**Assignment-10(Mongo dB)**

Northwest Missouri State University is one of those universities that strives for student development and success. In this process, Northwest is organizing a few workshops regularly for students in different sectors.



So let’s imagine the list of a few workshops that they have decided to conduct in the year 2021 as shown below.

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Location** | **Duration (in hours)** | **GuestList** |
| Agro Development | Library | 2 | Dr. Jennifer Cervantes, Dr. L. Hubbard |
| Future planning | Zoom | 1 | Dr. Chi Lo Lim |
| CAD training | SU | 3 | Dr. Damon Leiss, Dr. David Kiene |
| International Culture Exchange | Library | 2 | Dr. David Kiene, Dr. Joy Daggs, Dr. Shandy Beck |
| Technical talk | SU | 4 |  |
| Political talk | Zoom | 2 | Dr. Matt Schieber |
| Financial Planning | SU | 3 | Dr. Rick Toomey, Dr. Cari Cline |
| Healthy food | Zoom | 2 |  |
| Photography talk | Library | 1 | Dr. Roger Von Holzen |
| Fitness club | Gym | 3 | DR. Lori Mardis, Dr.Ildiko Olasz |
| VidGrid Training | CITEite Office | 2 | Dr. McDonald Gary |

The list is still incomplete and many changes may be required. But at this point, we have to store this data using the Mongo database.

**Instructions:** Make changes to this document and include your answers below each question. Also include **screenshots** of all the queries you executed in this assignment.

**Questions:**

1. First create a new database named “NorthwestWorkshops”.

**Ans:** use NorthwestWorkshops;

Text

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1. Now write a query to create a collection to store the documents and name it “workshops”.

Ans: db.createCollection(‘workshops’);

Shape, rectangle

Description automatically generated

1. Now write a query to insert the first record from the table given in the table above.

**Ans:** db.workshops.insert({

name:"Agro Development",location:"Library",duration:2,

guestList:["Dr. Jennifer Cervantes", "Dr. L. Hubbard" ]});

Text

Description automatically generated

1. Now write a query to insert the rest of the data using only one command.

**Ans:** db.workshops.insert([

{ name:"Future planning", location:"Zoom", duration:1,

guestList:[ "Dr. Chi Lo Lim"] },

{ name:"CAD training", location:"SU", duration:3,

guestList:[ "Dr. Damon Leiss", "Dr. David Kiene "] },

{ name:"International Culture Exchange", location:"Library", duration:2,

guestList:["Dr. David Kiene", "Dr. Joy Daggs", "Dr. Shandy Beck"] },

{ name:"Technical talk", location:"SU", duration:4 },

{ name:"Political talk", location:"Zoom", duration:2,

guestList:["Dr. Matt Schieber"] },

{ name:"Financial Planning", location:"SU", duration:3,

guestList:["Dr. Rick Toomey", "Dr. Cari Cline"] },

{ name:"Healthy food", location:"Zoom", duration:2 },

{ name:"Photography talk", location:"Library", duration:1,

guestList:["Dr. Roger Von Holzen"] },

{ name:"Fitness club", location:"Gym", duration:3,

guestList:["Dr. Lori Mardis", "Dr.Ildiko Olasz"] },

{ name:"VidGrid Training", location:"CITEite Office", duration:2,

guestList:["Dr. McDonald Gary"]}]);

Text

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1. Now write a query to display the data using a single command.

Note: we have a method called pretty(), by which we can see the data in a better structure. Please use it.

**Ans:** db.workshops.find().pretty();

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Text

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1. Write a query that prints the names of all the events conducted through “Zoom”.

**Ans:** db.workshops.find({location:"Zoom"}).pretty();

**Text

Description automatically generated**

1. You can see that workshop named “Technical talk” does not contain any guests yet. Write a query to update the guest's name with “Dr. Von Holzen”.

**Ans:** : db.workshops.update({name:"Technical talk"},{$set:{guestList:["Dr. Roger Von"]}});

**Text

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1. We got notification from an organizer stating that the event named “VidGrid Training” is going to conduct its meeting through Zoom instead of the CITEite office.

So, write a query to update this information.

**Ans:** db.workshops.update({name:"VidGrid Training"},{$set:{location:"Zoom"}});

Text

Description automatically generated

1. Use a forEach loop and print the names of the events where the duration of the event is more than 2 hours (search and find the syntax by yourself).

**Ans:** db.workshops.find( { duration: { $gt: 2 } } ).forEach(function(findgtr) {

print("Names whose duration is more than 2: "+findgtr.name)

});

Text

Description automatically generated

1. Write the differences between SQL and MongoDB.

Ans :

SQL

1. SQL databases are used to store structured data

2. Data is represented in the form of rows and columns

3. SQL databases have a predefined schema

MongoDB

1. NoSQL databases like MongoDB are used to store unstructured data

2. Data is represented in the form of JSON format

3. MongoDB stores data in the form of key and value pairs