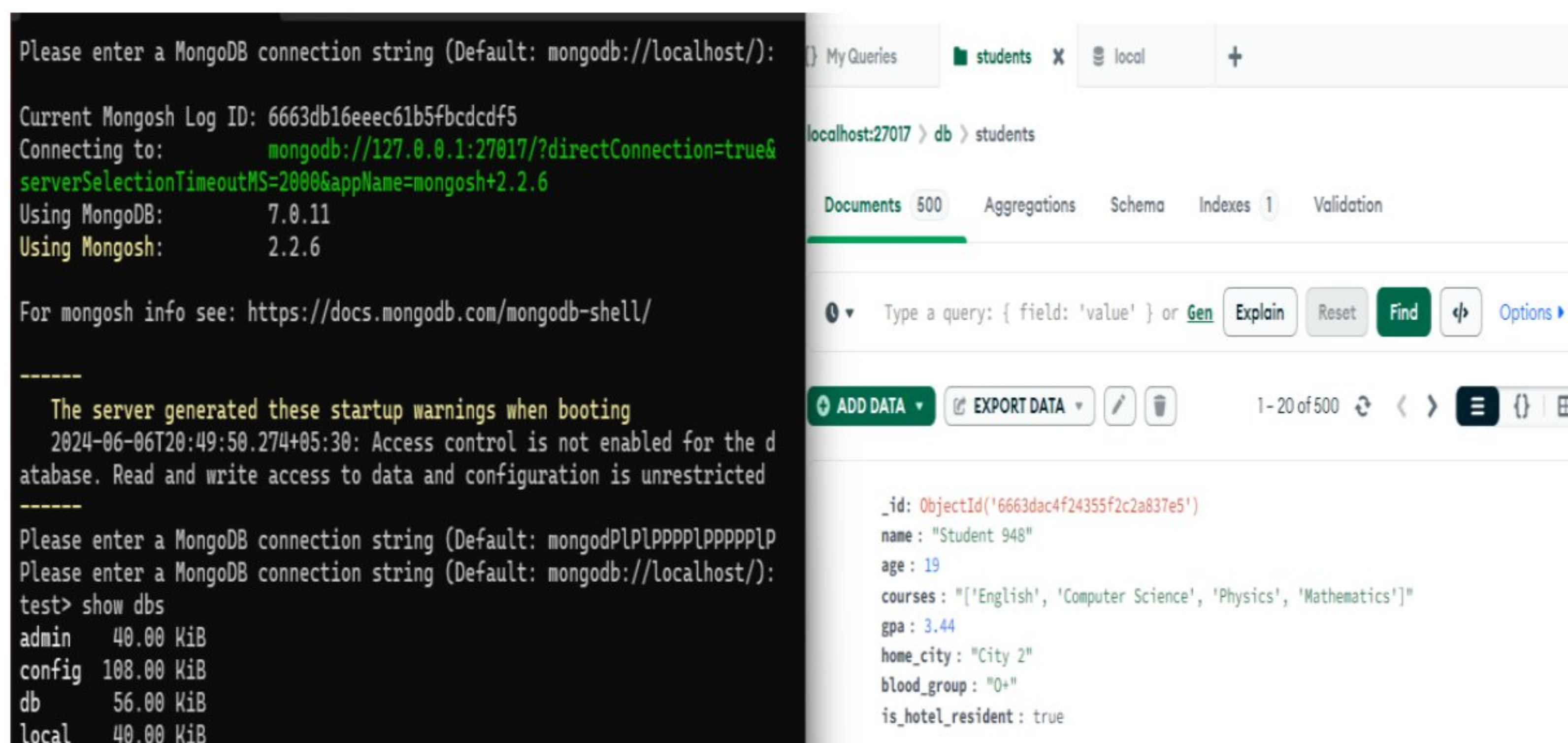


ADD, UPDATE AND DELETE

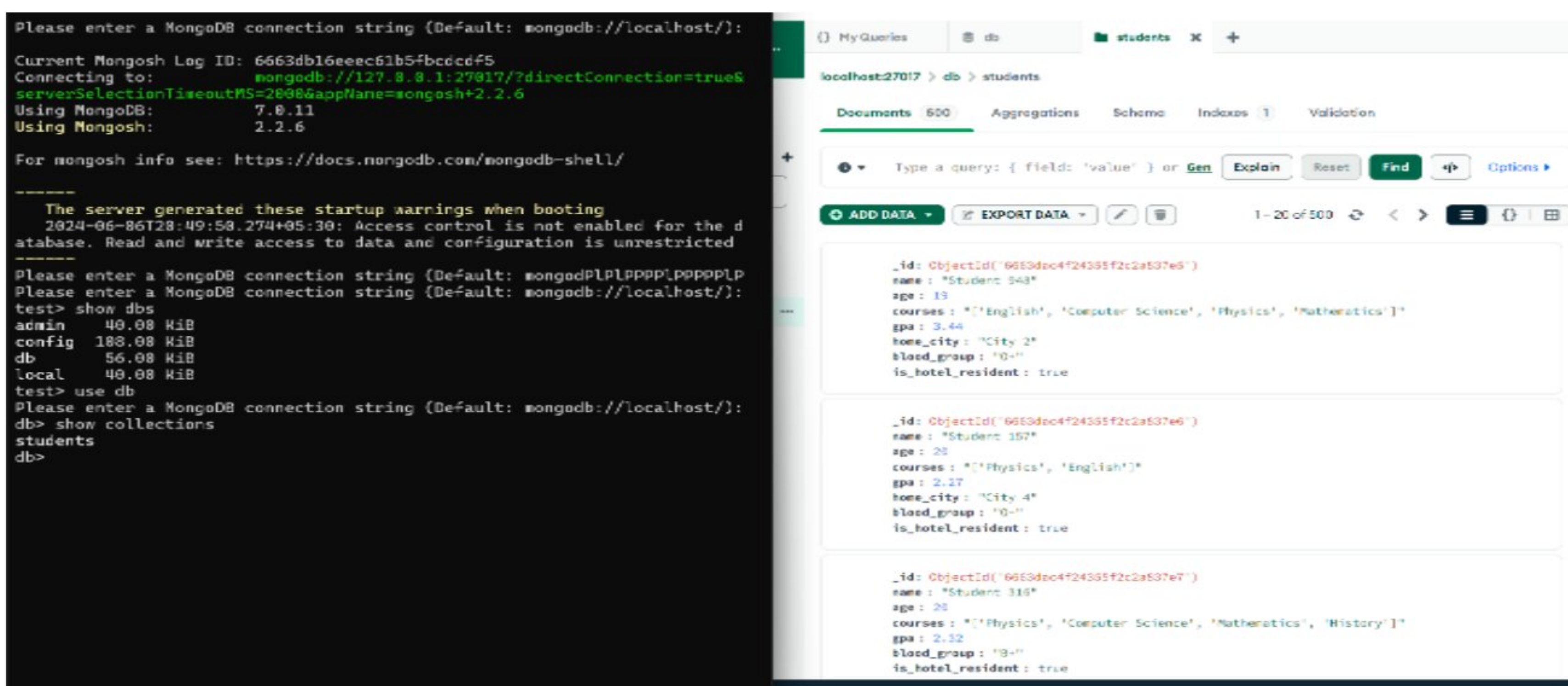
COMMANDS:

A command is an instruction given by a user to a computer or software to perform task. It can be a single word, a line of code or a series of instructions that tell the computer what to do.

Here in MongoDB we use a command called “**show dbs**” where it shows all the databases which are imported through mongocompass



Then, we use a command called “**use db**” where this connects to the database which is imported.



To check whether the databased is switched with a particular collection we use a command “**show collections**”.it’s a proof of switching a db.

Please enter a MongoDB connection string (Default: mongodb://localhost/):

Current Mongosh Log ID: 6663db16eeec61b5fbcddcf5
Connecting to: **`mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000&appName=mongosh+2.2.6`**
Using MongoDB: 7.0.11
Using Mongosh: 2.2.6

For mongosh info see: <https://docs.mongodb.com/mongosh-shell/>

The server generated these startup warnings when booting
2024-06-06T20:49:50.274+05:30: Access control is not enabled for the database. Read and write access to data and configuration is unrestricted

Please enter a MongoDB connection string (Default: mongodb://localhost/):
Please enter a MongoDB connection string (Default: mongodb://localhost/):
test> show dbs
admin 40.00 KiB
config 108.00 KiB
db 56.00 KiB
local 40.00 KiB
test> use db
switched to db db
db>

My Queries students local +

localhost:27017 > db > students

Documents 500 Aggregations Schema Indexes 1 Validation

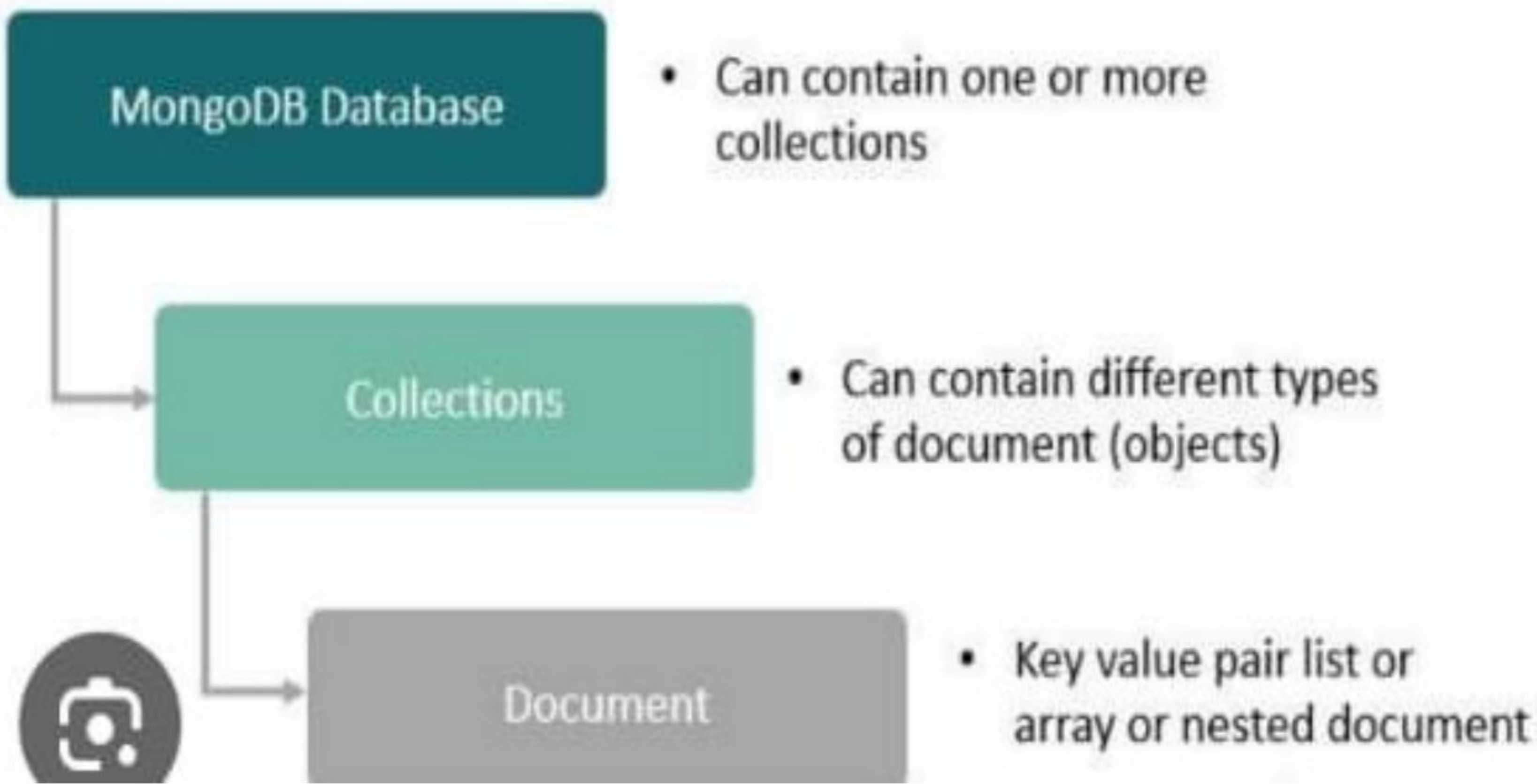
Type a query: { field: 'value' } or Gen Explain Reset Find Options

ADD DATA EXPORT DATA 1 - 20 of 500

`_id: ObjectId('6663dac4f24355f2c2a837e5')`
`name: "Student 948"`
`age: 19`
`courses: ["English", "Computer Science", "Physics", "Mathematics"]`
`gpa: 3.44`
`home_city: "City 2"`
`blood_group: "O+"`
`is_hotel_resident: true`

`_id: ObjectId('6663dac4f24355f2c2a837e6')`
`name: "Student 157"`

DATABASE, COLLECTIONS, DOCUMENT:



DATA BASE:

In MongoDB a database contains the collection of **documents**. One can create multiple databases on the MongoDB server.

To check the databases found in MongoDB we use a commands as shown below:

```
Current Mongosh Log ID: 66640228cfc60363b8cdcdf5
Connecting to:      mongodb://127.0.0.1:27017/?directConnection=true&
serverSelectionTineoutMS=2000&appName=mongosh+2.2.6
Using MongoDB:      7.0.11
Using Mongosh:      2.2.6

For mongosh info see: https://docs.mongodb.com/mongosh-shell/

-----
The server generated these startup warnings when booting
2024-06-08T11:39:34.025+05:30: Access control is not enabled for the d
atabase. Read and write access to data and configuration is unrestricted
-----

test> use db
switched to db db
db> show dbs
admin      40.00 KiB
config    108.00 KiB
db         192.00 KiB
local      72.00 KiB
db> show collections
locations
students
students_permission
Please enter a MongoDB connection string (Default: mongodb://localhost/):
db> |
```

COLLECTION:

Collections are just like tables in relational databases, they also store data, but in front of the documents. A single database is allowed to store multiple collections.

To find collection there is an example below:

A collection “students” is imported, now we need to check some factors based on conditions. Let’s see how we can find them:

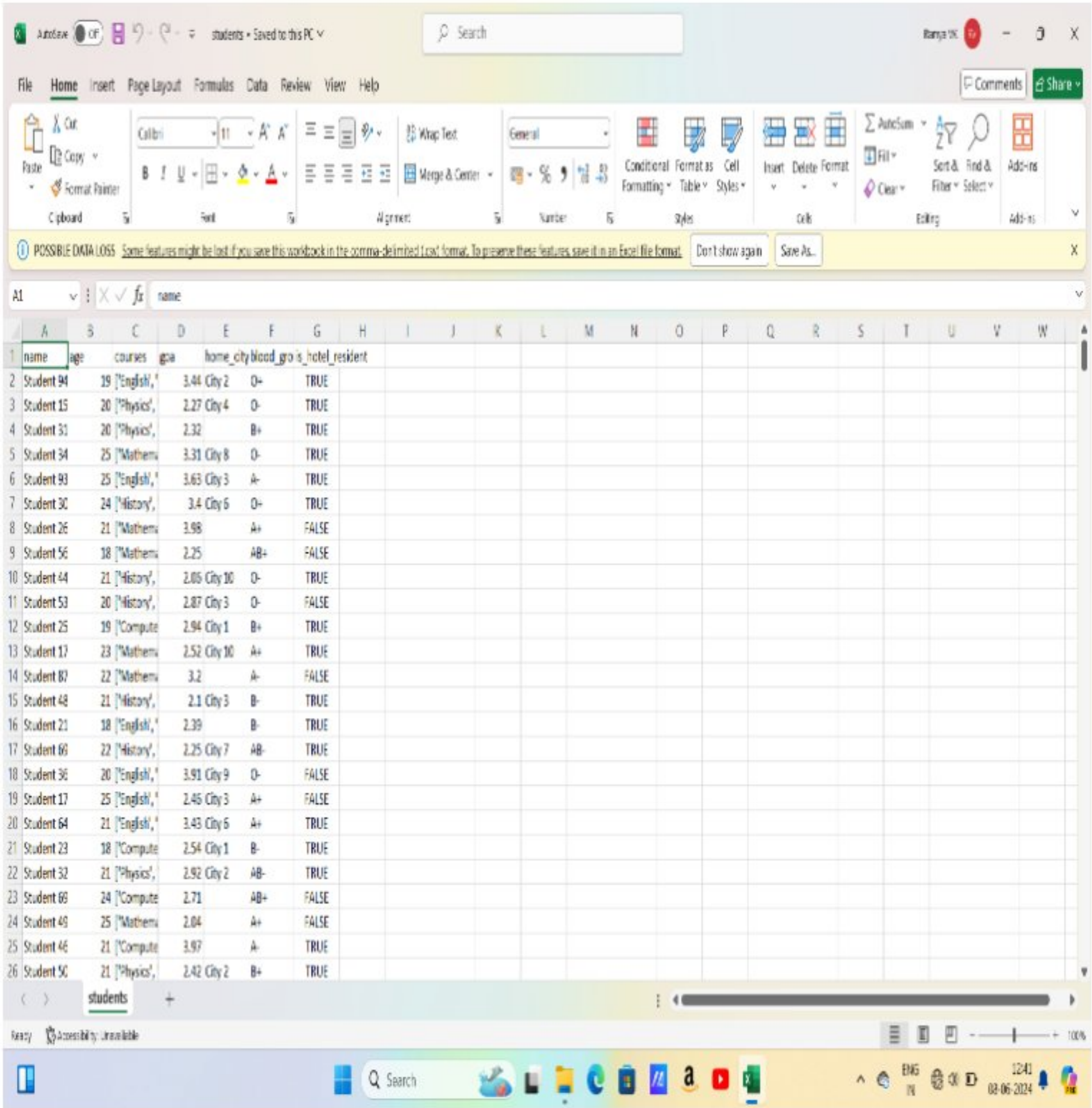
To (find) the data what is stored in students.csv file we use

db.students.find();

```
db> db.students.find({});
[
  {
    _id: ObjectId('6663dac4f24355f2c2a837e5'),
    name: 'Student 948',
    age: 19,
    courses: "['English', 'Computer Science', 'Physics', 'Mathematics']",
    gpa: 3.44,
    home_city: 'City 2',
    blood_group: 'O+',
    is_hotel_resident: true
  },
  {
    _id: ObjectId('6663dac4f24355f2c2a837e6'),
    name: 'Student 157',
    age: 20,
    courses: "['Physics', 'English']",
    gpa: 2.27,
    home_city: 'City 4',
    blood_group: 'O-',
    is_hotel_resident: true
  },
  {
    _id: ObjectId('6663dac4f24355f2c2a837e7'),
    name: 'Student 316',
    age: 20,
    courses: "['Physics', 'Computer Science', 'Mathematics', 'History']",
    gpa: 2.32,
    blood_group: 'B+',
    is_hotel_resident: true
  },
  {
    _id: ObjectId('6663dac4f24355f2c2a837e8'),
    name: 'Student 346',
    age: 25,
    courses: "['Mathematics', 'History', 'English']",
    gpa: 3.31,
    home_city: 'City 8',
    blood_group: 'O-',
    is_hotel_resident: true
  },
]
```

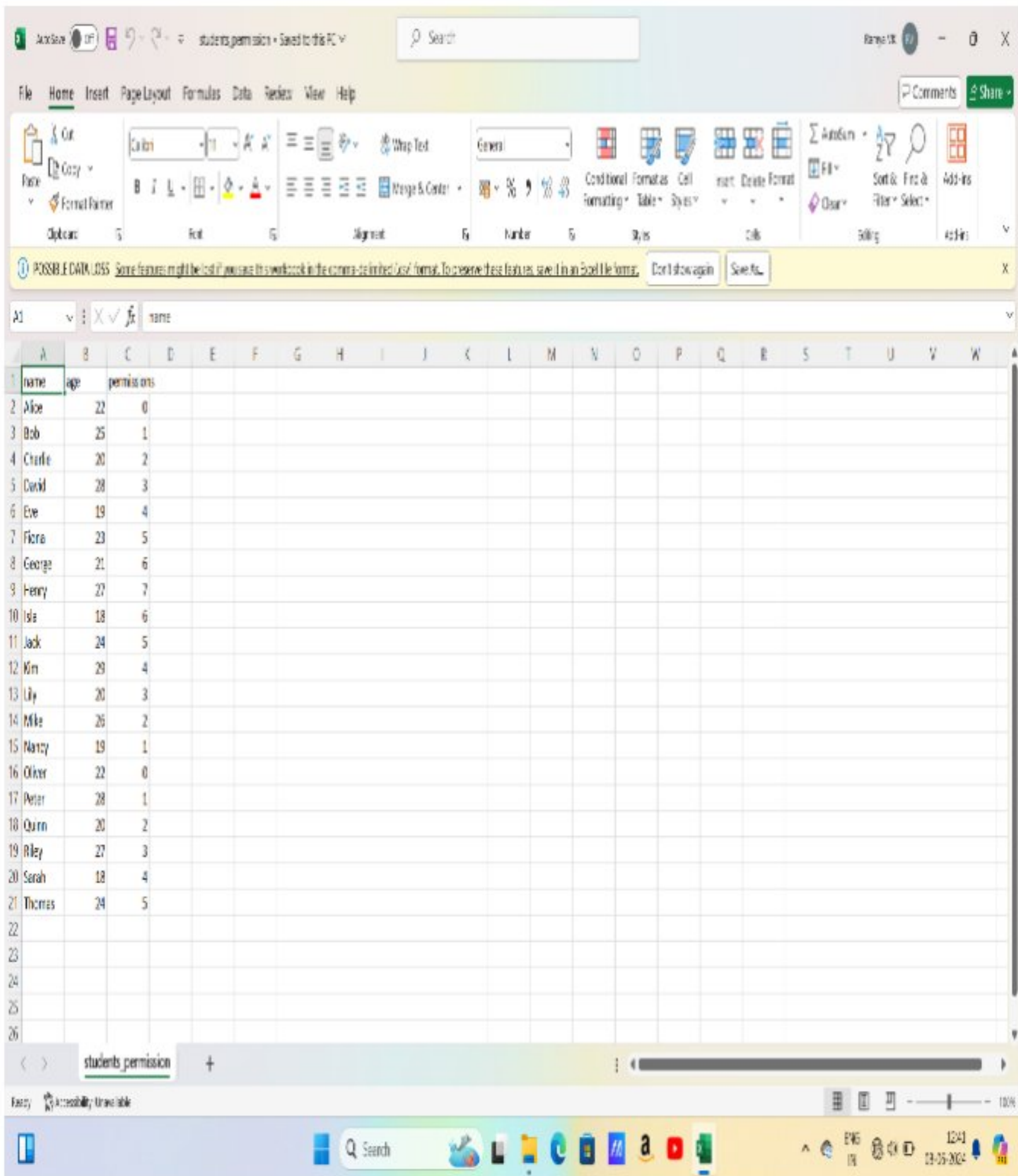

DOCUMENT:

In MongoDB ,the data records are stored as **BSON** documents.here ,BSON stands for **Binary representation of JSON documents** ,although BSON contains more data types as compared to JSON.the value of the field can be of any BSON type.



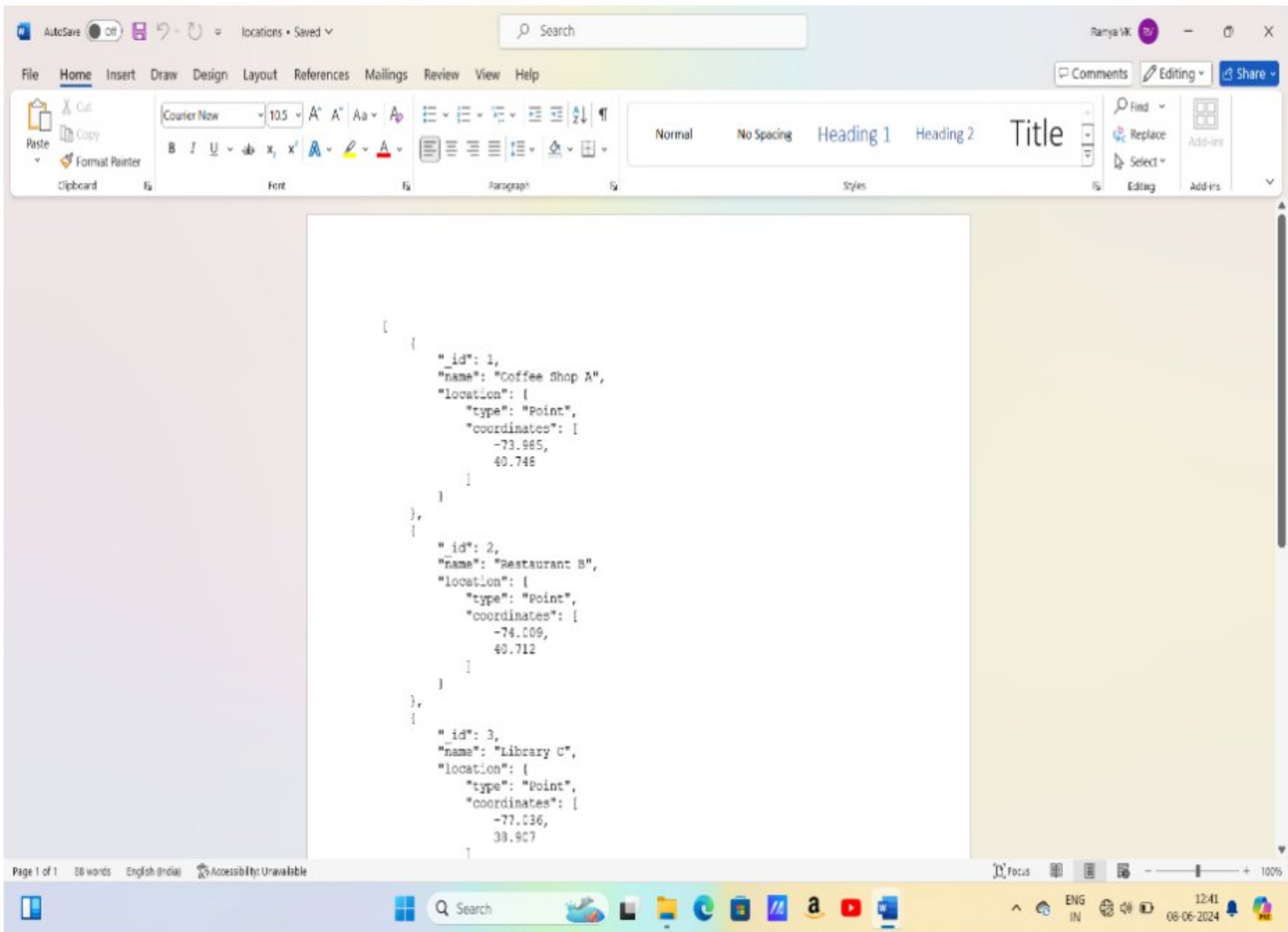
A screenshot of a Microsoft Excel spreadsheet titled 'students'. The spreadsheet contains a table with 26 rows of student data. The columns are labeled 'name', 'age', 'courses', 'gpa', 'home', 'city', 'blood_group', and 'hotel_resident'. The data includes names like Student 94, Student 15, Student 31, etc., along with their respective ages, courses, GPAs, and other attributes.

name	age	courses	gpa	home	city	blood_group	hotel_resident
Student 94	19	English	3.44	City 2	O+	TRUE	
Student 15	20	Physics	2.27	City 4	O-	TRUE	
Student 31	20	Physics	2.32	B+	TRUE		
Student 34	25	Mathematics	3.31	City 8	O-	TRUE	
Student 90	25	English	3.63	City 3	A-	TRUE	
Student 30	24	History	3.4	City 5	O+	TRUE	
Student 26	21	Mathematics	3.98	A+	FALSE		
Student 56	18	Mathematics	2.25	AB+	FALSE		
Student 44	21	History	2.65	City 10	O-	TRUE	
Student 53	20	History	2.87	City 3	O-	FALSE	
Student 25	19	Computer	2.94	City 1	B+	TRUE	
Student 17	23	Mathematics	2.52	City 10	A+	TRUE	
Student 87	22	Mathematics	3.2	A-	FALSE		
Student 48	21	History	2.1	City 3	B-	TRUE	
Student 21	18	English	2.39	B-	TRUE		
Student 66	22	History	2.25	City 7	AB	TRUE	
Student 36	20	English	3.91	City 9	O-	FALSE	
Student 17	25	English	2.46	City 3	A+	FALSE	
Student 64	21	English	3.43	City 5	A+	TRUE	
Student 23	18	Computer	2.54	City 1	B-	TRUE	
Student 32	21	Physics	2.92	City 2	AB-	TRUE	
Student 66	24	Computer	2.71	AB+	FALSE		
Student 49	25	Mathematics	2.84	A+	FALSE		
Student 46	21	Computer	3.97	A-	TRUE		
Student 52	21	Physics	2.42	City 2	B+	TRUE	



A screenshot of a Microsoft Excel spreadsheet titled 'students.permissions'. The spreadsheet contains a table with 26 rows of student permission data. The columns are labeled 'name', 'age', and 'permissions'. The data includes names like Alice, Bob, Charlie, David, etc., along with their ages and permission levels.

name	age	permissions
Alice	22	0
Bob	25	1
Charlie	20	2
David	28	3
Eve	19	4
Fiona	23	5
George	21	6
Henry	27	7
Iris	18	6
Jack	24	5
Kim	29	4
Lily	20	3
Mike	26	2
Nancy	19	1
Oscar	22	0
Peter	28	1
Quinn	20	2
Riley	27	3
Sarah	18	4
Thomas	24	5



A screenshot of a Microsoft Word document titled 'locations'. The document contains a JSON array of three objects, each representing a location. The objects are: a coffee shop, a restaurant, and a library, each with an id, name, location (type: point), and coordinates.

```
{
  "id": 1,
  "name": "Coffee Shop A",
  "location": {
    "type": "Point",
    "coordinates": [
      -73.965,
      40.748
    ]
  }
},
{
  "id": 2,
  "name": "Restaurant B",
  "location": {
    "type": "point",
    "coordinates": [
      -74.009,
      40.712
    ]
  }
},
{
  "id": 3,
  "name": "Library C",
  "location": {
    "type": "Point",
    "coordinates": [
      -77.036,
      38.907
    ]
  }
}
```