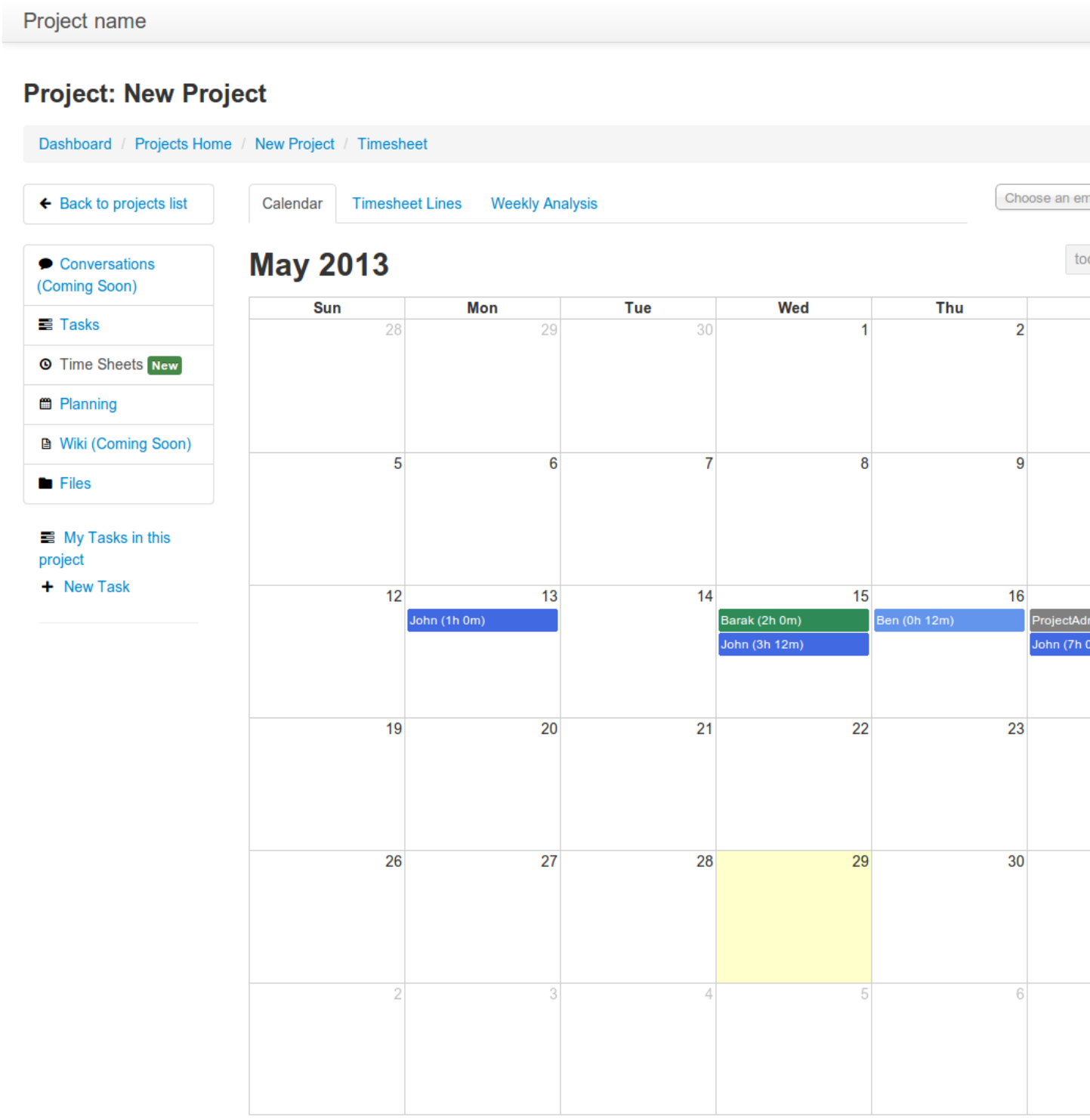
Task by employees

It show the task assigned to all your employees throughout the project management system in Kanban view. It is visible to only project admin or project manager. *Admin Users*



Calendar

The calendar is directly tied to the ongoing projects. The calendar show a graphical calendar interface with all of the pertinent ongoing tasks. It is able to filter by month, week or day. Access to calendars and the tasks held within follow the same access, setup for projects. So that users will only see the calendar items of the projects they are invited to. For project admin, calendar provides a number of powerful filters. These filters let project admin see performance of employees. This is a great feature for project admin to track your progress on the graphical Gantt charts for their most highly valued projects.



Here the logged in user can view the timesheet of his current project, and also his performance for that project.

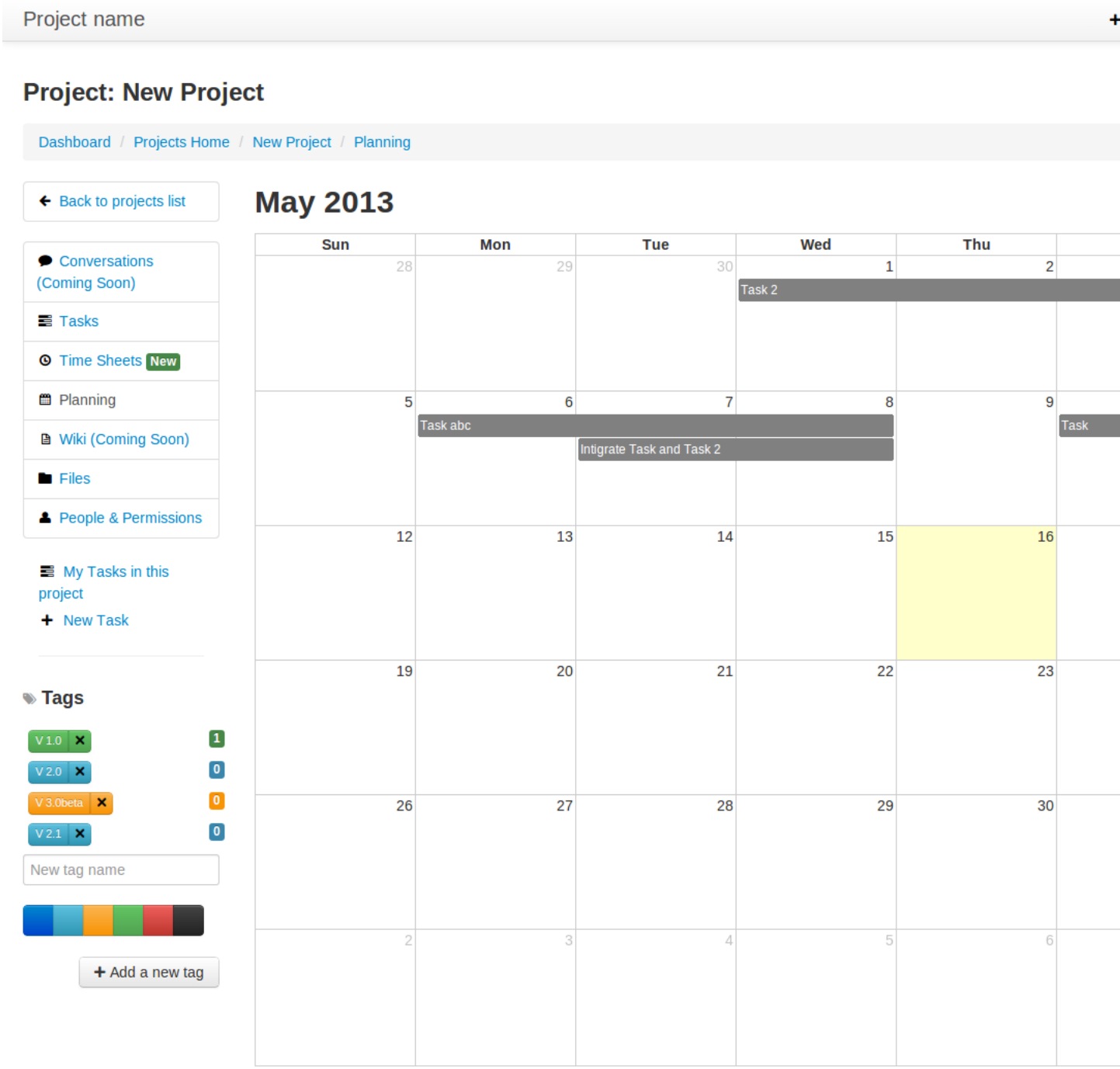
Note: For admin, its easy-to-use, for tracking employee's marked time and performance. The row on timesheet lines shows their name, time they worked for which task. Shows total time, the employee worked per day.

Project Planning

Creating a project plan is the first thing a user should do when taking any kind of project by putting start and end time on its task. Project planning is a feature used to reflect the duration of a task within a certain time period. It is a known fact that a good project plan can make the difference between the success or failure of a project.

Planning organize, schedule and ensure that tasks get done on time. On short it can boost productivity. By being better organized and more focused on what have to be done, and saves time.

This feature is used for projects, but only consist of a list of tasks. To access it, go to `Dashboard → Projects Home → New Project → Planning` (Here 'New Project' is the name of the selected project). User can select single project at a time to see the planning. It shows the Gantt chart for tasks with start and end time of task or just the duration.


Project name
Project: New Project
Dashboard / Projects Home / New Project / Planning
Back to projects list
Conversations (Coming Soon)
Tasks
Time Sheets New
Planning
Wiki (Coming Soon)
Files
People & Permissions
My Tasks in this project
New Task
Tags
V 1.0
V 2.0
V 3.0beta
V 2.1
New tag name
Add a new tag
May 2013
Sun
Mon
Tue
Wed
Thu
Task 2
Task abc
Intigrate Task and Task 2
Task

CHAPTER 5

Indices and tables

- genindex
- modindex
- search