MongoDB Practice Problem Statements

1. **Create table Tutorial(tutorial_id,tut_title,author,submission_date) using MongoDB**

   Implement following operation on above table

   1)Insert

   2)Update

   3)Delete

   4)Display all the tutorial details

   5)Find specific tutorial_id and author of respective tutorial.

   6)Display all the records of tutorial where author name starts with"Sa"

   7)Display all tutorials in Ascending and Descending order according to tutorial_id or author name.

2. **Place an order of any five products from computer Shoppe like – keyboard, monitor mouse, printer, processor, switch, modem etc. and prepare a bill for the same.**

3. **Implement aggregation and indexing with suitable example using MongoDB.**

4. **For student database execute following queries:**
   - **Find the record of the students who has got the highest marks in DBMS subject.**
   - **Find the average result of TOC subject.**
   - **Find the record of the students who has got the lowest marks in CNT subject.**
   - **Find the total number of students who scored first class.**

5. **Implement map reduce operation for super market.**

6. **Create university database (using mongodb)**
   - **Find the list of teachers in IT dept.**
   - **Find the list of teachers who have salary greater than 50000.**
   - **Find the teacher's list in descending order.**
   - **Remove the teacher whose status is not approved.**
   - **Give the increment of rs.20000 who has salary less than 30000.**

7. **Create library database (using mongodb)**
   - **List the books of management subjects.**

- **List the books whose publication is "Pearson"**
- **List the number of journals.**
- **List the number of books which price is less than rs.500.**
- **Find the total investment for IT dept (IT books).**

8. **Create a database with suitable example using MongoDB and implement**
    a. **inserting and saving document (batch insert, insert validation)**
    b. **Removing document**
    c. **Updating document (document replacement, using modifiers, upserts, updating multiple documents, returning updated documents)**

9. **Create a database Execute at least 10 queries on any suitable MongoDB database that demonstrates following querying techniques:**
    a. **find and findOne (specific values)**
    b. **Query criteria (Query conditionals, OR queries, $not, Conditional semantics)**
    c. **Type-specific queries (Null, Regular expression, Querying arrays)**

10. **Execute at least 10 queries on any suitable MongoDB database that demonstrates following: a. $ where queries**
    b. **Cursors (Limits, skips, sorts, advanced query options)**
    c. **Database commands**

11. Implement the aggregation and indexing with suitable example in MongoDB. Demonstrate the following: Aggregation framework Create and drop different types of indexes and explain () to show the advantage of the indexes.

12. Create teacher database which contains the information of teacherid, name, department, salary and status of teacher (Approved/not approved). Design and implement any ten queries using mongodb.

13. Createdatabase of 'restaurants' collection(Using mongodb)

- **To display the fields restaurant_id, name and cuisine for all the documents in the collection restaurant.**
- **To find the restaurants that do not prepare any cuisine of 'London' and their grade score more than 70**
- **to find the restaurant Id, name, and cuisine for those restaurants which contain 'esh' as last three letters for its name**
- **To display all the documents in the collection restaurants**.

14. Create author database(Using Mongodb)-Using author_id, title, name, description, url,likes.

- **To display a list stating how many tutorials are written by each user**
- **To display author names where the author field equals "Kahate"**
- **To display all author names in ascending & descending order**
- **To calculate maximum& minimum value of book title**

15. Create Instructor collection and execute following queries

a. **Find out details of instructors working in IT department**
b. **Find out details of instructors who have salary>40000**
c. **Give count of inst in comp dept**
d. **Give incrementof 10000 to instructor whose status is approved**

16. Create Instructor collection and execute following queries

a. **Display the documents in ascending order**
b. **Display the details of instructor whose first name is Saurabh**
c. **Display first 5 documents of instructor collection**
d. **Add one more phone to id 1 (AddtoSet)**

17. Create Instructor collection and execute following queries

a. **Find Instructor with id 1,2,3**
b. **Find details of instructor except 1,2,3**
c. **Find instructor whose salary is neither < 50000 nor department is computer**
d. **Display details of instructor dept has substring e**

18. Create Instructor collection and execute following queries

a. **Display details of instructor whose City has substring n**
b. **Find details of instructor whose Dept has substring mec and h**
c. **Find out instructor id, first name, department name along with salary where salary< 50000 and status is approved**
d. **Find out details of instructors who have salary<30000**

19. Create Instructor collection and execute following queries

a. **Delete details of instructor having salary < 30000**
b. **Find instructors with either salary<50000 or deparment is computer**
c. **Find out details of instructors who have salary==50000**
d. **Find employee id, first name, along with salary where salary>50000**

20. Create Instructor collection and execute following queries

a. **Find out details of instructors having salary >40000 and < 80000**
b. **Display the details of instructors who are living in Maharashtra**
c. **Find out details of instructors working in AIML department**
d. **Find instructor id along with department and salary where department has substring o.**