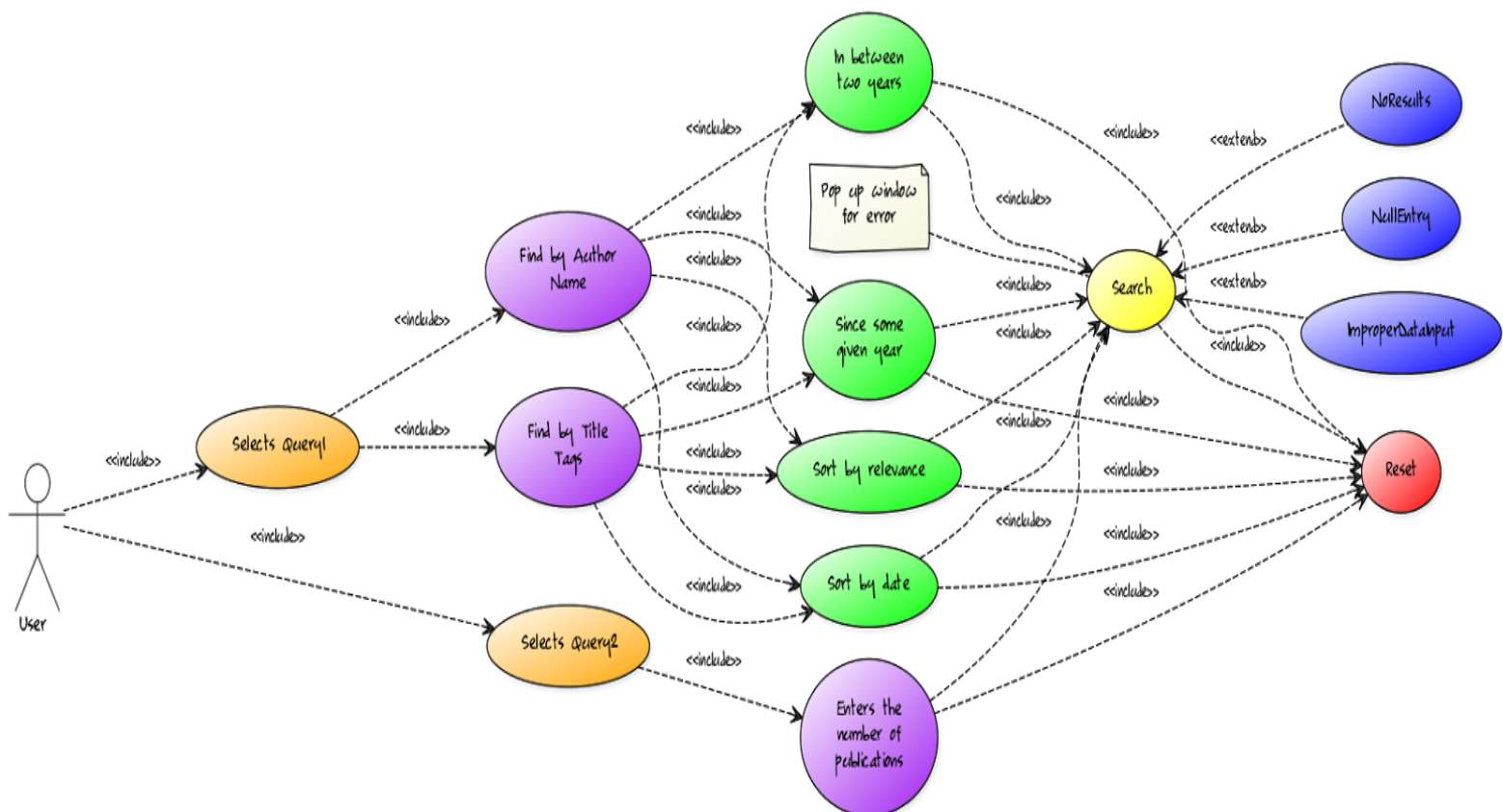


PROJECT REPORT

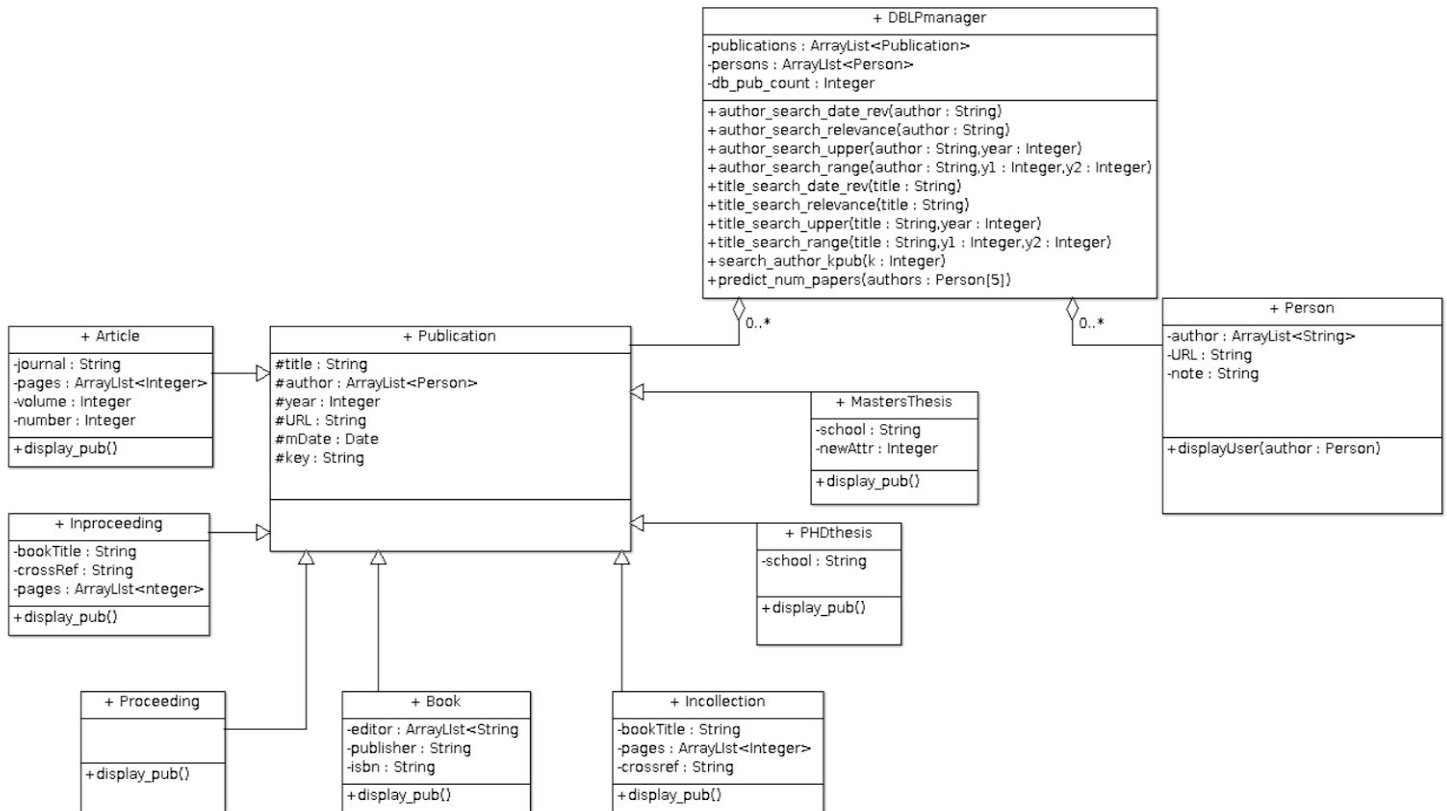
DBLP Query Engine

Mrinal Abrol(2015062)
Shashwat Malik(2015092)

Use Case Diagram



Class Diagram



Person

Attributes:

- 1) author - List of author names ([primary_names, secondary_names ...]
- 2) URL - link to author's home page
- 3) note - additional information about the author

Methods:

- 1) displayUser() - like a toString function, prints userdetails

Publication

Attributes:

- 1) Title - String field
 - 2) Author - List of authors associated with publication
 - 3) Year - year of publication
 - 4) URL - link to publication
 - 5) mDate - Last modified date
 - 6) Key - unique database key
- Seven classes extend Publication Class that correspond to the seven different type of publications and each have their specific attributes and a display_pub() function that acts as a toString function

DBLPmanager

Attributes:

- 1) publications - an ArrayList of Publication Class
- 2) persons - an ArrayList of Person Class
- 3) db_pub_count - total count of publications in database

Methods:

Query 1:

- 1) author_search_date_rev() - search and sort acc. to reverse date
- 2) author_search_relevance() - search and sort acc. to relevance
- 3) author_search_upper() - search with upper year bound
- 4) author_search_range() - search within time range

- 5) title_search_date_rev() - search and sort acc. to reverse date
- 6) title_search_relevance() - search and sort acc. to relevance
- 7) title_search_upper() - search with upper year bound
- 8) title_search_range() - search within time range

Query 2:

- 1) search_author_kpub() - returns authors with more than k publications

Query 3:

- 1) predict_num_papers() - try to predict number of publications for given 5 authors

Note:- The above class diagram doesn't cover the GUI and error handling classes because those are subject to change with implementation.