# Title: CPQ Development setup

# Tech Overview:

     We have built Cpq application as a microservice. So that would mean, we have separate code base , separate rails app running in different stack. We are supporting GRPC protocol for our apis. Quick installation goes as below

1. rvm install 2.6.10(rvm is prefered - rvm version 1.29.10)   
          (OR)  
   For rbenv => run "rbenv install 2.6.10"
2. clone <https://github.com/freshdesk/cpq> repo
3. app uses rails 6
4. Create a new gemset
   1. rvm use 2.6.10                     (OR)        For rbenv run  "rbenv gemset create 2.6.10 cpq"
   2. rvm gemset create rails6   (OR)        For rbenv run  "rbenv gemset init cpq"
   3. rvm use 2.6.10@rails6.       (OR)        For rbenv run  "rbenv gemset active"
   4. gem install bundler -v 2.2.33
5. bundle install
6. rake db:migrate
7. Add the below line to /etc/hosts if it is not already present

* *0.0.0.0 localhost*

1. To boot CPQ rails app => run "bundle exec gruf --backtrace-on-error" (to support grpc)
2. Microservice will have its own background workers. to start CPQ Repo sidekiq => run "bundle exec sidekiq"
3. Build Freshsales front end == > cd freshsales/frontend ==> run "ember build --watch"

   Products and documents modules are now become default modules for all new signups..so no need to add the features and setup manually.

#### GRPC PROTO:

         1. We have another repo where we maintain GRPC message protos <https://github.com/freshdesk/cpqgrpc>  .

         2 . **Protos** are the basic building blocks of GRPC protocol. To learn more about **protos** and **grpc** follow below links

               1. <https://developers.google.com/protocol-buffers/docs/proto3>

                2. <https://grpc.io/docs/tutorials/basic/ruby/>

                3. [https://github.com/bigcommerce/gruf](https://github.com/bigcommerce/gruf/blob/master/UPGRADING.md)

#### Issues:

→ If you face any issues in running db migrations, please update shard: all to shard: none in the migration files under db/migrate folder

→ If you face any issues due to eager loading after server start,

set 'Bullet.enable=false' in the config/environments/development.rb file

→ If you face any issues in getting the choice values from redis, please execute the following rake task  as given in the step 5

'*bundle exec rake choice\_redis\_cache:build SHARD=shard\_1 ACCOUNT\_IDS=<acid>'*

**Enabling CPQ documents:**(if not enabled)

1.To add document feature

Sharding.select\_shard\_of(account\_id) do  
 account = FdMultitenant::Account.find\_by\_id(account\_id).make\_current  
 account.add\_feature(:cpq\_documents)  
 end

2 . Script to be run:

**CPQ document setup script** Expand source

account\_id = 1613056416  
include Cpq::MigrationUtil  
Sharding.select\_shard\_of(account\_id) do  
 account = FdMultitenant::Account.find(account\_id).make\_current  
 user = FdMultitenant::Account.current.users.first  
 DOCUMENT\_TYPE\_OPTIONS = [{ 'value' => 'Quote', 'position' => 1 },  
 { 'value' => 'Proposal', 'position' => 2 },   
 { 'value' => 'Non-disclosure agreement', 'position' => 3 },  
 {'value' => 'Master service agreement', 'position' => 4}].freeze  
 new\_configs = {}  
 run\_cpq\_setup(account.id, user.id, 'cpq\_documents', DOCUMENT\_TYPE\_OPTIONS)  
 new\_configs['cpq\_document\_enabled'] = true  
 new\_configs['cpq\_document\_migration\_status'] = MIGRATION\_STATUS[:completed]  
 account.account\_setting.reload  
 cpq\_configs = account.account\_setting.cpq\_configs || {}  
 account.account\_setting.cpq\_configs = cpq\_configs.merge(new\_configs)  
 status = account.account\_setting.save  
 if status  
 puts "CpqDocument Form was created successfully for account #{account\_id}"  
 else  
 puts "There is some problem in CpqDocument Form creation for account #{account\_id}"  
 end  
end

3. Query to add cpq addon to subscriptions table

**Query to add cpq Addon**  Expand source

INSERT INTO `subscription\_addons` (`id`, `name`, `amount`, `renewal\_period`, `addon\_type`, `created\_at`, `updated\_at`, `units`, `subscription\_id`, `account\_id`)  
VALUES  
 (1, 'cpqAddon',1.00, 1, 1,'2020-11-11 09:15:43','2020-11-11 09:15:43',30,228,1613056416);

4. Add extra cpq-addon license to your role.

**Script to add cpa addon license** Expand source

def add\_cpq\_license(account\_id, agent\_limit)  
 Sharding.select\_shard\_of(account\_id) do  
 account = FdMultitenant::Account.find(account\_id).make\_current  
 cpq\_addon\_config = Subscription::Addon.where(name: "cpqAddon").first  
 if cpq\_addon\_config.blank?  
 addon = Subscription::Addon.new  
 addon.name = 'cpqAddon'  
 addon.addon\_type = SubscriptionConstants::ADDON\_TYPE[:recurring]  
 addon.subscription\_id = account.subscription.id  
 addon.amount = 1.0  
 addon.units = agent\_limit  
 addon.renewal\_period = 1  
 addon.save!  
 end  
 account.add\_feature(:cpq\_documents)  
 account.invalidate\_sessions\_version\_from\_client\_cache  
 end  
end  
add\_cpq\_license(1678954323, 5)

5. To Populate choice ids in redis

*bundle exec rake choice\_redis\_cache:build SHARD=shard\_1 ACCOUNT\_IDS=<acid>*

**Troubleshoot:**

**Problem 01:** If you faced Segmentation fault: 11 error while building frontend ember. Add the following to package.json and do yarn

"resolutions": {  
    "ember-intl-tel-input/ember-cli-sass": "7.1.4"  
  },

**Problem 02:** If you are facing issue with installing a new version of ruby with rbenv/rvm with below error:

configure: error: something wrong with LDFLAGS="-L/Users/gdaneti/.rbenv/versions/2.6.10/lib"

 Please try to comment the PATH and LIBRARY\_PATH variables in your zshrc/bash\_profile files.

**Problem 03:** If you you are facing issue on creating products in fsales app with the below error:

error: Metadata too long, risks exceeding http2 trailing metadata limit.

This might be misleading error(it is a warning only), check if there is an error as below:

Mysql2::Error: Field 'id' doesn't have a default value

Then you can try adding **strict: false** for the dev shards in database.yml file.