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Classes and their functionalities

## -> DBLP\_Query\_Engine

This is the main class. The program will initiate its lifecycle from this point. An object of class GUI will be called inside this (constructor). This would provide a user-friendly interface.

#### -> GUI

This contains the various frames that are required for the GUI to take effect. This contains the frame for the original layout and the query1, query2, query3 related frames are traversed through layout manager (card layout).

### -> Parser

This uses the SAX method to parse throughout the X ML file in fragments. This then pushes the object of publication type in a map/arraylist.

## -> Query1

This is searching for the database for articles/wwww/com. based on author/title and can also sort on the basis of year, in between etc

# -> Query2

This parses the xml again and then displays the top K results based on author.

## -> Query3

Predicts the number of papers next year following t rend.

#### -> Person

Contains details of the author of the paper including the task of Entity Resolution where we differentiate authors of same name.

### -> Publication

Encapsulates the parts of the xml which are tagged "author", "title", etc into object.

# -> Exception

List of all exceptions which can be thrown such as invalid input, lack of memory, no reult found, et c.

