

MongoDB - NOSQL

Practice – 1

Overview

In this practice session you will learn how to work with the basic utilities. Upon completion of this practice, you should be able to:

- *Start and end UNIX / LINUX session*
- *Change user password □ Display System date and time □ View manual pages for help.*
- *Use calculator and perform computation.*
- *Some more utilities – cal, uptime, uname etc..*

Hands-on

NOTE: Open a Command Window and start the **MongoDB server**. Don't forget to specify the path where the data (files) should be stored.

NOTE: Open yet another Command Window and start your **MongoDB shell**.

1. In the MongoDB shell, type the command **help** and find out the following:
 - [a] The command to exit the MongoDB shell
 - [b] The command to get the list of databases
 - [c] The command to get the list of collections
 - [d] The command to change / choose a database
2. Create the database by the name of your organization and have a collection by name **staff** which represents the staff members of the organization with the following fields:

staffName, gender, age, email, salary and married

Ensure that the collection has at least TEN documents in it.

If email is not existing, the value can be set to null.

The married field will have Boolean values true / false

3. Import the **employees** and the **departments** collection with the current database

NOTE: If you are not sure how to import the collections provided to you in JSON format, reach out to the trainer.

4. Identify the different fields of the 'employees' collection. Make a note of it.

5. Identify the different fields of the 'departments' collection. Make a note of it.

6. Write a query to get the department details.

Are you able to see all the department collection documents.

Can we observe only one document to identify the different fields in the collection.

7. Write a query to get the list of employees with their ID, first and last name, job and salary fields only.

8. Write a query to display the last name and salary of employees earning more than \$12,000.

9. Create a query to display the employee's last name and department number for employee number 176.

10. Display the last name and salary for all employees whose salary is not in the range of \$5,000 and \$12,000

11. Display the first name, last name and department number of all employees in departments 20 and 50

Can we display in alphabetical order by first name.

12. List the last name and salary of employees who earn between \$5,000 and \$12,000, and are in department 20 or 50 arranged in the alphabetical order by name.

13. Display the last name and hire date of every employee who was hired in the year 1994

14. Display the last name, salary, and commission for all employees who earn commissions.

Arrange the data in descending order of salary

15. Display the last names of all employees where the third letter of the name is an 'a'.

16. Display the last name of all employees who have an 'a' and an 'e' in their last name.

17. Display those employees whose first name starts with 'P'

18. Display those employees whose first name has double 'll' in them. Only list the first & last name with salary should be displayed

19. Display the last name, job, and salary for all employees whose job is sales representative or stock clerk and whose salary is not equal to \$2,500, \$3,500, or \$7,000.

NOTE: Sales Representative (SA_REP) and Stock Clerk (ST_CLERK)

20. Display the last name, salary, and commission for all employees whose commission amount is 20%.