Medicine Data Portal (Prototype)

Use Case Documentation v2.2

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Introduction & Summary

Document Summary

This document is **only a sample** documentation to refer to different use cases of the prototype of the official software of Medicine Patent Pool. It serves as a sample guide to explore the **usage of the prototype** software and only covers different use cases. Therefore, **no pre-requisites**, **installation instructions**, **future scope or other details** of the software are included in this document.

Software Description

Medicine Data Portal is a data reporting tool designed by me and my team for our client — a large sized pharmaceutical company. Our client has several other pharmaceutical companies as their partners. The data portal helps communicate information and maintain records between our client company and their partners. It maintains records regarding three business reports used by the companies, namely: **Product Development Timeline** (PDT), Filing Plans and Sales Report. The Software Backend has two user roles, namely **Admin** and **Partner**.

Our main client can login to the portal as an Admin and add user accounts for respective partner companies. Partner companies are notified via email regarding their account creation with a link to Set Password for their account. Admin then adds a list of products and countries to the system and can assign different products and countries to their respective Partners. Product and Country List can also be imported from a csv file. Partners can then login to their newly created accounts, enter respective data for Product Development Timeline, Filing Plans and Sales Report and submit the report to Admin. Partners can also optionally send a personal message or comment to the Admin during report submission.

Admin gets notified regarding every partner's report submission via email. Admin can then choose to Edit, Approve or Reject the reports submitted by admin and optionally send a personal message to the Partner. Partners are notified of the Admin decision via email.

Admin has the privilege of viewing and downloading Consolidated PDT, Filing Plan and Sales Report of all the Approved Partners at once. Admin

is also given access to a customized dashboard which shows different summaries regarding all the partners and their reports and provides business insights regarding the sales of each Product by each Partner.

Technologies & Tools Used

- Frontend of the Data Portal is based on ReactJS and NodeJS and Redux has been used for consistent state behaviour.
- Backend of the Data Portal is based on **Django REST Framework** APIs.
- PostgresSQL has been used for database and AWS RDS has been used to create a cloud database server
- **Celery** and **Rabbitmq** have been used for Task Scheduling and automating tasks like sending emails or addition of a new quarter.
- Nginx and Gunicorn have been used for load balancing of the application and the application has been dockerized using Docker-Compose for easy, consistent and cross platform deployment on Cloud Virtual Machine instances.
- Sendgrid has been used for sending out official emails and Jenkins was used for CI/CD of the software.
- **Pytest** was also used in the initial phases for unit testing and functional testing of different software modules.
- Official version of the application has been hosted on AWS EC2 and my personal prototype has been hosted on my personal free tier Azure instance.

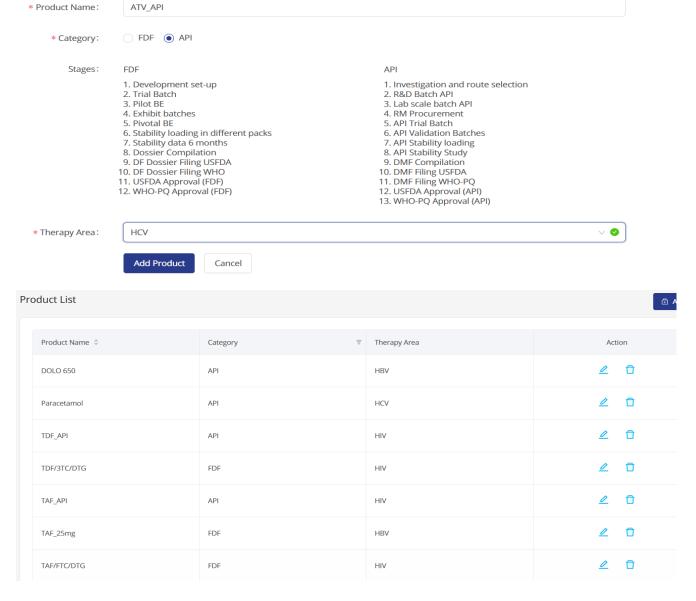
Usage

Admin can log in to the system using his credentials and Add Products to Product List.

Sample credentials for login on prototype (Prototype might be a bit slow as it is hosted on my free tier azure):

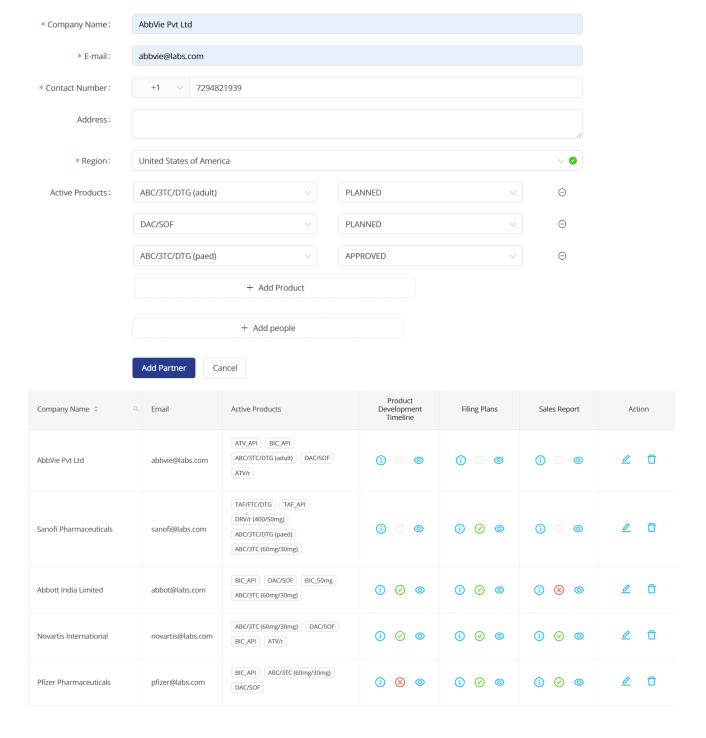
http://mpp-prototype.centralindia.cloudapp.azure.com

email: admin@mpp.com, password: samplepass123

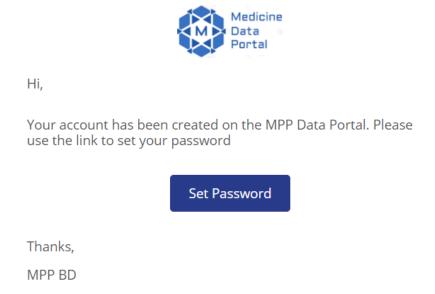


Admin also has the option to import products and countries from a csv file.

Admin can create user accounts for Partners by clicking Add Partner Button. Partners are assigned their respective countries and products that they own. Created Partners get added to Partner list.



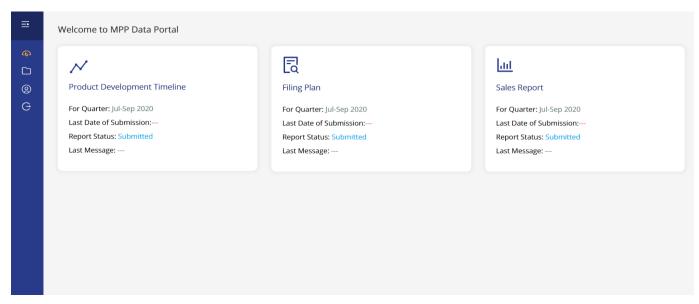
Partners are notified of their account creation by email with a link to Set Password for their account.



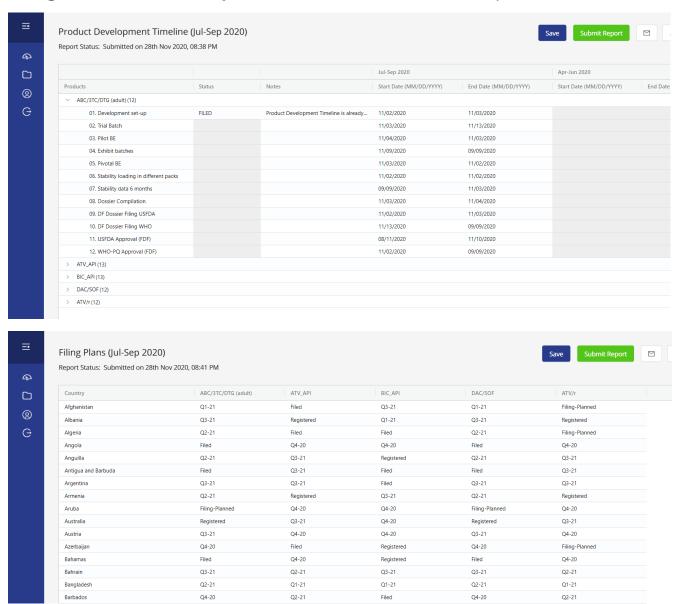
Partners can then log in to their account and check status of their three business reports on their dashboard.

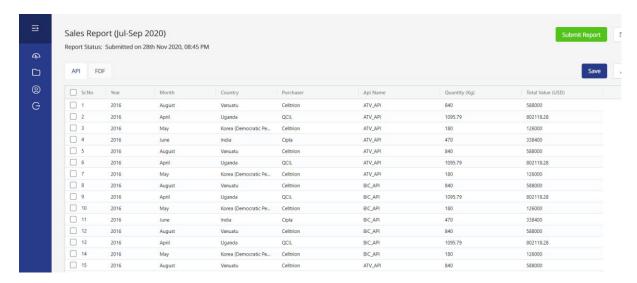
Sample Partner Credentials for prototype:

email: abbvie@labs.com, password: samplepass123



Partners can then enter the data for **Product Development Timeline**, **Filing Plan** and **Sales Report** and then click on Submit Report button.





On Partner Submission, an email is sent to the Admin regarding their submission



Hi,

Novartis international has submitted PDT Report on Nov. 27, 2020 at 4:32 a.m. for your review

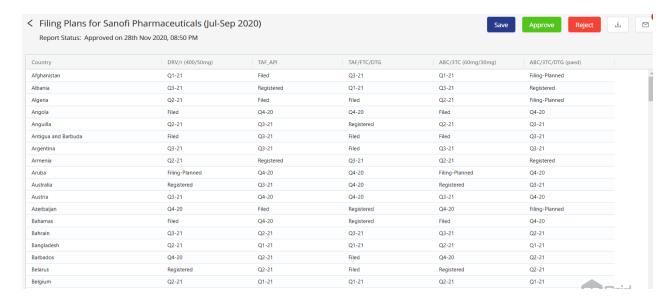
Open PDT Report

Thanks,

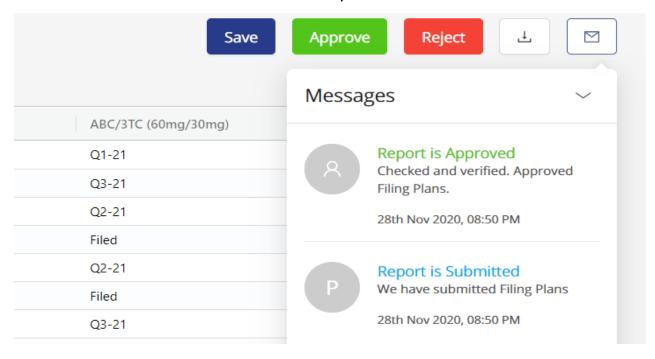
MPP BD

Admin can View, Edit, Approve or Reject the reports submitted by different partners

Company Name 🗘 🔍	Email	Active Products	Product Development Timeline	Development Filing Plans		Action	
AbbVie Pvt Ltd	abbvie@labs.com	ATV_API BIC_API (ABC/3TC/DTG (adult) DAC/SOF ATV/r	① O ©	① ○ ◎	① ○ ◎	<u> </u>	
Sanofi Pharmaceuticals	sanofi@labs.com	TAF/FTC/DTG TAF_API DRV/r (400/50mg) ABC/3TC/DTG (paed) ABC/3TC (60mg/30mg)	(i) ○ ⊚	① ⊘ ⊚	① ○ ◎	<u></u> 0	
Abbott India Limited	abbot@labs.com	BIC_API DAC/SOF BIC_50mg ABC/3TC (60mg/30mg)	(i) ⊘ ⊚	(i) ⊘ ⊚	① ⊗ ◎	<u> </u>	
Novartis International	novartis@labs.com	ABC/3TC (60mg/30mg) DAC/SOF BIC_API ATV/r	(i) ⊘ ⊚	(i) ⊘ ⊚	① ❷ ◎	<u> </u>	
Pfizer Pharmaceuticals	pfizer@labs.com	BIC_API ABC/3TC (60mg/30mg) DAC/SOF	(i) ⊗ ⊚	(1) ⊘ ⊚	(i) ⊘ ⊚	<u> </u>	



Other then emails, the messages exchanged between Admin and Partner can also be viewed in a chat box in the portal



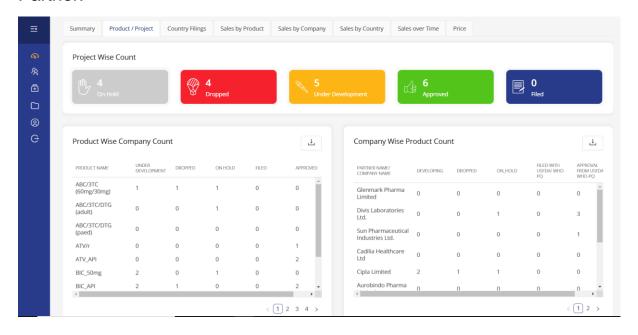
Admin has the feature of viewing and downloading consolidated reports of all the approved partners by partner name

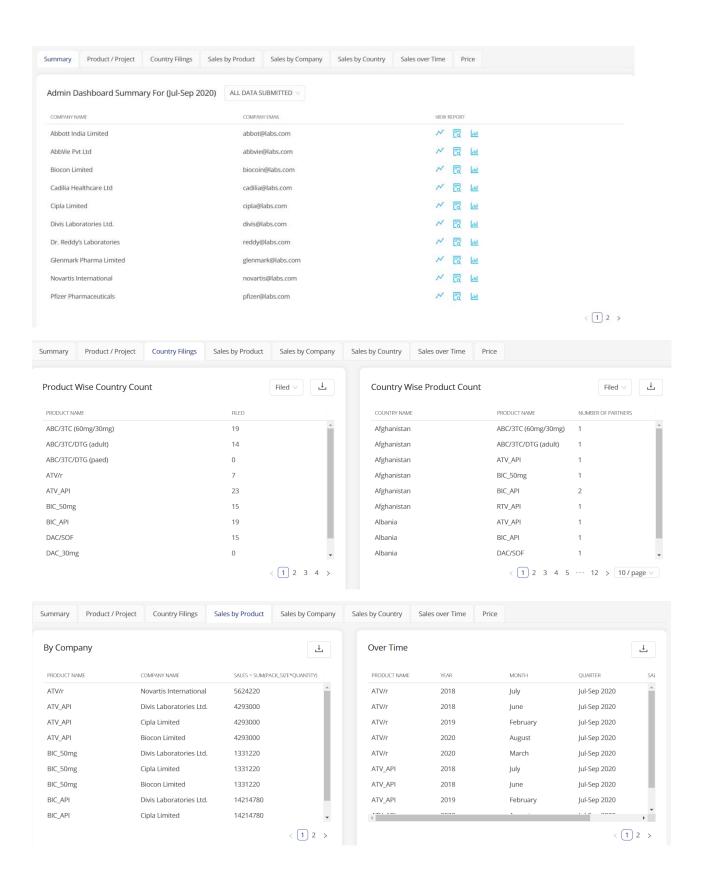
API FDF							<u></u>
Company Name	Year	Month	Country	Purchaser	Api Name	Quantity (Kg)	Total Value
Biocon Limited	2016	August	Vanuatu	Celltrion	ATV_API	840	588000
Biocon Limited	2016	April	Uganda	QCIL	ATV_API	1095.79	802118.28
Biocon Limited	2016	May	Korea (Democratic People's Republic of)	Celltrion	ATV_API	180	126000
Biocon Limited	2016	June	India	Cipla	ATV_API	470	338400
Biocon Limited	2016	August	Vanuatu	Celltrion	ATV_API	840	588000
Biocon Limited	2016	April	Uganda	QCIL	ATV_API	1095.79	802118.28
Biocon Limited	2016	May	Korea (Democratic People's Republic of)	Celltrion	ATV_API	180	126000
Cipla Limited	2017	January	Albania	Cipla	BIC_API	755	9993
Cipla Limited	2019	February	Albania	Eureka Pvt Ltd	BIC_API	300	4000
Cipla Limited	2016	August	Vanuatu	Celltrion	ATV_API	840	588000
Cipla Limited	2016	April	Uganda	QCIL	ATV_API	1095.79	802118.28
Cipla Limited	2016	May	Korea (Democratic People's Republic of)	Celltrion	ATV_API	180	126000

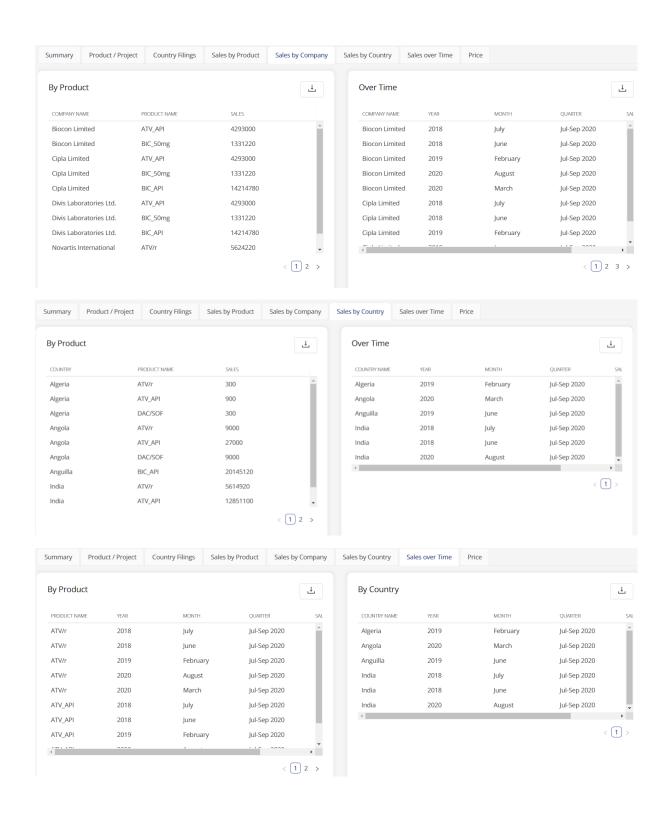
Company Name	Product	Stage	Status	Jul-Se	p 2020	Apr-Jun 2020	
сотграту магне	Floudet	Stage	Status	Start Date	End Date	Start Date	End Date
Aurobindo Pharma Limited	ABC/3TC/DTG (adult)	01. Development set-up	FILED	2020-08-10	2020-11-04		
Aurobindo Pharma Limited	ABC/3TC/DTG (adult)	02. Trial Batch	FILED	2020-11-13	2020-11-02		
Aurobindo Pharma Limited	ABC/3TC/DTG (adult)	03. Pilot BE	FILED	2020-11-03	2020-11-02		
Aurobindo Pharma Limited	ABC/3TC/DTG (adult)	04. Exhibit batches	FILED	2020-11-13	2020-09-09		
Aurobindo Pharma Limited	ABC/3TC/DTG (adult)	05. Pivotal BE	FILED	2020-11-13	2020-11-13		
Aurobindo Pharma Limited	ABC/3TC/DTG (adult)	06. Stability loading in different packs	FILED	2020-11-09	2020-11-02		
Aurobindo Pharma Limited	ABC/3TC/DTG (adult)	07. Stability data 6 months	FILED	2020-09-09	2020-11-13		
Aurobindo Pharma Limited	ABC/3TC/DTG (adult)	08. Dossier Compilation	FILED	2020-09-09	2020-11-13		
Aurobindo Pharma Limited	ABC/3TC/DTG (adult)	09. DF Dossier Filing USFDA	FILED	2020-11-02	2020-11-03		
Aurobindo Pharma Limited	ABC/3TC/DTG (adult)	10. DF Dossier Filing WHO	FILED	2020-09-09	2020-11-10		
Aurobindo Pharma Limited	ABC/3TC/DTG (adult)	11. USFDA Approval (FDF)	FILED	2020-09-09	2020-11-04		
Aurobindo Pharma Limited	ABC/3TC/DTG (adult)	12. WHO-PQ Approval (FDF)	FILED	2020-09-09	2020-11-03		
Aurobindo Pharma Limited	ATV_API	01. Investigation and route selection	DROPPED	2020-11-04	2020-11-02		
Aurobindo Pharma Limited	ATV_API	02. R&D Batch API	DROPPED	2020-11-13	2020-11-13		
A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	177.101	00 1 1 1 1 1 1 10	0000000	2020 00 00	2020 00 44		

Company Name	Country	ABC/3TC (60mg/30mg)	ABC/3TC/DTG (adult)	ABC/3TC/DTG (paed)	ATV/r	ATV_API	BIC_50mg	BIC_API	DAC/SOF	DAC_30n
Abbott India Limited	Afghanistan	Q1-21					Filing-Planned	Filed	Registered	
Abbott India Limited	Albania	Q4-20					Filing-Planned	Filed	Registered	
Abbott India Limited	Algeria	Filing-Planned					Filing-Planned	Registered	Q1-21	
Abbott India Limited	Angola	Registered					Q1-21	Q1-21	Registered	
Abbott India Limited	Anguilla	Registered					Q1-21	Q1-21	Filing-Planned	
Abbott India Limited	Antigua And Barbuda	Q3-21					Q3-21	Q1-21	Filing-Planned	
Abbott India Limited	Argentina	Q2-21					Filed	Registered	Filing-Planned	
Abbott India Limited	Armenia	Filing-Planned					Q1-21	Q3-21	Q4-20	
Abbott India Limited	Aruba	Q1-21					Registered	Filed	Q1-21	
Abbott India Limited	Australia	Registered					Filed	Q4-20	Q2-21	
Abbott India Limited	Austria	Q1-21					Q1-21	Registered	Q1-21	

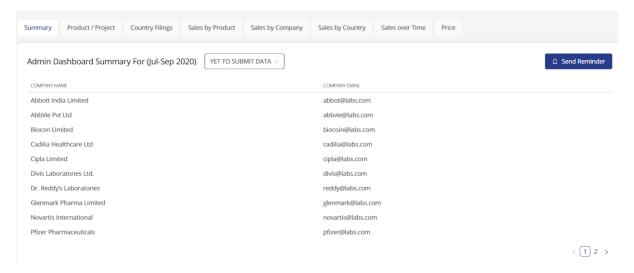
Admin is also given access to a customized dashboard which shows different summaries regarding all the partners and their reports and provides business insights regarding the sales of each Product by each Partner.







Admin can also send reminder mails to partners who haven't submitted their data



All the reports, tables and dashboard summaries are automatically refreshed and reset after every new quarter with respect to the four quarters in a year. This process has been automated using celery and rabbitmq.