A close-up of a card

Description automatically generated

1. Logical View of DB

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Term Table | |  | Index | |  | Documents | |  |  | Category | |
| PK | Term: text |  | PFK | Term: text |  | PK | Doc\_id: integer |  | | PK | id: int |
|  | Num\_chars: int |  | Doc\_id: int |  |  | Text: text |  |  |  | Name: text |
|  |  |  |  | Count: int |  | Title: text |  |  |  |  |
|  |  |  |  |  |  |  | Num\_chars: int |  |  |  |  |
|  |  |  |  |  |  | FK | Date: text  Category\_id: int |  |  |  |  |

1:N N:1 N:1

2a. SELECT COUNT(\*) FROM Documents

2b. SELECT COUNT(\*) FROM Documents JOIN Category ON Documents.category \_id = Category.id WHERE Category.name = “Sports”

2c. SELECT DISTINCT count(Term) FROM Index

2d. SELECT COUNT(\*) FROM Index JOIN Documents ON Index.Doc\_id = Documents.Doc\_id WHERE Documents.title = “Arizona”

2e. SELECT COUNT(\*) FROM Index JOIN Documents ON Index.Doc\_id = Documents.Doc\_id JOIN Category ON Documents.category\_id = Category.id WHERE Category.name = “Seasons”

2f. SELECT SUM(count) FROM Index WHERE term = “months”

2g. SELECT Documents.title, SUM(Index.count) FROM Index JOIN Documents ON Index.Doc\_id = Documents.Doc\_id HAVING MAX(SUM(Index.count)) WHERE Index.Doc\_id = Documents.Doc\_id

2h. SELECT Index.term, SUM(Index.count) FROM Index JOIN Documents ON Index.Doc\_id = Documents.Doc\_id WHERE Index.Doc\_id = Documents.Doc\_id HAVING MAX(SUM(Index.count))

3a.