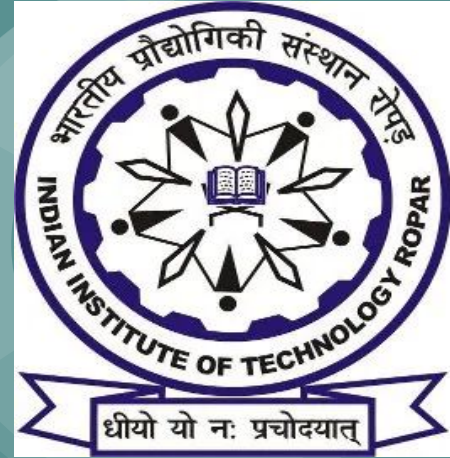


CP 301: 22x7 dashboard

Beneficiary: DC Office, Ropar



Dept. of Computer Science and Engineering

Group: A7

Sparsh Agarwal (2018CSB1126)

Arnav Bansal (2018CSB1075)

Mentor: Dr. Puneet Goyal

Daksh Sharma (2018CSB1082)

Ritvik (2018CSB1115)



Problem Statement

- To develop a web-based dashboard where all the data management, visualization, and storage needs of the DC Office can be taken care of
- Should have the ability to upload spreadsheets
- Data visualization of the uploaded data in the form of various graphs must be possible
- Data can come in various types, like healthcare, taxation, government policies, agriculture etc. Hence, the dashboard has to have a separate provision for them



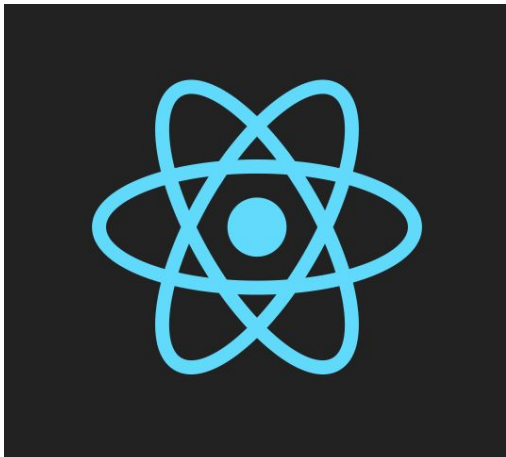
Challenges currently faced by the beneficiaries

- The Employees at the DC Office currently have to maintain a large number of spreadsheets to keep track of data for various departments of the district
- It is difficult to manually map such a large amount of data into a visually understandable format (graphs)
- With the 2nd wave of COVID-19, the employees are facing a difficulty in maintaining multiple and analysing multiple spreadsheets
- Without any visual representation, it becomes difficult to easily understand and compare the data



Technologies used

React is an open-source front-end JavaScript library for building user interfaces or UI components. It is the base of the frontend of our application



React JS

Libraries Used with React

The logo for Ant Design, featuring the text "Ant Design" in a bold, dark blue sans-serif font. A small red dot is positioned above the letter 'i' in "Design". The text is set against a light blue rectangular background.

Ant Design

- Library that includes many pre-built reusable components



Chart.js

- Library Used for creating all the charts used in the application



Technologies used

Django is a Python-based free and open-source web framework that follows the model-template-views architectural pattern. Under Django we have used REST framework to create the APIs as required by the frontend. REST is a loosely defined protocol for listing, creating, changing, and deleting data on your server over HTTP





Login And Sign-Up Pages



22x7 Dashboard



Log in to use the website

Email

Password

[Don't have an account ? Create here](#)

LOGIN



Sign Up to use the website

Name

Email

District

Password

Confirm Password

[Already have an account ? Login here](#)

Sign Up



Homepage



Two Main sections, General Administration and Covid-19



Side-Bar



- Made for easier navigation inside the application
- Present in every page and takes the user to the desired page with a single button click
- Also contains a button, which can be used to logout of the application whenever needed




General Administration Dashboard

₹ [Revenue](#)

 Court

 Healthcare

 Drug Abuse

 Smart Ration

Data Type

District

From

To

Collection of Excise

Amritsar

January

2021

January

2021

GO

Reset

Revenue Collection in 2020

₹ 20,18,30,670

Revenue Collection in 2021

₹ 5,46,68,640

Expected Collection in 2021

₹ 21,02,64,000

Percentage collected so far

 26%



General Administration Dashboard

- Various tabs present under General Administration for easy navigation across different data types



- Important data displayed under each data tab as highlights



- Search for data relevant to you via various filters

From To

January 2020 August 2021



Search Query Output

Data Type

District

From

To

Civil Court

Ropar

January

2021

October

2021

GO

Reset

Table

BarChart

Linechart

Piechart

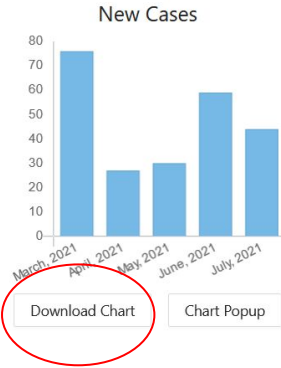
Civil Court

District	New Cases	Cases Closed	Month	Year
Ropar	76	33	3	2021
Ropar	27	10	4	2021
Ropar	30	43	5	2021
Ropar	59	12	6	2021
Ropar	44	25	7	2021

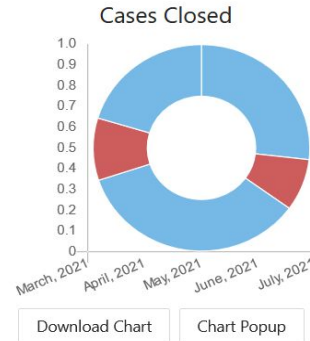
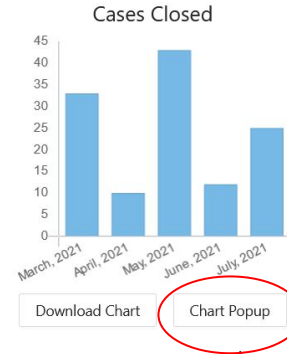
< 1 >

The data is updated monthly, so please wait for current data

- Query Output results in a table, containing relevant data
- Four choosable options - Table, BarChart, LineChart, Pie-Chart
- The Charts show visual representation of each column in the table



Download button



- Each graph has a download button which can be used to download the graph as a .png file
- Chart Popup button shows the graph in a popped up Modal (better for viewing charts with many data points)



Covid-19 Dashboard



Contact Tracing



Covid Positivity



Deaths

From

To

District and Sub-Division

Search

dd/mm/yyyy

dd/mm/yyyy

Ropar

Ropar

GO

Reset

Total Contacts Traced in last Month

📈 29,230

Total Positive Cases Traced in Last Month

⚠️ 2,460

Percentage of Contacts Traced

📈 88.3%

Average Contacts per Case

📈 22.5

Upload page for spreadsheets

- Select the type of data you want to update via the drop down menu
- A sample of the format of the sheet that is to be strictly followed has been shown

Upload Excel (.Csv) File Here:

Data Type
Revenue Collection of Excise

Sample .CSV File:

district	collection	month	year
chd	19	4	2021
chd	52	5	2021

Please ensure that the first row of the document contains the Column names.
The following rows should contain the data as specified in the sample image.
Make sure there aren't any other columns filled in the document.

Upload .CSV File
Browse... No file selected.

File Format: .csv, Maximum file size: 25mb

SUBMIT

district	collection	month	year
chd	19	4	2021
chd	52	5	2021



The Database

Here are our tables as stored in our database via mySQL.

Below is an example of how data is stored in individual tables.

<input type="checkbox"/>	civil_court	★	Browse	Structure
<input type="checkbox"/>	contact_tracing	★	Browse	Structure
<input type="checkbox"/>	covid	★	Browse	Structure
<input type="checkbox"/>	criminal_court	★	Browse	Structure
<input type="checkbox"/>	distribution_of_atta	★	Browse	Structure
<input type="checkbox"/>	distribution_of_dal	★	Browse	Structure
<input type="checkbox"/>	enforcement_of_drug_measures	★	Browse	Structure
<input type="checkbox"/>	excise_duty_tax	★	Browse	Structure
<input type="checkbox"/>	gst	★	Browse	Structure
<input type="checkbox"/>	motor_vehicle_tax	★	Browse	Structure
<input type="checkbox"/>	positivity_report	★	Browse	Structure
<input type="checkbox"/>	rehabilitation	★	Browse	Structure
<input type="checkbox"/>	stamp_duty	★	Browse	Structure
<input type="checkbox"/>	upgradation_of_infrastructure	★	Browse	Structure
<input type="checkbox"/>	vaccination_data	★	Browse	Structure

	▼ District	GST Collected	GST Target	VAT Collected	VAT Target	Month	Year
Delete	Ropar	100	130	120	150	2	2021
Delete	Ropar	220	250	200	230	3	2021

AUTHENTICATION AND AUTHORIZATION

[Groups](#) [+ Add](#)[Users](#) [+ Add](#)

Select user to change

[ADD USER](#) [+](#)[Search](#)

Action:

[Go](#)

0 of 8 selected



USERNAME

EMAIL ADDRESS

FIRST NAME

LAST NAME

STAFF STATUS



abc@g.com



FILTER

By staff status

[All](#)[Yes](#)[No](#)

Used In-Built Django User-authentication models as it satisfied the use-case perfectly and allowed for faster development

django



Individual Contributions

Sparsh Agarwal (2018CSB1126) :-

- Route Handling and Route Protection on Front-End
- Backend to Frontend integration to make the application truly dynamic
- Component-to-Component connection for correct flow of data
- Created Sidebar and some other components

Daksh Sharma (2018CSB1082) :-

- Added CSS Styling to make components look visually appealing
- Created the layout of most of the application's web pages
- Added Design changes to all of application webpages

Ritvik (2018CSB1115) and

Arnav (2018CSB1075):

- Worked on the entire backend
- Designing and setting up of the entire database via MySQL
- Created various Django REST endpoints for the API in the backend for the frontend to access
- Set up important functions such as parsing and storing the CSV file received from the user
- Created and processed different queries according to the filters selected by the user