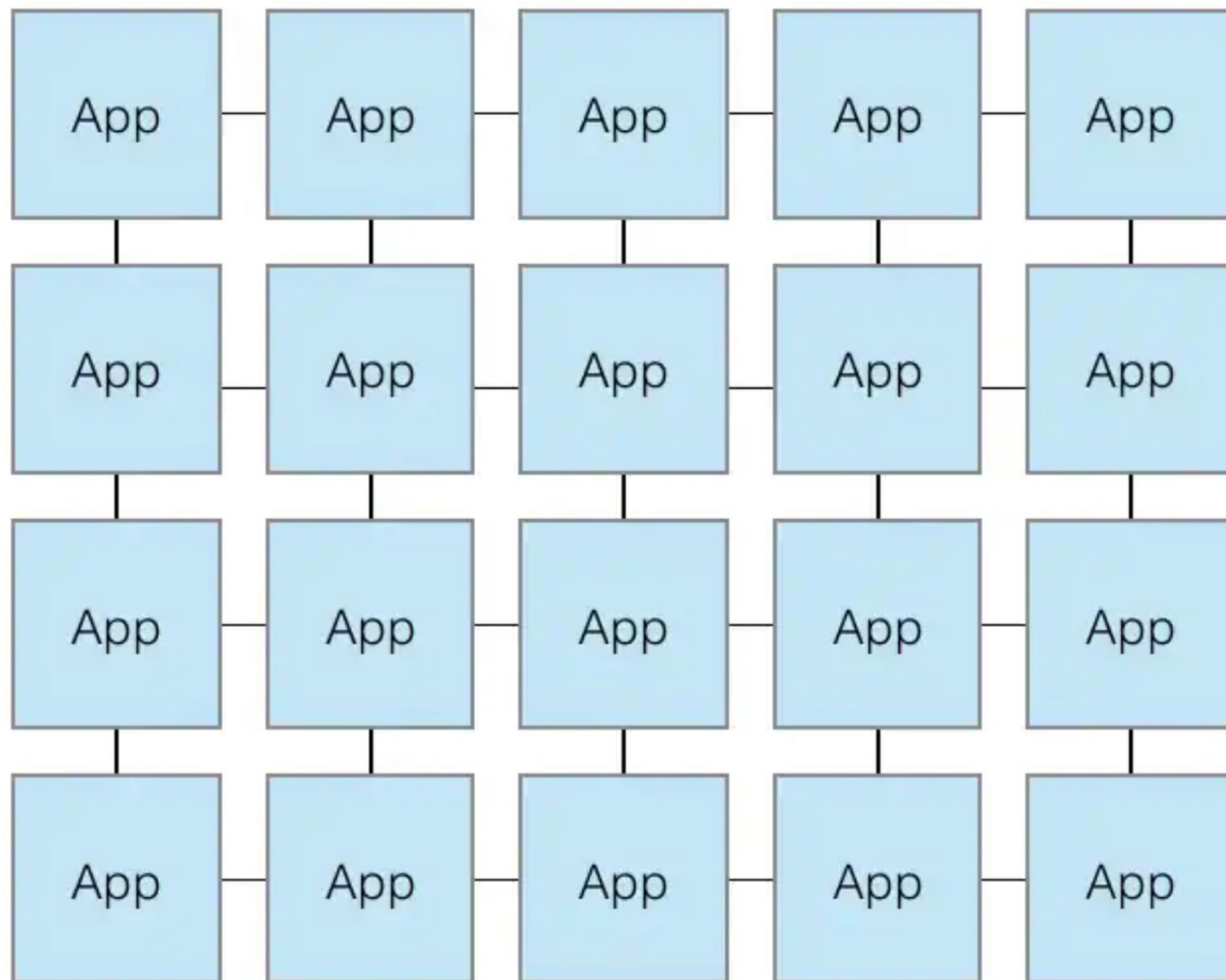


**ERPNext**

# Architecture

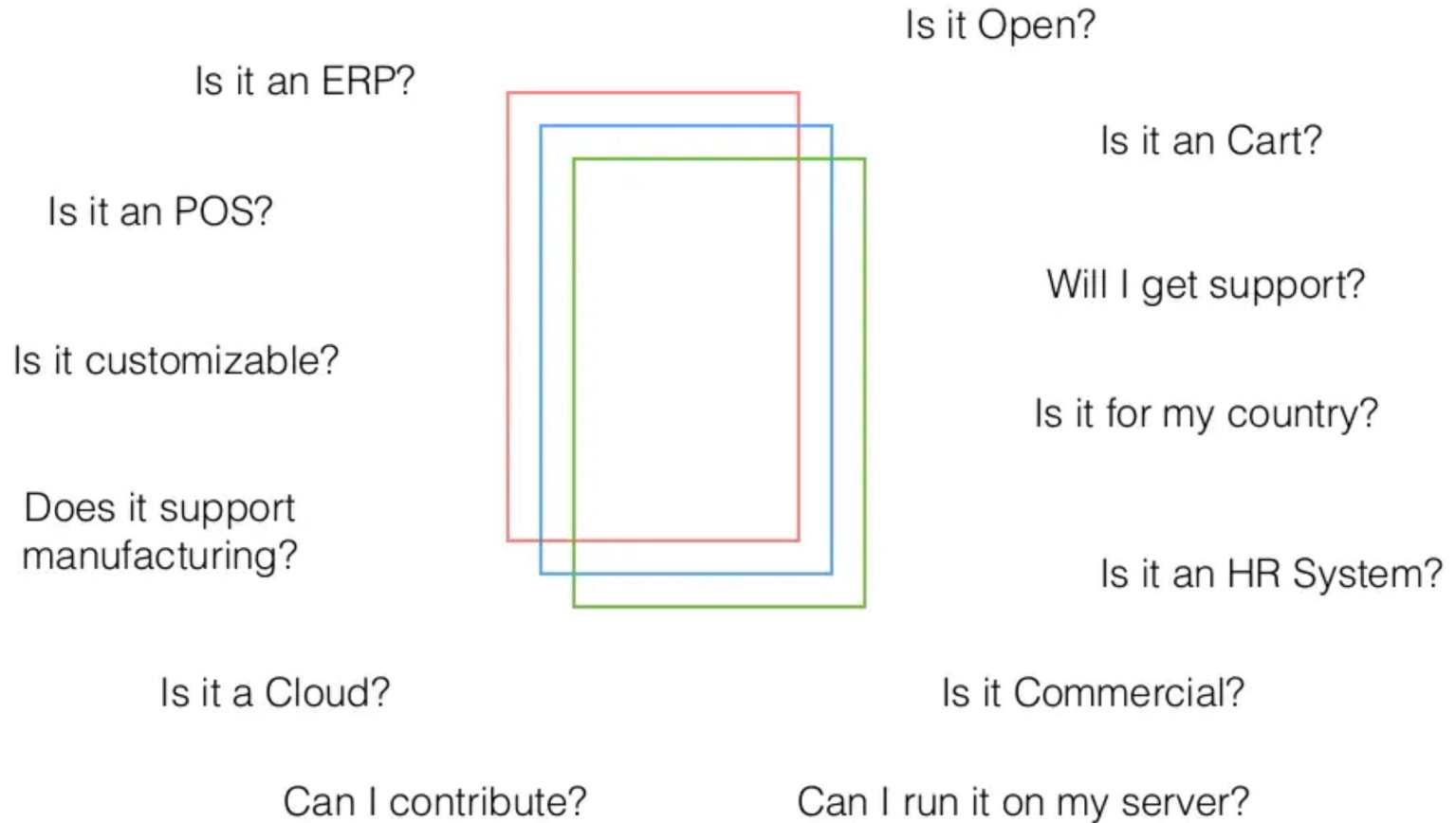


Large, Complex and Overwhelming



Small, Self-Contained and Integrated Units

# What is ERPNext?



# New ERPNext

ERPNext



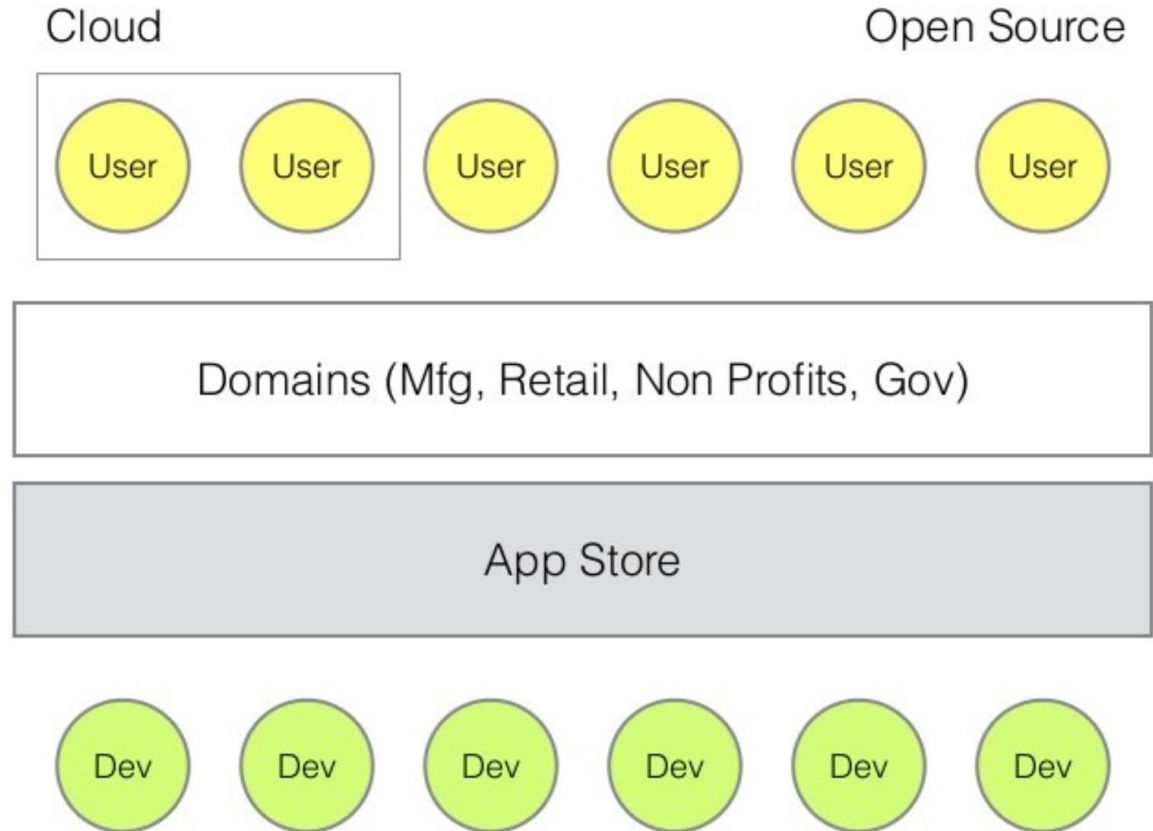
Cloud



App Store



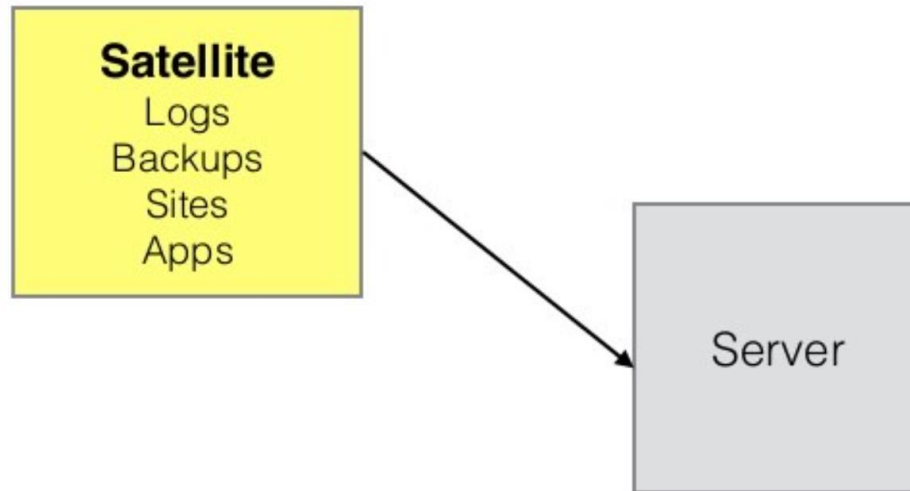
# App Store



Broader Engagement and Fulfilment for the Entire Ecosystem

# Satellite

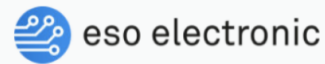
Server Management for Open Source



For Self-Hosted, Commercial Support Users and Partners

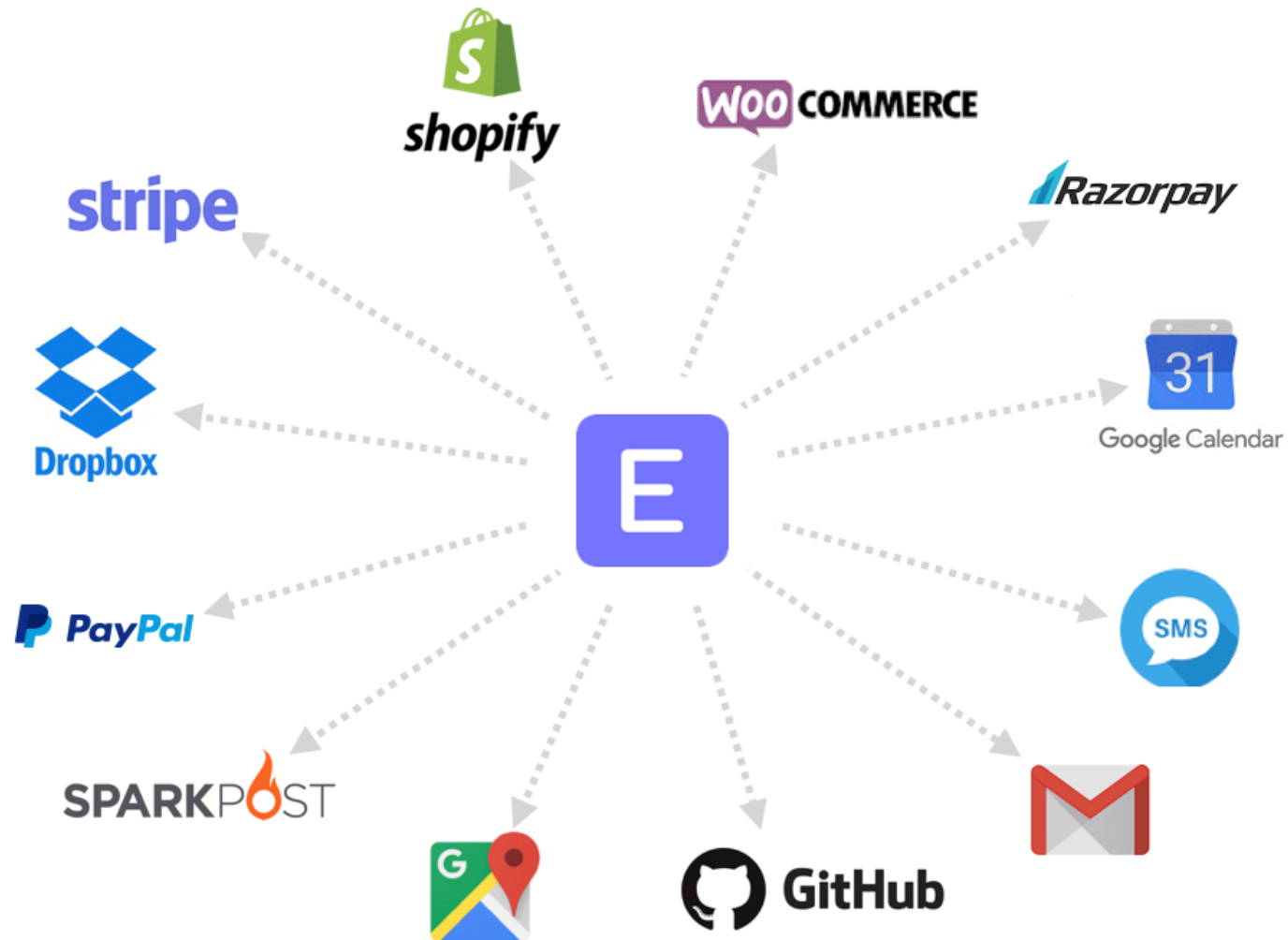
# Who is using ERPNext?

Used by more than 5000 companies across the world





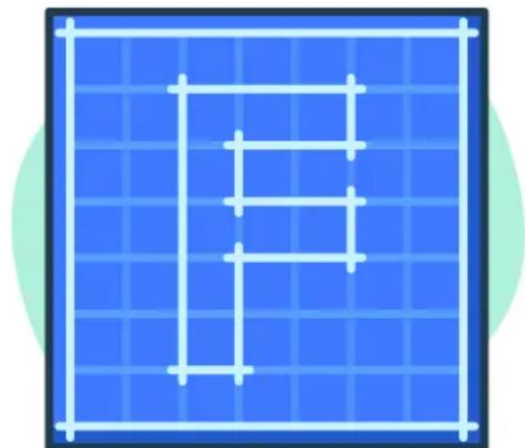
# ERPNext Integration





# 100% Open Source

Winner of BOSSIE Award (InfoWorld)  
Rated as one of the best Open Source ERPs by  
Capterra, [OpenSource.com](https://www.opensource.com), Enterprise Apps Today



## Fully Extensible using **Frappe Framework**

Build Custom Apps, Forms, API, Scripts  
Almost anything is extensible

# What is Frappé?

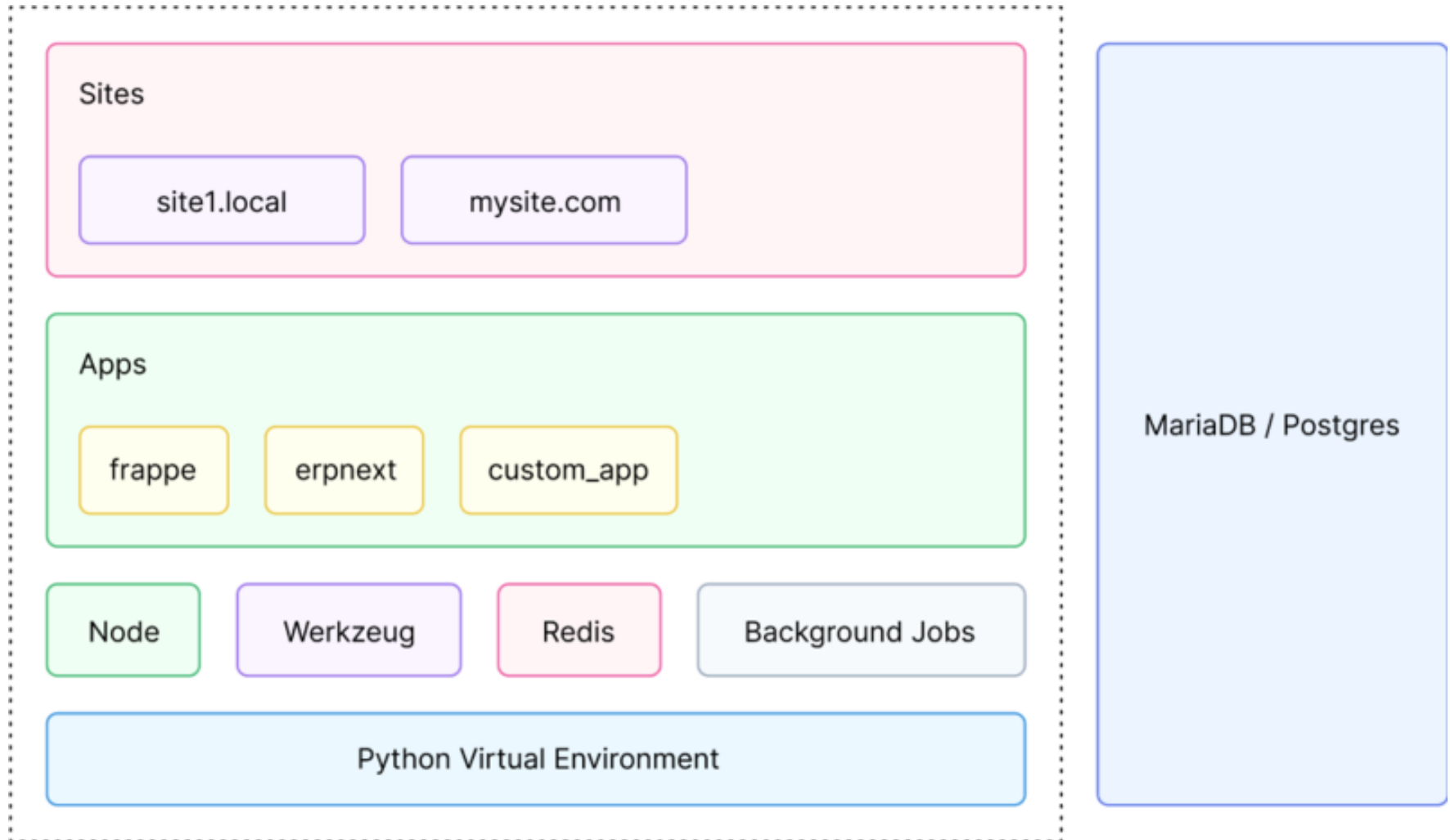
**Low code full stack web framework for real world applications, in Python and Javascript**

- **Web App Framework (based on Werkzeug)**
- **MVC + ORM (object relational mapper)**
- **Sessions, Users, Roles, Permissions, Caching**
- **Rich, scriptable admin UI (Javascript)**
- **UI driven form and model builder**
- **Routing and templating (Jinja)**
- **Async and realtime (Node + socketio)**
- **Background workers (Python RQ)**
- **Multi-Tenant production deployment (supervisor, Nginx, Redis)**
- **Extensible architecture (pluggable apps)**

# Before You Start

1. **Python** - Frappé uses Python (v2.7) for server-side programming to write quality server-side code, you must also include automated tests.
2. **MariaDB / MySQL** - To create database-driven apps with Frappé, you must understand the basics of database management, like how to install, login, create new databases, and basic SQL queries.
3. **HTML / CSS** - If you want to build user interfaces using Frappé, you will need to learn basic HTML / CSS and the Bootstrap CSS Framework.
4. **JavaScript and jQuery** - To customize forms and create rich user interfaces, you should learn JavaScript and the popular library jQuery.
5. **Jinja Templating** - If you are customizing Print templates or Web pages, you need to learn the Jinja Templating language. It is an easy way to create dynamic web pages (HTML).
6. **Git and GitHub** - Learn how to contribute back to an open source project using Git and GitHub, two great tools to help you manage your code and share it with others.

**Frappé includes all the tools needed to deploy a site into production. Database, caching, background jobs, realtime notifications, etc are all configured when you set up a Frappe site.**



# Installing the Frappé Bench

Easiest way to setup frappe on a Unix Like system is to use frappe-bench. The bench is a command-line utility that helps you to install apps, manage multiple sites and update Frappe / ERPNext apps on \*/nix (CentOS 6, Debian 7, Ubuntu, etc) for development and production. Bench will also create nginx and supervisor config files, setup backups and much more.

- Two ways of install:
  - Manual Install
  - Easy Install (to be explained)

# Easy Install

- Best to setup on a blank server.
- Works on Ubuntu 14.04 to 16.04, CentOS 7+, Debian 7 to 8 and MacOS X.
- You may have to install Python 2.7 (eg on Ubuntu 16.04+) by running `apt-get install python-minimal`
- You may also have to install `build-essential` and `python-setuptools` by running `apt-get`



E

> Selling

Search or type a command (Ctrl + G)

Q

T

Test User

20+

Customer

Menu

Refresh

New

Reports

Assigned To Me

TAGS

No records tagged.

Add Filter

Last Modified On

<div><div></div><div></div></div>	Full Name	Status	Customer Group	
<div><div></div><div></div></div>	Hind Enterprises	Open	Commercial	4 d <div><div></div><div></div></div>
<div><div></div><div></div></div>	Netobill	Open	Commercial	5 d <div><div></div><div></div></div>
<div><div></div><div></div></div>	Adaptas	Active	Commercial	5 d <div><div></div><div></div></div>
<div><div></div><div></div></div>	Red Food	Active	Commercial	6 d <div><div></div><div></div></div>
<div><div></div><div></div></div>	Asian Fusion	Active	Commercial	6 d <div><div></div><div></div></div>
<div><div></div><div></div></div>	Big D Supermarkets	Active	Commercial	6 d <div><div></div><div></div></div>
<div><div></div><div></div></div>	Mr Fables	Active	Commercial	6 d <div><div></div><div></div></div>
<div><div></div><div></div></div>	Intelacard	Active	Commercial	4 M <div><div></div><div></div></div>
<div><div></div><div></div></div>	Chi-Chis	Active	Commercial	4 M <div><div></div><div></div></div>
<div><div></div><div></div></div>	Choices	Active	Commercial	4 M <div><div></div><div></div></div>


List View

E
> Selling
> Customer

Search or type a command (Ctrl + G)

Rushabh Mehta
20+

Rohit Industries Group (P) Ltd
Active
Menu
Save



Comments
0

ASSIGNED TO

Assign +

ATTACHMENTS

https://www.rig...


Attach File +

TAGS

Add a tag...

SHARED WITH

+



This is based on transactions against this Customer. See timeline below for details

Pre Sales

Opportunity 1

Quotation 9

Support

Issue 9+

Orders

Sales Order 7

Delivery Note

Sales Invoice 9+

Projects

Project

NAME AND TYPE

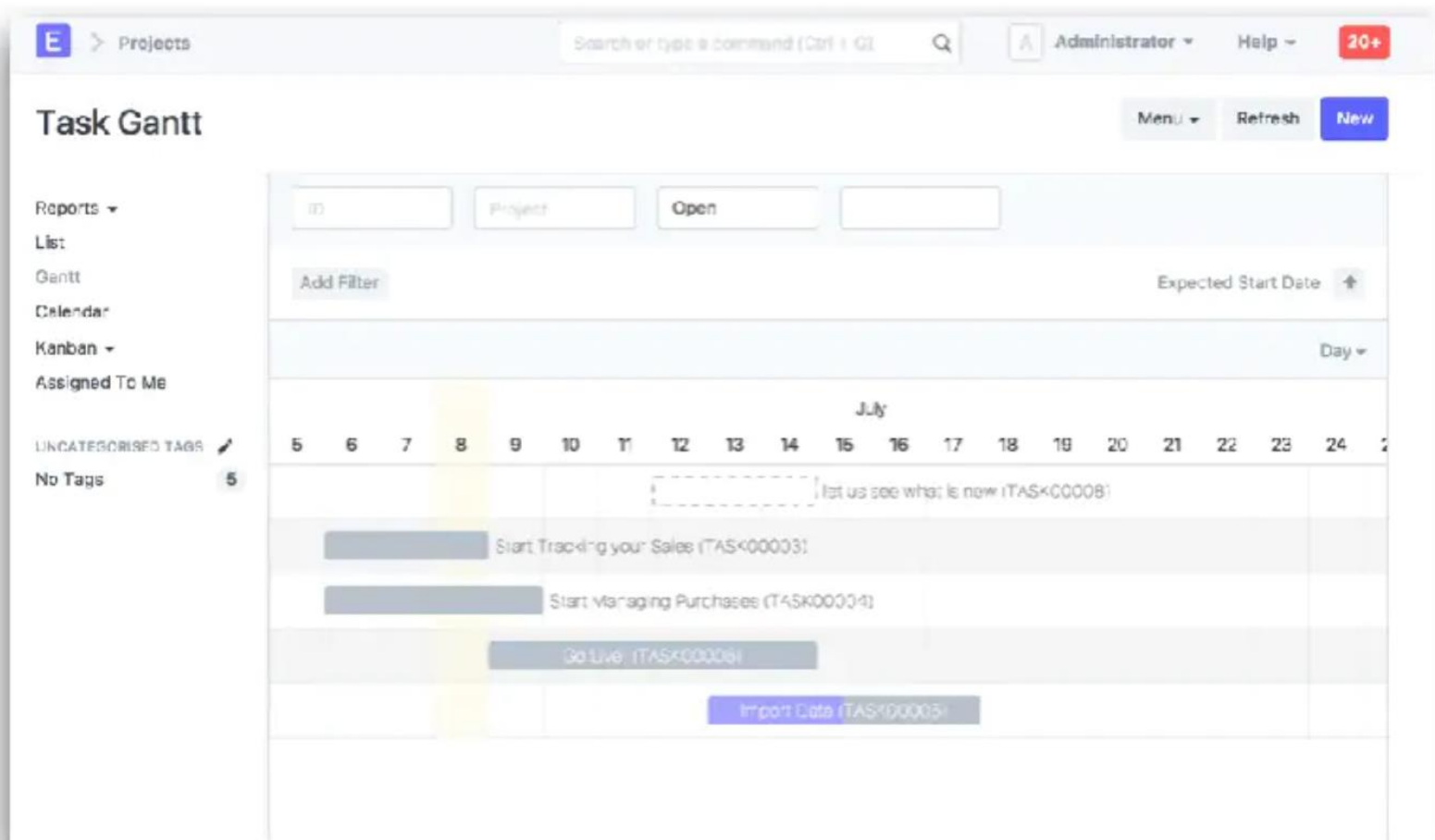
Full Name

Rohit Industries Group (P) Ltd

Customer Group

Corporate

Form Views



## Gantt Views

E

> Projects

Search or type a command (Ctrl + G)

Q

A

Administrator

▼

Help

▼

20+

Task Calendar

Menu

Refresh

New

Reports

▼

List

Gantt

Calendar

Kanban

▼

Assigned To Me

UNCATEGORISED TAGS

No Tags

5

ID

Project

Open

Add Filter

Last Modified On

▼

July 2017

<

>

month

week

day

SUN	MON	TUE	WED	THU	FRI	SAT
25	26	27	28	29	30	1
2	3	4	5	6	7	8
				12a Start Managing Purchases		
				12a Start Tracking your Sales		
9	10	11	12	13	14	15
12a Go Live!						
				12a Import Data		
16	17	18	19	20	21	22

Calendar View

E > CRM

Search or type a command (Ctrl + G)

Rushabh Mehta Help 20+

## Opportunity Board

Menu Refresh New

Reports ▾  
List  
Kanban ▾  
Assigned To Me

UNCATEGORISED TAGS  
No Tags 2

ID Customer Lead Campaign

Next Contact By

Add Filter Last Modified On

● Open ▾

Enquiry for Manufacturing ERP suite 3

RE: Technical Support 1

+ Add Opportunity

● Replied ▾

Lucas 2

Translation to Danish 15

FW: Please confirm this email address for ERPNext 5

Issue with my cloud ERPNext

● Closed ▾

Query 3

Link to the codes 3

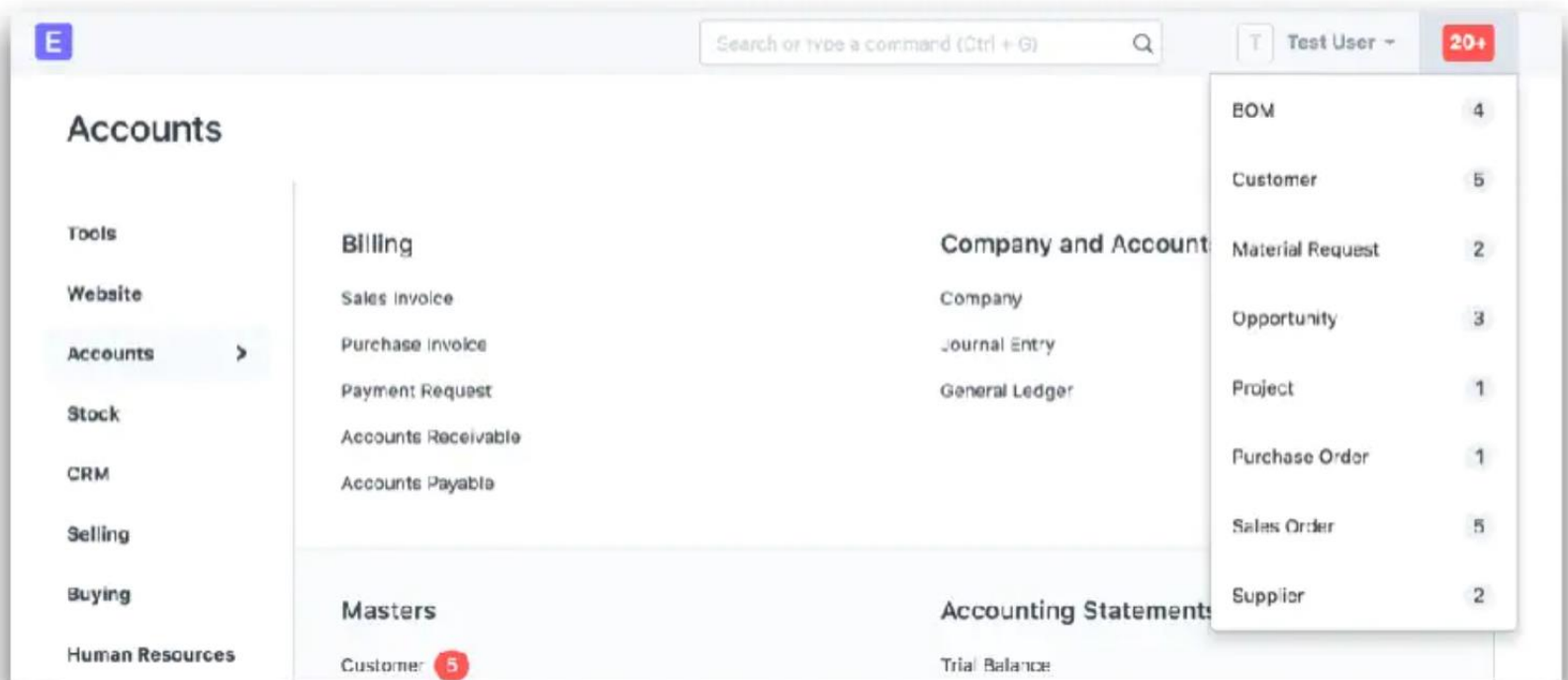
completion of assignment 5

Logo 3

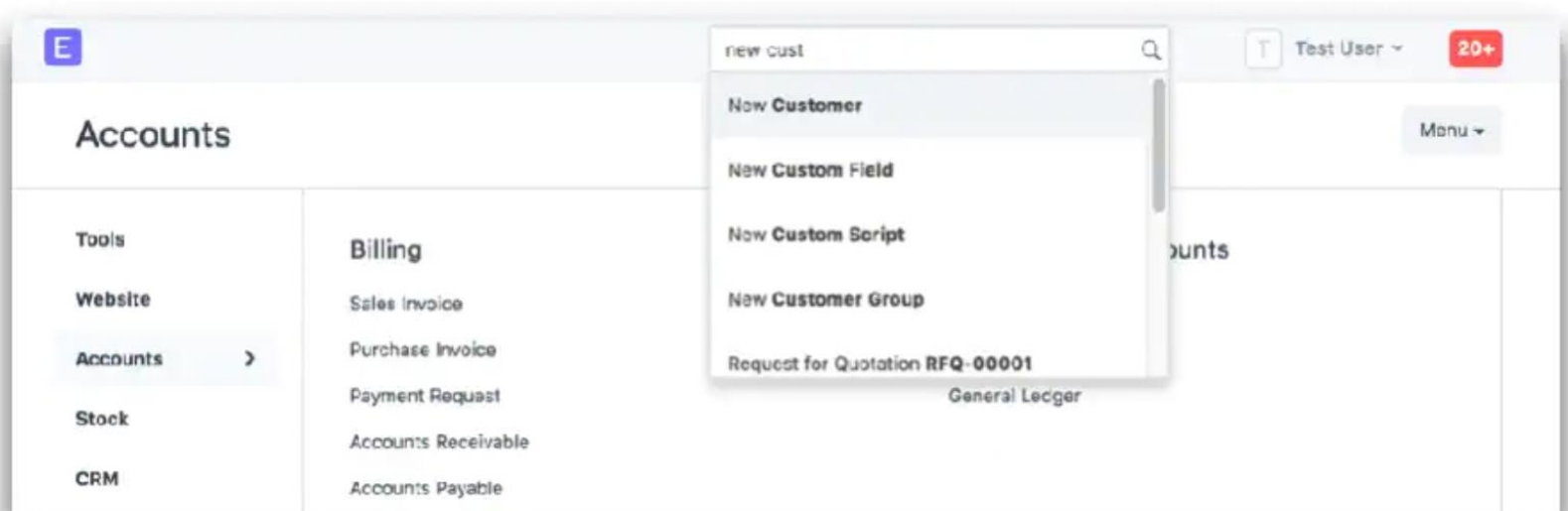
● Quotation ▾

+ Add Opportunity

Kanban Views



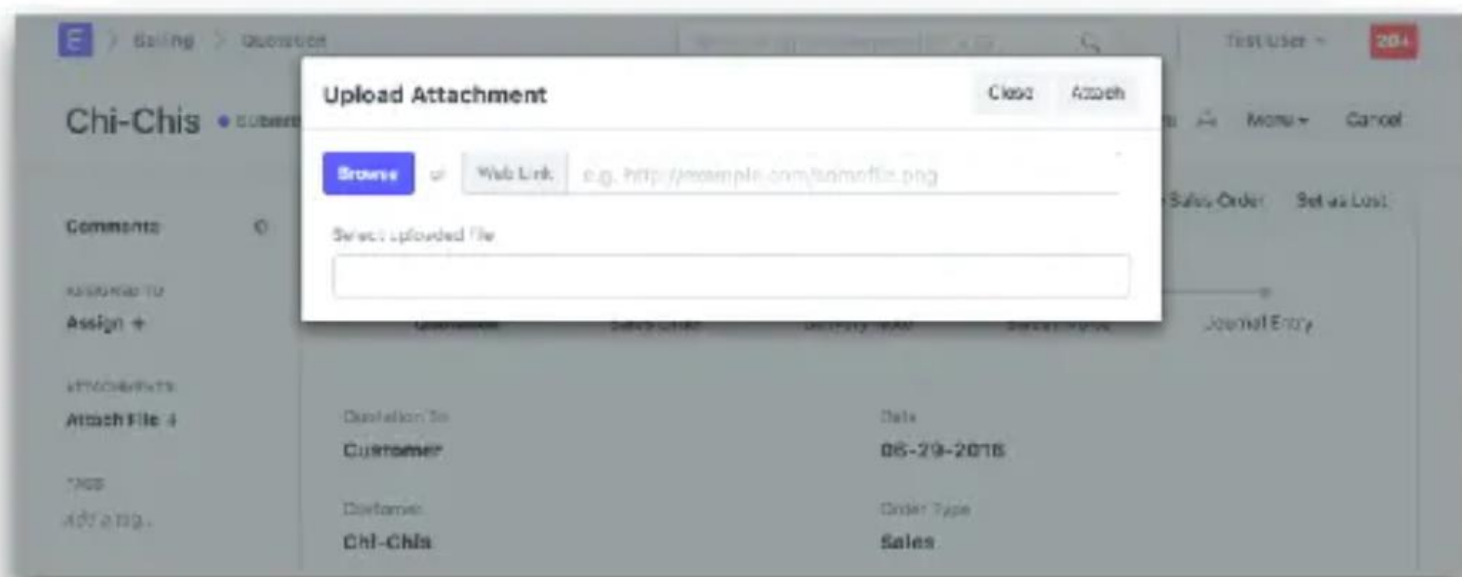
## Modules and Notifications



Universal Search

## Email documents





## File Attachments

E
> Selling
> Quotation

Pricing - 12 Items (1 Subtotal) - QTN-0026

Test User
20+

Chi-Chis
Submitted
QTN-0026
Menu
Edit

### Quotation

QTN-0026

Customer Name

Chi-Chis

Date


05-29-2016

Address

R. Cimo Via 6  
Ribeirão  
Portugal  
Phone: 33686775757

Contact

Hand Representation

Sr	Item Code	Description	Image	Quantity	Rate	Amount
1	Wind Mill A Series	Wind Mill A Series for Home Use 20		has 2	\$ 320.00	\$ 640.00

Print Views

[My Account](#)[Projects](#)[Request for Quotations](#)**[Orders](#)**[Invoices](#)[Shortcuts](#)[Issues](#)[Addresses](#)

## Orders



★ SO-00004 Mar 2, 2015, 5:34:55 PM	Wind Mill A Series, Shaft	\$ 1,340.00
★ SO-00003 Mar 2, 2015, 5:34:54 PM	Wind Mill A Series, Wind Turbin...	\$ 1,132.40
★ SO-00002 Feb 1, 2015, 5:34:42 PM	Gearing Block, Wind Mill A Series	\$ 336.00
★ SO-00001 Feb 1, 2015, 5:34:42 PM	External Disc, Wind Mill C Series	\$ 1,891.20

Total Time: 00:00:00...

[Get updates](#)

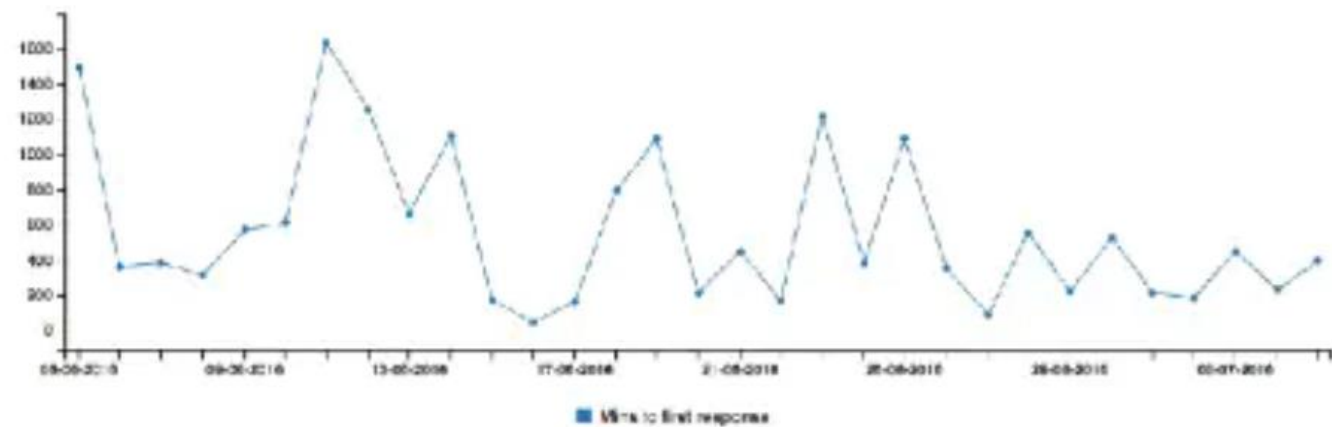
# Web Views

## Minutes to First Response for Opp...

[Menu](#)
[Refresh](#)

05-06-2016

06-07-2016



OPPS	DATE	MINUTES TO FIRST RESPONSE
1	05-07-2016	396,000
2	04-07-2016	203,250
3	03-07-2016	450,000

# Reports

E

Setup

DocType

Search or type record name (Ctrl + G)

T

Test User

20+

Quotation

Comments

0

ASSIGNED TO

Assign +

ATTACHMENTS

Attach File +

TAGS

Add a tag...

SHARED WITH

+

0

You edited this

2 months ago

Module

Selling

Document Type

Document

Is Child Table

Child Tables are shown as a Grid in other DocTypes.

Is Single

Single Types have only one record no tables associated. Values are stored in tabSingle.

Icon

icon-shopping-cart

Custom?

Beta

FIELDS

	Label	Type	Name	Mandatory	Options
1		Section Break	customer_section		icon-wallet
2		Column Break	column_break3		
3	Title	Date	title		
4	Series	Select	naming_series	✓	OTN-

## Metadata Modeling

E > Setup > DocType

Search or type a command (Ctrl + Q)

Test User 90+

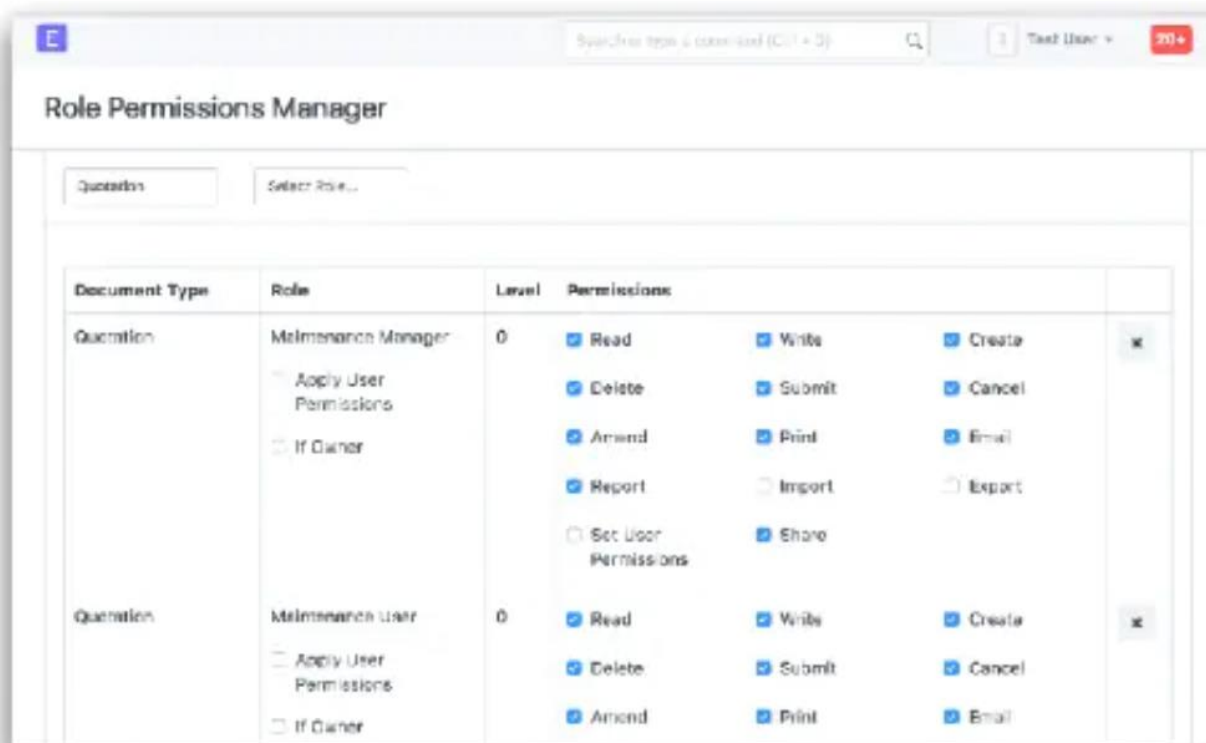
## Quotation

Menu Save

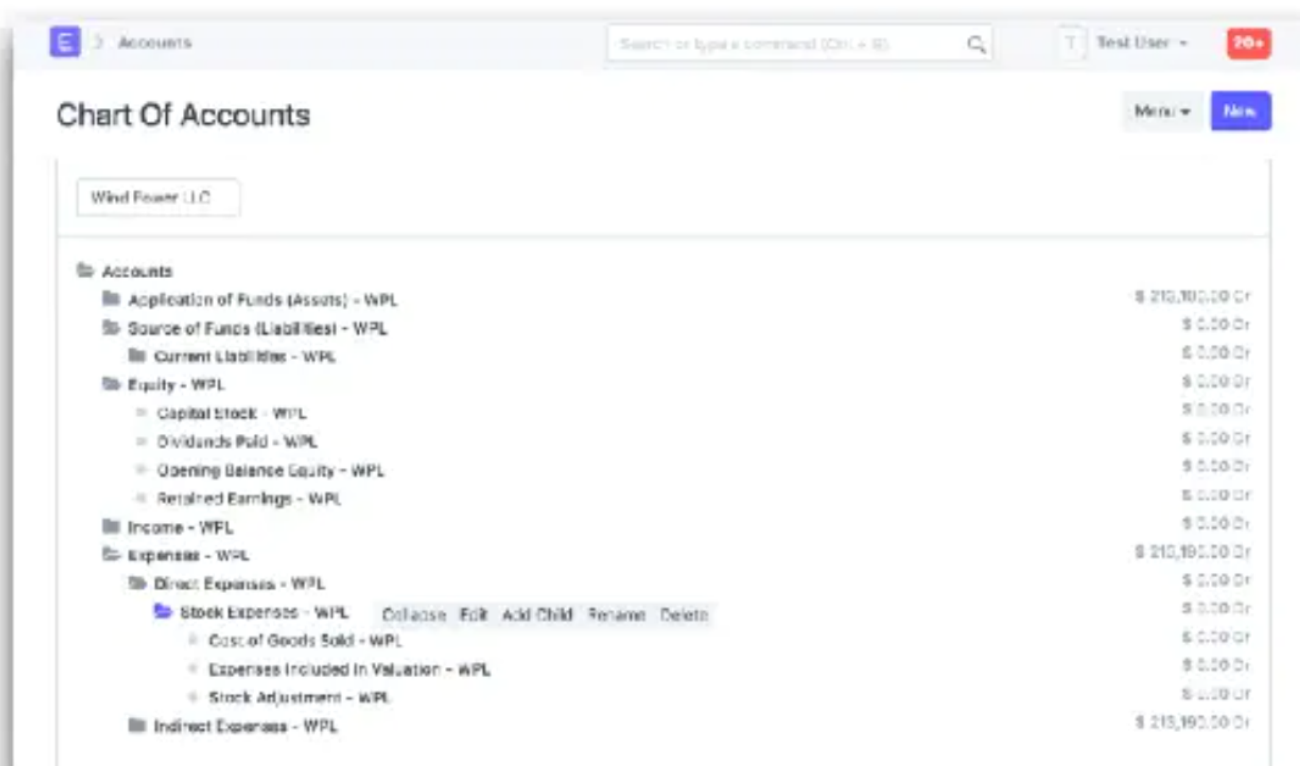
Editing Row #7 Remove Insert Above Done

Label	Options
<input type="text" value="Lead"/>	<div>Lead</div>
Type	
<input type="text" value="Link"/>	
Name	
<input type="text" value="lead"/>	
<input type="checkbox"/> Mandatory	For Link, enter the DocType as target. For Select, enter list of Options, each on a new line.
Length	Default
<input type="text" value="0"/>	
<input type="checkbox"/> Index	
<input type="checkbox"/> in List View	
<input checked="" type="checkbox"/> Bold	

Model Fields



Role based Permissions



## Tree Views and Nested Sets



**العربية (ar)**

711 messages edited, 1702 verified of 5769

**български (bg)**

236 messages edited, 34 verified of 5769

**বাংলা (bn)**

46 messages edited, 27 verified of 5769

**བོད་སྐད་ (bo)**

2 messages edited, 0 verified of 5769

**bosanski (bs)**

693 messages edited, 847 verified of 5769

**català (ca)**

37 messages edited, 115 verified of 5769

**Česky (cs)**

867 messages edited, 1723 verified of 5769

**dansk (da)**

106 messages edited, 56 verified of 5769

**Dansk (Danmark) (da-DK)**

0 messages edited, 0 verified of 5769

**deutsch (de)**

7801 messages edited, 3274 verified of 5769

**ελληνικό (el)**

21 messages edited, 287 verified of 5769

**español (es)**

4944 messages edited, 2053 verified of 5769

**Español (Perú) (es-PE)**

51 messages edited, 50 verified of 5769

**eesti (et)**

0 messages edited, 2 verified of 5769

**فارسی (fa)**

200 messages edited, 335 verified of 5769

Translation Portal

```
def add_customer(name, group):
    c = frappe.new_doc("Customer")
    c.customer_name = name
    c.customer_group = group
    c.insert()

def get_most_valued_customer(since):
    return frappe.get_all("Sales Invoice",
        filters = {"transaction_date": (">", since)},
        fields = ["customer", "sum(grand_total) as total_income"],
        group_by = "customer",
        order_by = "total_income desc", limit = 1)[0].customer
```

Scripting API

## Also includes...

- **REST API**
- **Bootstrap based responsive UI**
- **Workflows, Alerts**
- **Cross-site scripting (XSS) Filtering**
- **Database migrations (schema sync)**
- **Update tool (update and deployment tool)**
- **Package Manager**
- **Test Framework**
- **Ansible based deploy scripts**
- **Web Sockets**
- **frappe.publish\_realtime('event', 'message'))**

