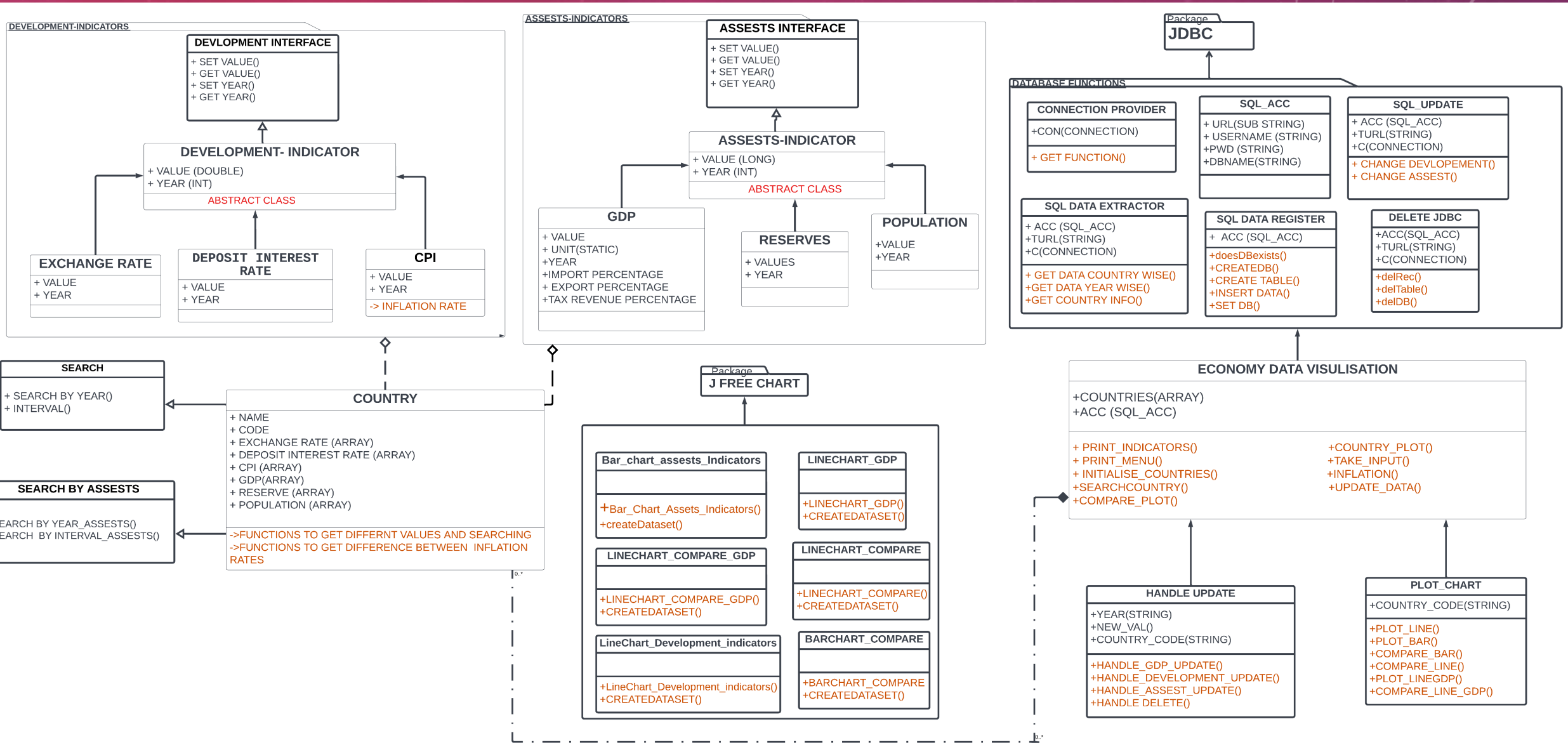
ECONOMY DATA VISUALIZATION

A TOOL TO VISUALIZE THE ECONOMY

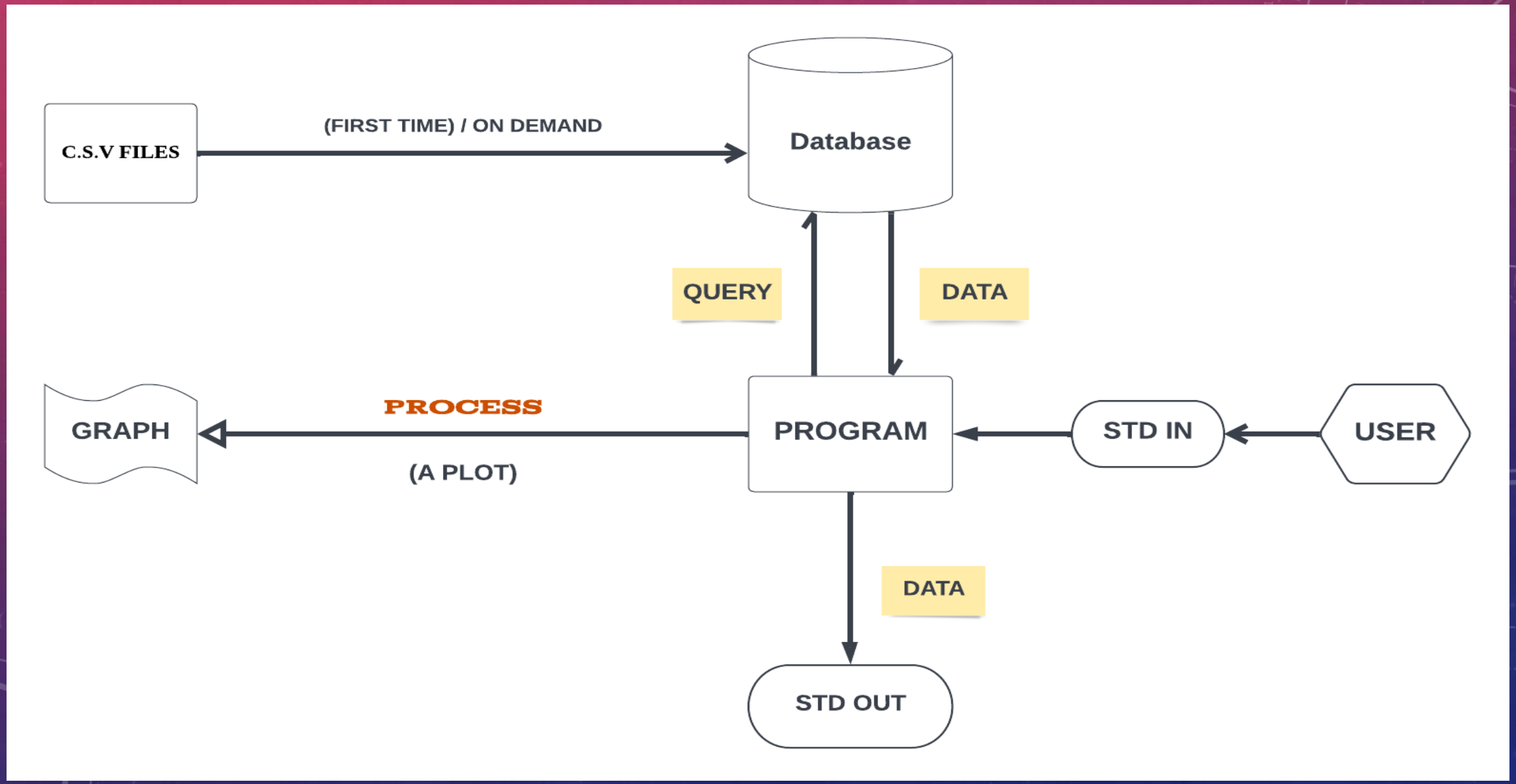
OBJECTIVE

- The main objective of this project is to create a software which can explain the complex parameters of economy to normal people easily using data visualization technology.
- This project will have many function to compare data of different economies as well as of different era.
- Apart from visualization this project will have many functions to add, delete and modify data.

UML DIAGRAM OF PROJECT



WORKING OF PROGRAM



TEAM MEMBERS AND THEIR ROLES

*1)*AARAV NIGAM **(S20210010002)**

→ **Schema Structuring,**

- I designed the whole structure of the Project for proper and smooth functioning.
- I distributed specific roles to each collaborator so that we always work in sync.

→ **Implementing The UI Classes,**

- I implemented the classes which make User Interaction easy and smooth. It includes the following classes:
  a)Economy Data visualization Class,
  b) Plot Chart Class,
  c)Handle Update Class.

→ **Integrating ,**

- Our project was divided in 3 things:
  a)Database Handling
  b)Graph Plotting
  c)Objects with Functions to handle data

---My main purpose was to integrate all these 3 sections so that these different subdomains can work together in sync.

2) PARTH BHANDARI (S20210010170)

→ GRAPH PLOTTING SCHEMA,

- Using Jfree chart and Swing for implementing Bar graph and Line chart.
- Modifying Dataset to implement comparisons.
- Implementing the graph plots for Import, Export, and Tax revenue for a specific GDP.
- Updating the plot name and description on the basis of provided data.

→ GENERIC CLASS IMPLEMENTATION,

-Problems faced in typecasting subclass as superclass (in method parameter).
- Solution of above problem using Generic classes(Wildcards).

3) PRATYUSH SINGH (S20210010183)

→ **Handling Database Implementation,**

- My work was establishing a connection between our project and MySQL and managing DB credentials.
- Creation of DB schema and Tables with all the necessary columns.

→ **Handling Data Import from CSV files,**

- Inserting data from CSV FILES using Prepared Statement Class.
- It also involved extracting data from MySQL in all necessary formats required by other team members to work with.

→ **Implementing Functions to Update Data**

- Updating Classes and DB tables.

4) Mohd. Rizwan (S20210010150)

→ **Managing Packages,**

- Made two Packages Assets Indicators And development Indicators. These are some parameters which determine country economy.
- Made Three Interfaces and Implementing in a different packages.

→ **Creating major Classes and Functions,**

- Made Two Abstract Classes; one in Asset Indicator and other in Development Indicator packages.
- Made a Country Class by using Object Composition .
- Typecasting of a variable.

5)Rathod Harshan (S20210010189)

→Cleaning CSV,

- The CSV files downloaded from world bank website contains lots of unnecessary data, removing them is a very important step for proper database implementation.

→Assets Indicator,

- I wrote the code of Assets Indicator package that holds data with long values and I helped in writing its respective functions.

→Deletion From Database,

- Made a delete function to implement JDBC which can delete records, tables, and databases.

→Presentation Preparation,

- I made the presentation with all the flowcharts for better understanding for the user.