



STGI

**TEAM
WEBSTERS**

TEAM LEADER : HARSH GOYAL



TEAM MEMBERS

01	HARSH GOYAL	TECH
02	DOLFY	TECH
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04	SUKHWINDER KAUR	NON - TECH
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PROBLEM STATEMENT



DATA ANALYSIS USING DJANGO

KEY POINTS :

- 1.Download H1B Data (2016 - 2019)
- 2.Convert Data to CSV file.
- 3.Ingest data into PostgreSQL
- 4.Create aa Django app-Based API
- 5.Data Analysis
- 6.Performance Measurement



PROPOSED SOLUTION

Mission



Data Sources:

Identify the sources of your data, which could include databases, external APIs, or file uploads.

Django Models:

Create Django models to represent your data. Define the fields and relationships necessary for analysis.

Vision



- Django REST framework:

Use Django REST framework to build APIs for data retrieval and manipulation.

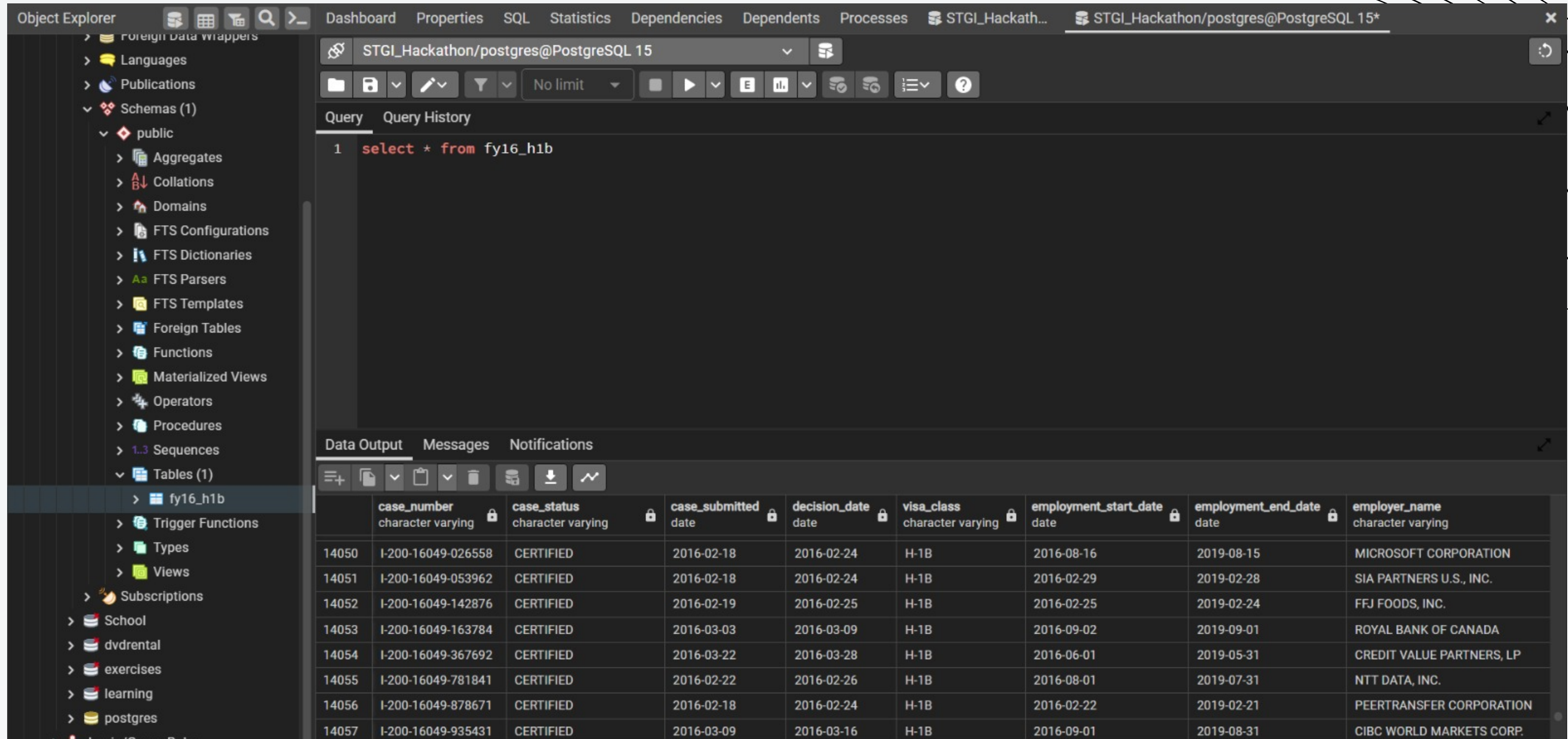
- API Endpoints:

Define endpoints for various data analysis operations, such as filtering, aggregation, and sorting.

- Custom Analysis Functions:

Write custom Python functions within your Django app for data analysis.

IMPORTING DATA TO POSTGRESQL



The screenshot displays a PostgreSQL client interface with a dark theme. On the left, the 'Object Explorer' pane shows the database structure, including 'Schemas (1)' and 'public' schema with various objects like 'Aggregates', 'Collations', 'Domains', 'FTS Configurations', 'FTS Dictionaries', 'FTS Parsers', 'FTS Templates', 'Foreign Tables', 'Functions', 'Materialized Views', 'Operators', 'Procedures', 'Sequences', and 'Tables (1)'. The 'fy16_h1b' table is selected under 'Tables (1)'. The main query editor shows the query: `1 select * from fy16_h1b`. Below the query editor, the 'Data Output' pane displays the results of the query in a table format. The table has 9 columns: 'case_number', 'case_status', 'case_submitted', 'decision_date', 'visa_class', 'employment_start_date', 'employment_end_date', and 'employer_name'. The results show 7 rows of data, all with 'CERTIFIED' status and 'H-1B' visa class.

	case_number character varying	case_status character varying	case_submitted date	decision_date date	visa_class character varying	employment_start_date date	employment_end_date date	employer_name character varying
14050	I-200-16049-026558	CERTIFIED	2016-02-18	2016-02-24	H-1B	2016-08-16	2019-08-15	MICROSOFT CORPORATION
14051	I-200-16049-053962	CERTIFIED	2016-02-18	2016-02-24	H-1B	2016-02-29	2019-02-28	SIA PARTNERS U.S., INC.
14052	I-200-16049-142876	CERTIFIED	2016-02-19	2016-02-25	H-1B	2016-02-25	2019-02-24	FFJ FOODS, INC.
14053	I-200-16049-163784	CERTIFIED	2016-03-03	2016-03-09	H-1B	2016-09-02	2019-09-01	ROYAL BANK OF CANADA
14054	I-200-16049-367692	CERTIFIED	2016-03-22	2016-03-28	H-1B	2016-06-01	2019-05-31	CREDIT VALUE PARTNERS, LP
14055	I-200-16049-781841	CERTIFIED	2016-02-22	2016-02-26	H-1B	2016-08-01	2019-07-31	NTT DATA, INC.
14056	I-200-16049-878671	CERTIFIED	2016-02-18	2016-02-24	H-1B	2016-02-22	2019-02-21	PEERTRANSFER CORPORATION
14057	I-200-16049-935431	CERTIFIED	2016-03-09	2016-03-16	H-1B	2016-09-01	2019-08-31	CIBC WORLD MARKETS CORP.

DATA ANALYSIS USING DJANGO

Data Collection and Management:

Django can be used to build web applications that collect and store data. You can create forms and APIs to capture data from users or external sources and save it to a database for analysis.

Data Visualization:

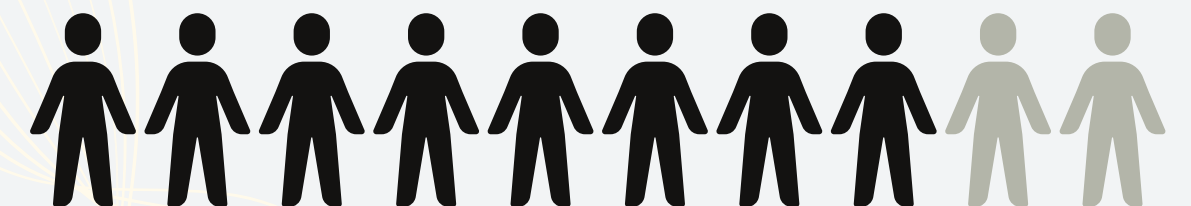
Django can be used in combination with data visualization libraries like Matplotlib, Plotly, or Bokeh to display data in the form of charts and graphs. You can build web-based dashboards and reporting tools to present the results of data analysis.

API Development:

You can build RESTful APIs with Django, which is useful for serving data to other data analysis tools or clients, such as data science libraries and applications.

Framework for Data Analysis Applications:

You can build custom data analysis applications using Django as a backend framework. These applications can include features like data uploading, processing, visualization, and sharing, all within a unified platform.



THANK YOU !!!



LARANA, INC.