MongoDB Regular Expression (Regex)

Regular expressions are used for pattern matching, which is basically for findings strings within documents.

Sometimes when retrieving documents in a collection, you may not know exactly what the exact Field value to search for. Hence, one can use regular expressions to assist in retrieving data based on pattern matching search values.

Let's assume that we have our same Employee collection which has the Field names of "Employeeid" and "EmployeeName". Let' also assume that we have the following documents in our collection.

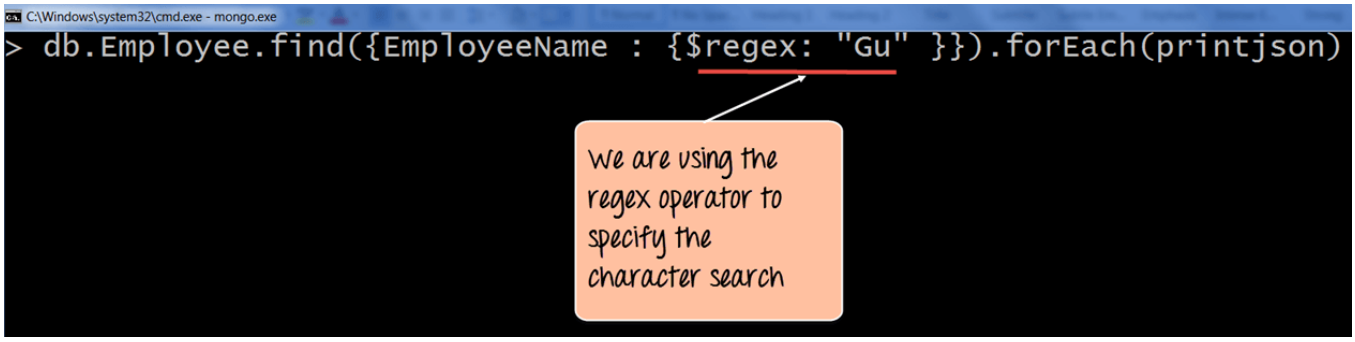
Employee id	Employee Name
22	NewMartin
2	Mohan
3	Joe
4	MohanR
100	Guru99
6	Gurang

Here in the below code we have used regex operator to specify the search criteria

Using $regex operator for Pattern matching

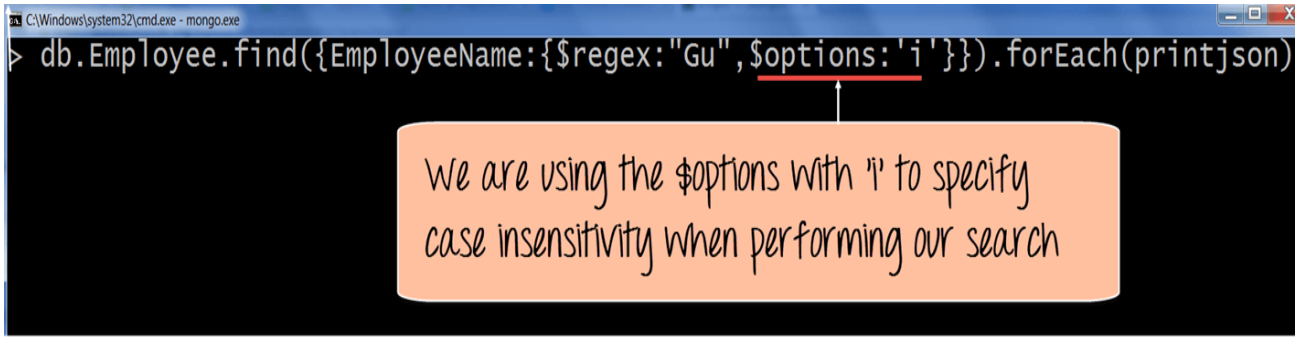
- The regex operator in MongoDB is used to search for specific strings in the collection. The following example shows how this can be done.
- Let's assume that we have our same Employee collection which has the Field names of "Employeeid" and "EmployeeName". Let' also assume that we have the following documents in our collection.

- Here in the below code we have used regex operator to specify the search criteria.



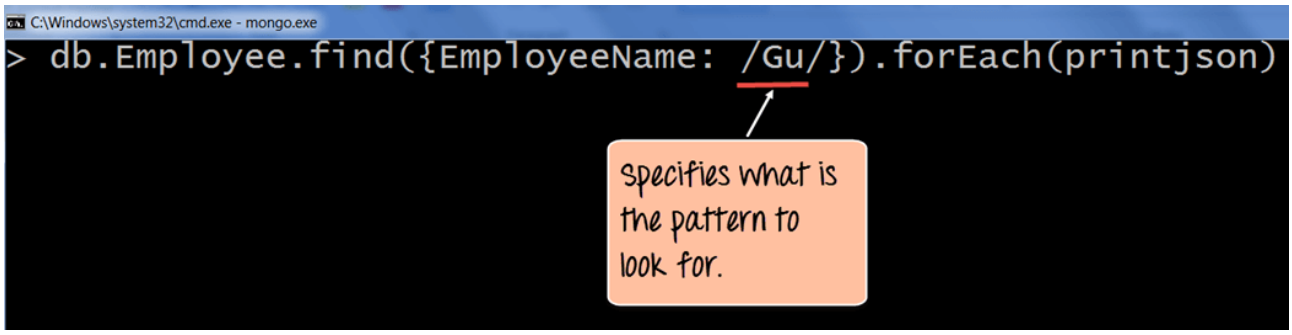
Pattern Matching with $options

- When using the regex operator one can also provide additional options by using the **$options** keyword. For example, suppose you wanted to find all the documents which had 'Gu' in their Employee Name, irrespective of whether it was case sensitive or insensitive. If such a result is desired, then we need to use the **$options** with case insensitivity parameter.
- The following example shows how this can be done.
- Let's assume that we have our same Employee collection which has the Field names of "Employeeid" and "EmployeeName".



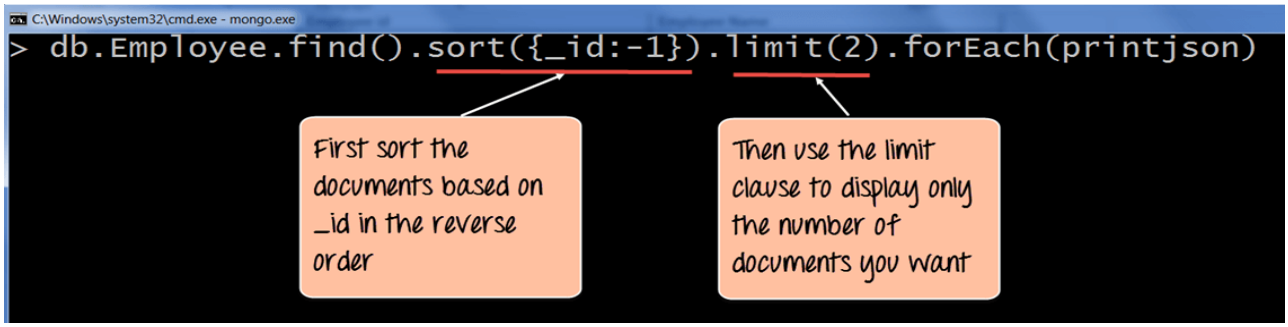
Pattern matching without the regex operator

- One can also do pattern matching without the regex operator. The following example shows how this can be done.



Fetching last 'n' documents from a collection

- There are various ways to get the last n documents in a collection.
- Let's assume that we have our same Employee collection which has the Field names of "Employeeid" and "EmployeeName".



Summary:

- Pattern matching can be achieved by the $regex operator. This operator can be used to find for certain strings in the collection.
- The ^ and $ symbol can be used for exact text searches with ^ being used to make sure that the string starts with a certain character and $ used to ensure that the string ends with a certain character.

- The 'i' along with the $regex operator can be used to specify case insensitivity so that strings can be searched whether they are in lower case or upper case.
- The delimiters // can also be used for pattern matching.
- Use a combination of sort and the limit function to return the last n documents in the collection. The sort function can be used to return the documents in descending order after which the limit clause can be used to limit the number of documents being returned.