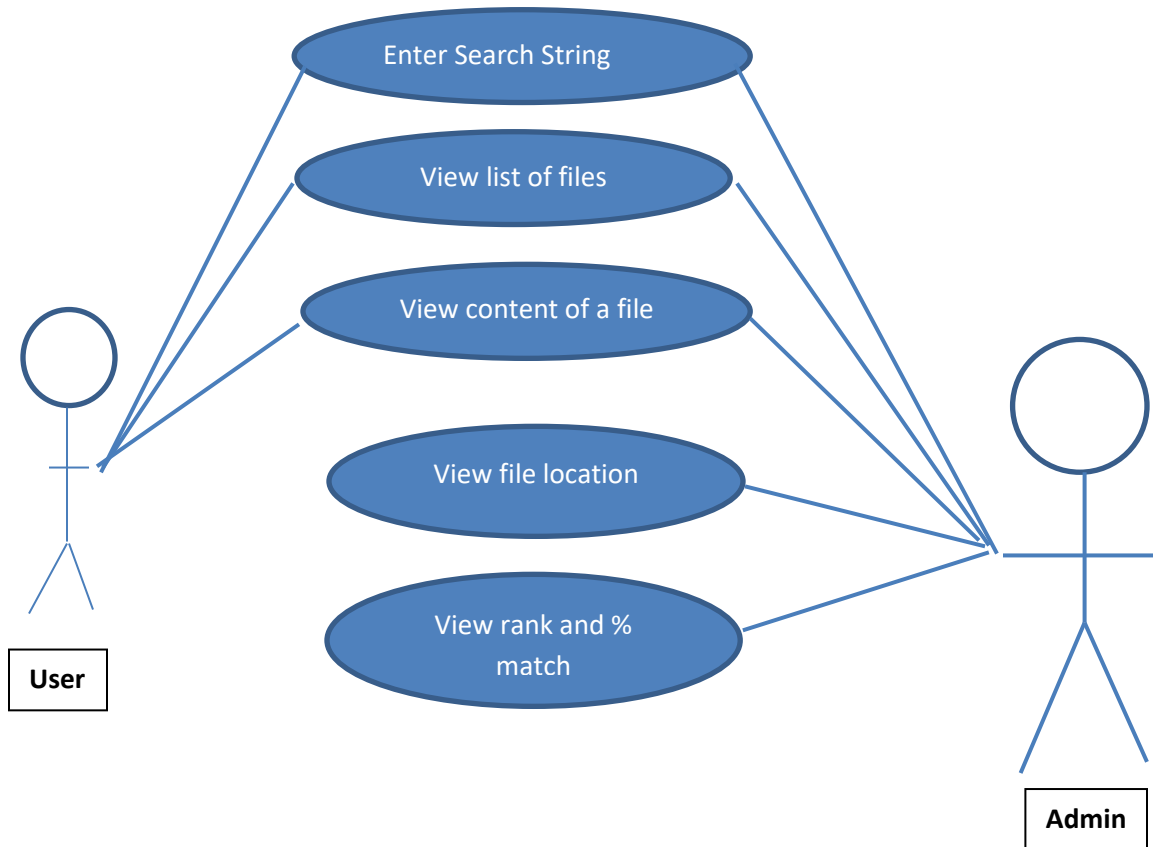


FILE SEARCH ENGINE

OBJECTIVE: To create a user friendly File Search Engine using following functionalities:

- **Input:** String with maximum 200 characters.
- **Output:** List of files (file name only) in your system that contains this string keyword and an open **button** that follows file name [show best match files first based on ranking, if rank same then follow %match]. Once user clicks open button for a file, display content of that particular file.
[Output constraint: If two files have same name but present in different directories then show both files as there % match/content/rank may vary]
- For each search entry generate a random ID and store this search input in your database. Store all the matched files' location along with % match and rank in your database.
- **Assign a rank value 1(for the first time) to the file that user chooses or opens at the search engine page.** If the rank of file is already 1 for the search keyword then increase the rank for the subsequent opens.
- If your table in the database is not created yet (i.e. it's a first search query) then search for the **keyword** in all directories (c drive, d drive etc.) in your system. Inside each drive there will be multiple sub directories. You need to look inside each subdirectory and check whether any file contains the keyword or not. [Hint: for each folder create a new **thread** that will look into each file, parallel searching efficient than sequential searching.]
- If table is created then first look for the keyword in the database, if available then display the list of files, % match and rank value for each file. **[Note: default rank value=0, here rank indicates number of access for that file at your search engine page]**
- If keyword is not available in the database table then again do a search in all directories and store the keyword entry into database.
- If search string does not matches with any file data then display appropriate message.

USE CASE:



TOPICS COVERED IN PROJECT:

- String Handling
- Exception Handling
- Collections Framework
- Swing and AWT
- Event Handling
- File Handling
- Database handling in java
- Multi-threading