

Lab Sheet 6: MongoDB Basic commands

Branch/ Class: B.Tech/M.Tech

Date: 26-Feb-2026

Faculty Name: Prof. S.Gopikrishnan

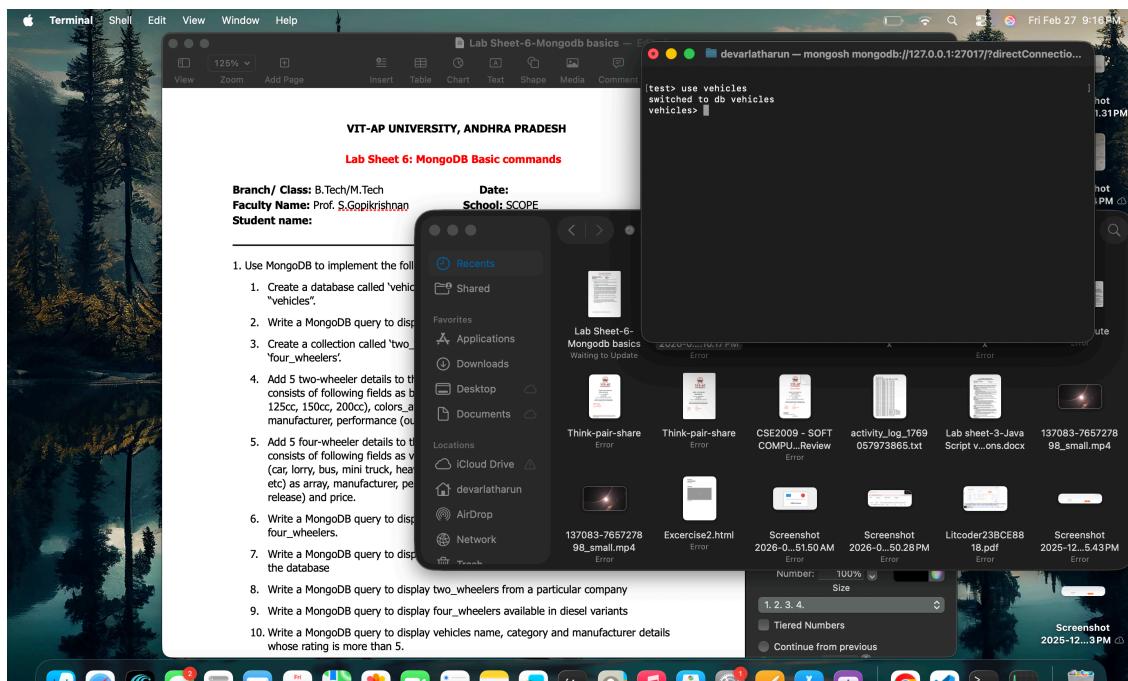
School: SCOPE

Student name: Devarla Tharun

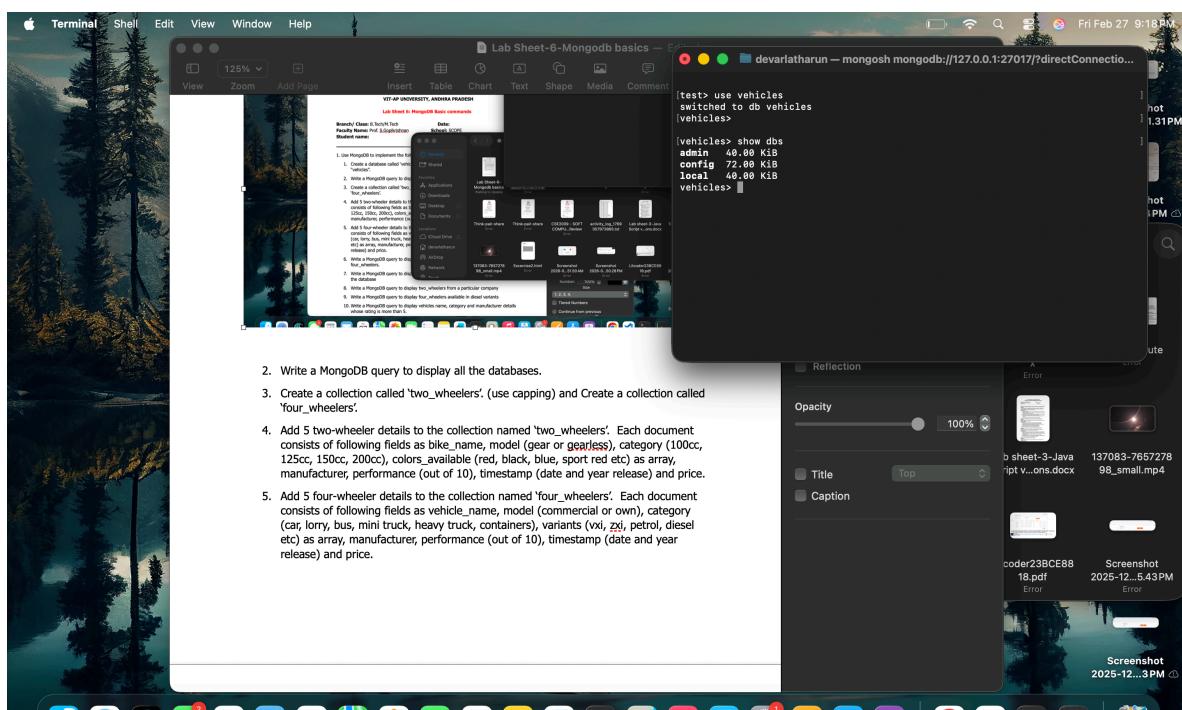
Reg. no.: 23BCE8818

1. Use MongoDB to implement the following DB operations

1. Create a database called 'vehicles' and write a MongoDB query to select database as "vehicles".



2. Write a MongoDB query to display all the databases.



Lab Sheet 6: MongoDB Basic commands

Branch/ Class: B.Tech/M.Tech

Date: 26-Feb-2026

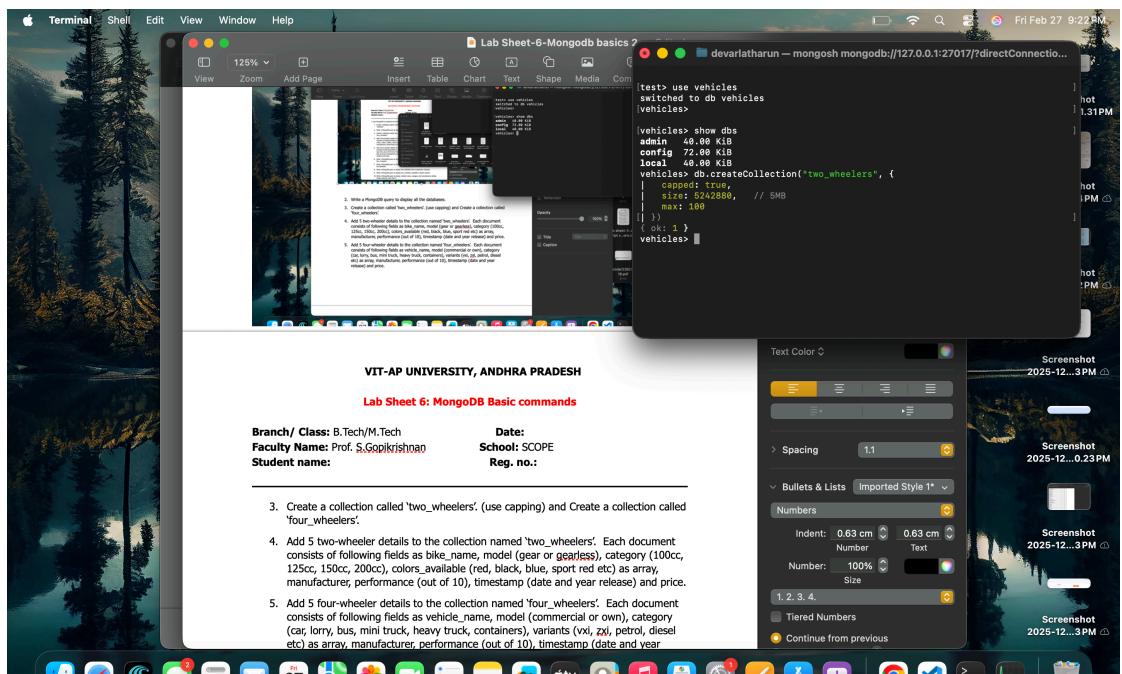
Faculty Name: Prof. S.Gopikrishnan

School: SCOPE

Student name: Devarla Tharun

Reg. no.: 23BCE8818

3. Create a collection called 'two_wHEELERS'. (use capping) and Create a collection called 'four_wHEELERS'.



4. Add 5 two-wheeler details to the collection named 'two_wHEELERS'. Each document consists of following fields as bike_name, model (gear or gearless), category (100cc, 125cc, 150cc, 200cc), colors_available (red, black, blue, sport red etc) as array, manufacturer, performance (out of 10), timestamp (date and year release) and price.

```

apple2:~/Desktop/devarlatharan$ mongo
MongoDB shell version: 4.2.15
connecting to: mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000
MongoDB server version: 4.2.15
WARNING: This MongoDB instance is configured to use direct connections to clients, which is not recommended. See https://dochub.mongodb.org/core/direct-connections for more information.
> db = db.getSiblingDB("test")
> db.vehicles.insertMany([
  {
    "category": "150cc",
    "model": "Bajaj",
    "color": ["red", "black", "blue"],
    "manufacturer": "Bajaj",
    "performance": 8,
    "timestamp": new Date("2019-06-15"),
    "price": 10000
  },
  {
    "bike_name": "Active 6G",
    "model": "gear",
    "category": "110cc",
    "colors_available": ["black", "white", "grey"],
    "manufacturer": "Honda",
    "performance": 9,
    "timestamp": new Date("2020-01-10"),
    "price": 75000
  },
  {
    "bike_name": "Apache RTR 160",
    "model": "gear",
    "category": "150cc",
    "colors_available": ["red", "black"],
    "manufacturer": "TVS",
    "performance": 8,
    "timestamp": new Date("2018-04-20"),
    "price": 115000
  },
  {
    "bike_name": "FZ-S",
    "model": "gear",
    "category": "150cc",
    "colors_available": ["blue", "black"],
    "manufacturer": "Yamaha",
    "performance": 7,
    "timestamp": new Date("2017-08-05"),
    "price": 100000
  },
  {
    "bike_name": "Juniper",
    "model": "gearless",
    "category": "150cc",
    "colors_available": ["silver", "red"],
    "manufacturer": "TVS",
    "performance": 7,
    "timestamp": new Date("2019-03-12"),
    "price": 70000
  }
], {
  acknowledged: true,
  insertedIds: [
    "5d41be4a89f4a9677bd2946f",
    "5d41be4a89f4a9677bd29470",
    "5d41be4a89f4a9677bd29471",
    "5d41be4a89f4a9677bd29472",
    "5d41be4a89f4a9677bd29473"
  ]
})

```

VIT-AP UNIVERSITY, ANDHRA PRADESH

Lab Sheet 6: MongoDB Basic commands

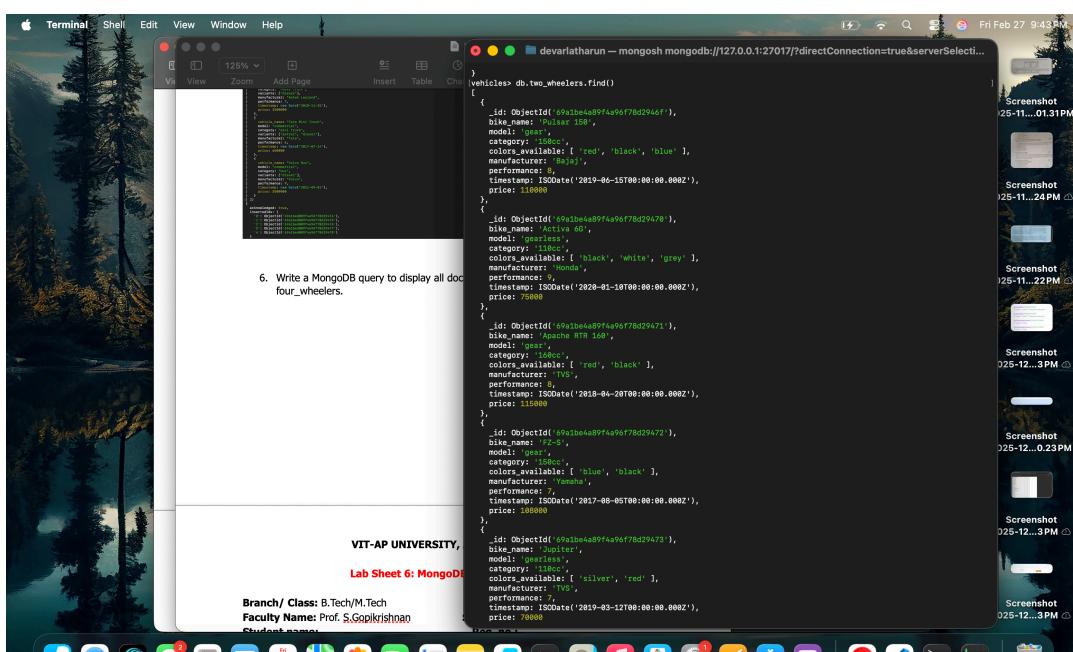
Branch/ Class: B.Tech/M.Tech
Faculty Name: Prof. S.Gopikrishnan
Student name: Devarla Tharun

Date: 26-Feb-2026
School: SCOPE
Req. no.: 23BCE8818

5. Add 5 four-wheeler details to the collection named 'four_wheelers'. Each document consists of following fields as vehicle_name, model (commercial or own), category (car, lorry, bus, mini truck, heavy truck, containers), variants (vxi, zxi, petrol, diesel etc) as array, manufacturer, performance (out of 10), timestamp (date and year release) and price.

```
vehicles> db.four_wheelers.insertMany([
  {
    vehicle_name: "Swift",
    model: "Omn",
    category: "car",
    variants: ["axi", "petrol", "diesel"],
    manufacturer: "Maruti",
    performance: 8,
    timestamp: new Date("2019-05-18"),
    price: 750000
  },
  {
    vehicle_name: "Innova",
    model: "Omn",
    category: "car",
    variants: ["axi", "diesel"],
    manufacturer: "Toyota",
    performance: 9,
    timestamp: new Date("2020-02-18"),
    price: 1800000
  },
  {
    vehicle_name: "Ashok Leyland Truck",
    model: "commercial",
    category: "truck",
    variants: ["diesel"],
    manufacturer: "Ashok Leyland",
    performance: 7,
    timestamp: new Date("2018-11-28"),
    price: 2500000
  },
  {
    vehicle_name: "Tata Mini Truck",
    model: "commercial",
    category: "mini truck",
    variants: ["petrol", "diesel"],
    manufacturer: "Tata",
    performance: 9,
    timestamp: new Date("2017-07-14"),
    price: 650000
  },
  {
    vehicle_name: "Volvo Bus",
    model: "commercial",
    category: "bus",
    variants: ["diesel"],
    manufacturer: "Volvo",
    performance: 9,
    timestamp: new Date("2021-09-01"),
    price: 3500000
  }
],
{
  acknowledged: true,
  insertedId: true
},
{
  '0': ObjectId('69a1bed08974a96f78d29474'),
  '1': ObjectId('69a1bed08974a96f78d29475'),
  '2': ObjectId('69a1bed08974a96f78d29476'),
  '3': ObjectId('69a1bed08974a96f78d29477'),
  '4': ObjectId('69a1bed08974a96f78d29478')
])
```

6. Write a MongoDB query to display all documents available in two_wHEELERS and four_wHEELERS.



Lab Sheet 6: MongoDB Basic commands

Branch/ Class: B.Tech/M.Tech

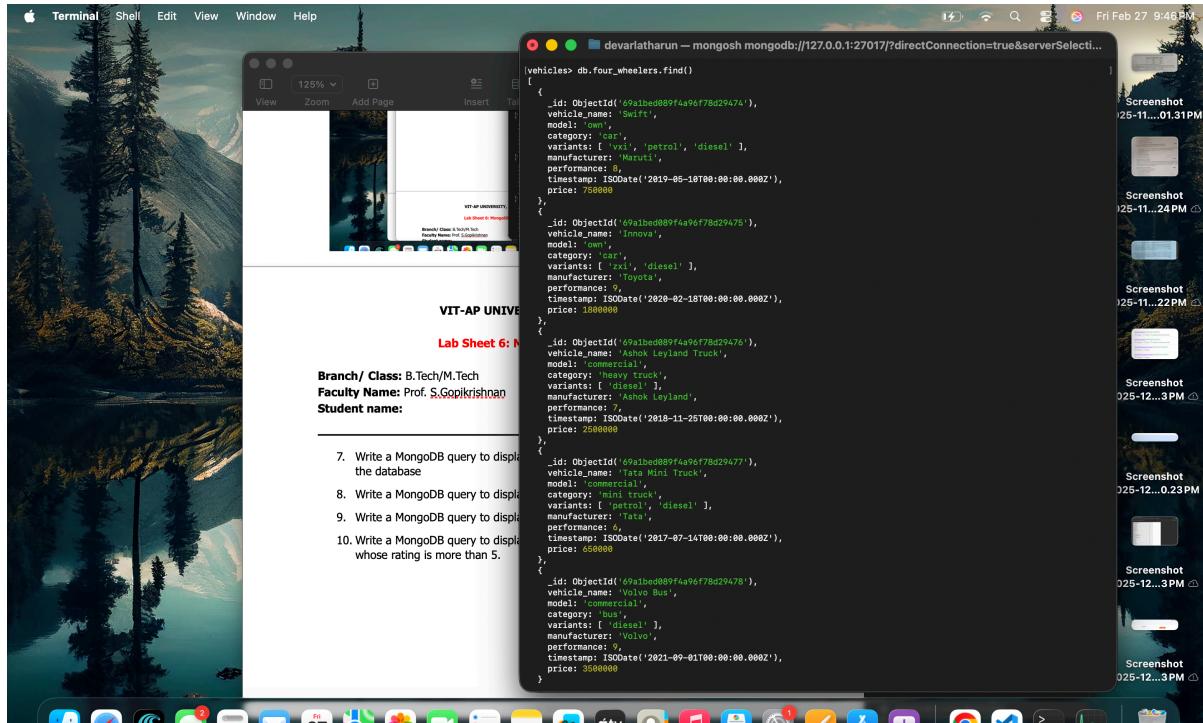
Faculty Name: Prof. S.Gopikrishnan

Student name: Devarla Tharun

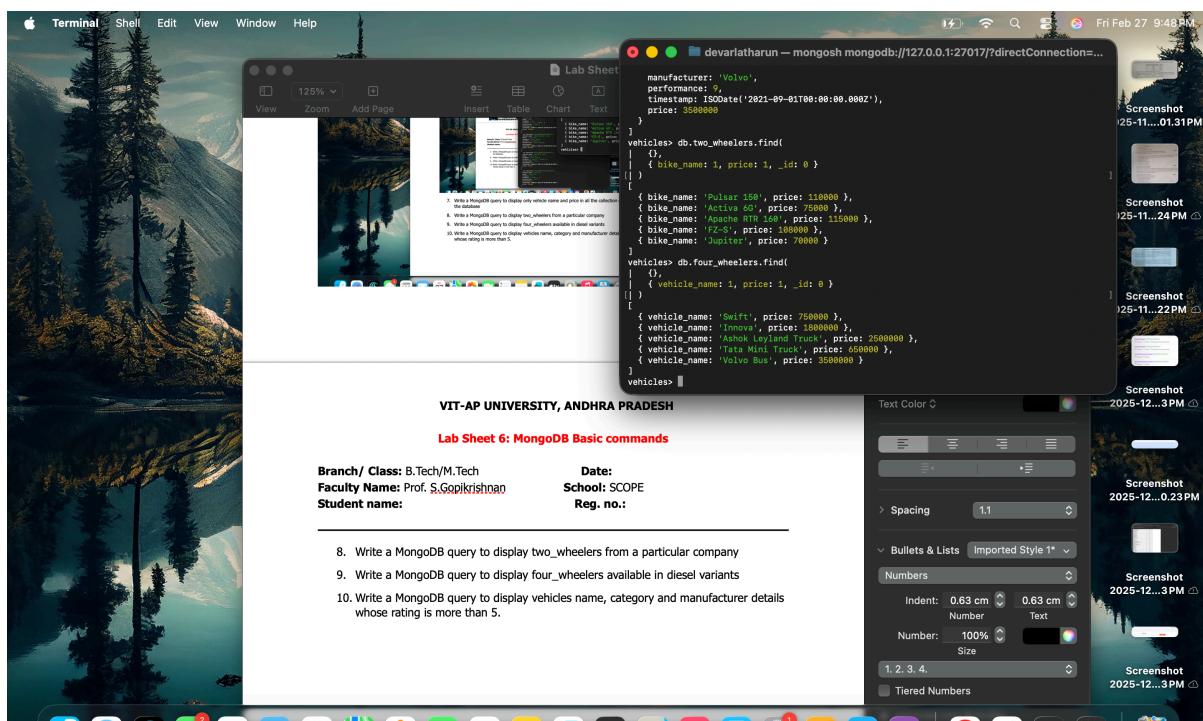
Date: 26-Feb-2026

School: SCOPE

Reg. no.: 23BCE8818



7. Write a MongoDB query to display only vehicle name and price in all the collection of the database



Lab Sheet 6: MongoDB Basic commands

Branch/ Class: B.Tech/M.Tech

Faculty Name: Prof. S.Gopikrishnan

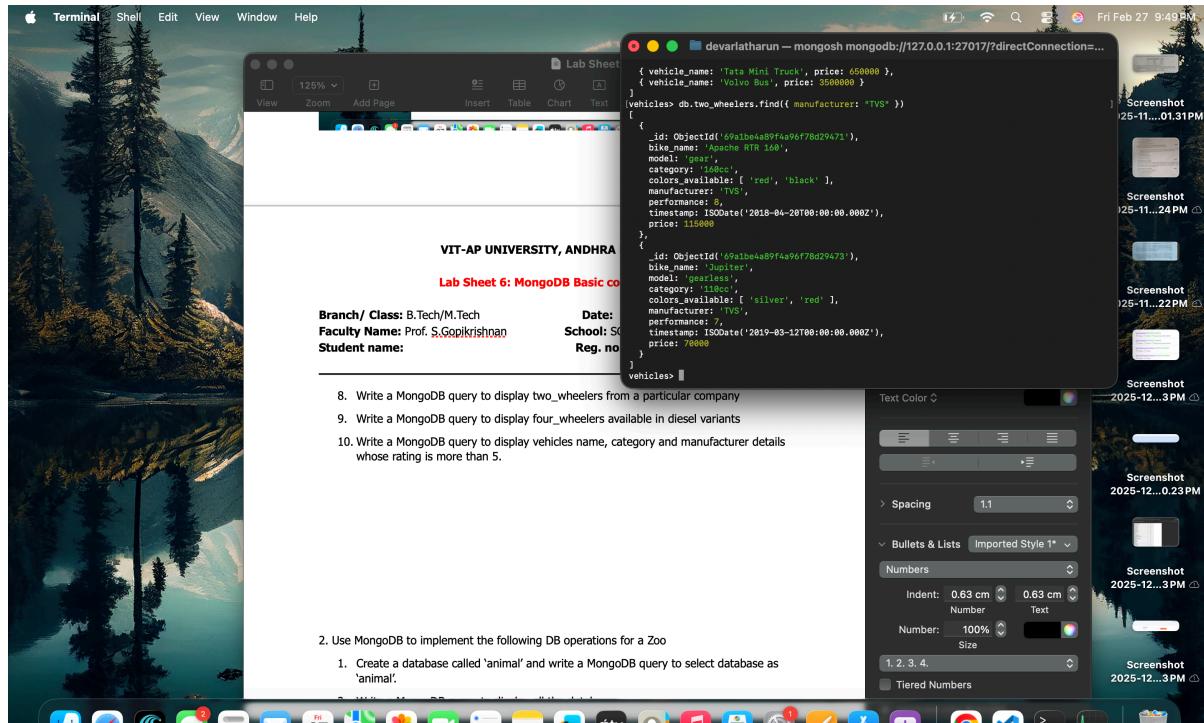
Student name: Devarla Tharun

Date: 26-Feb-2026

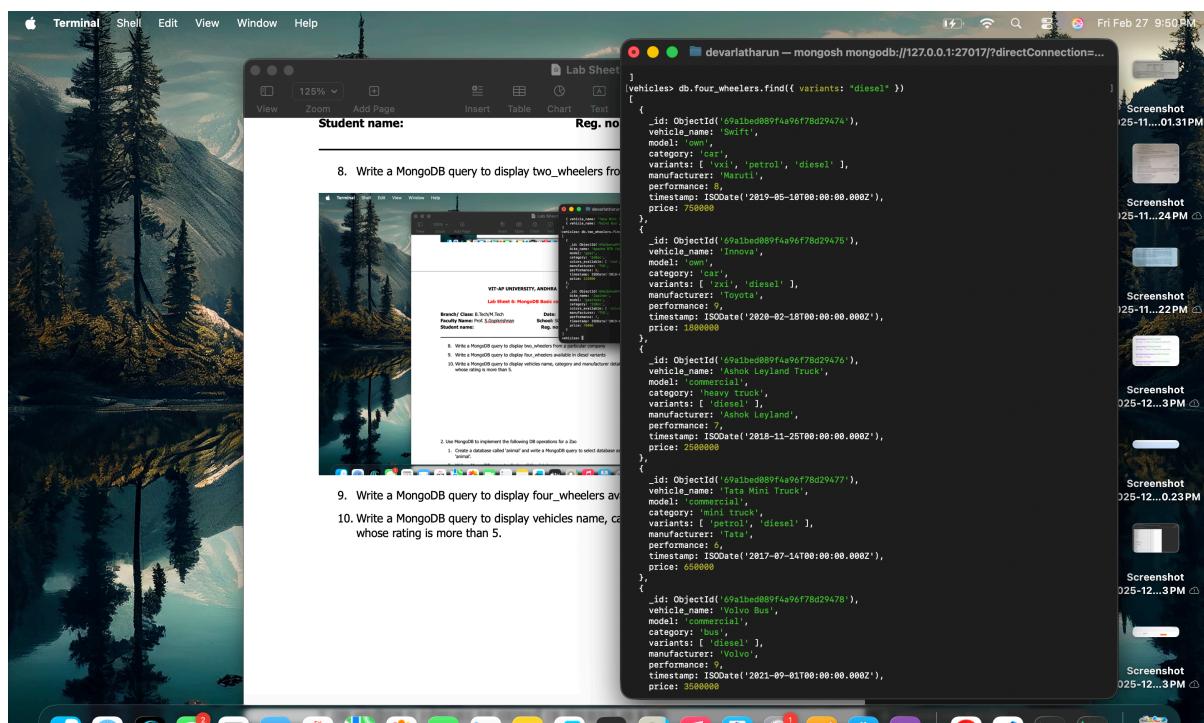
School: SCOPE

Reg. no.: 23BCE8818

8. Write a MongoDB query to display two_wheelers from a particular company



9. Write a MongoDB query to display four_wheelers available in diesel variants



Lab Sheet 6: MongoDB Basic commands

Branch/ Class: B.Tech/M.Tech

Date: 26-Feb-2026

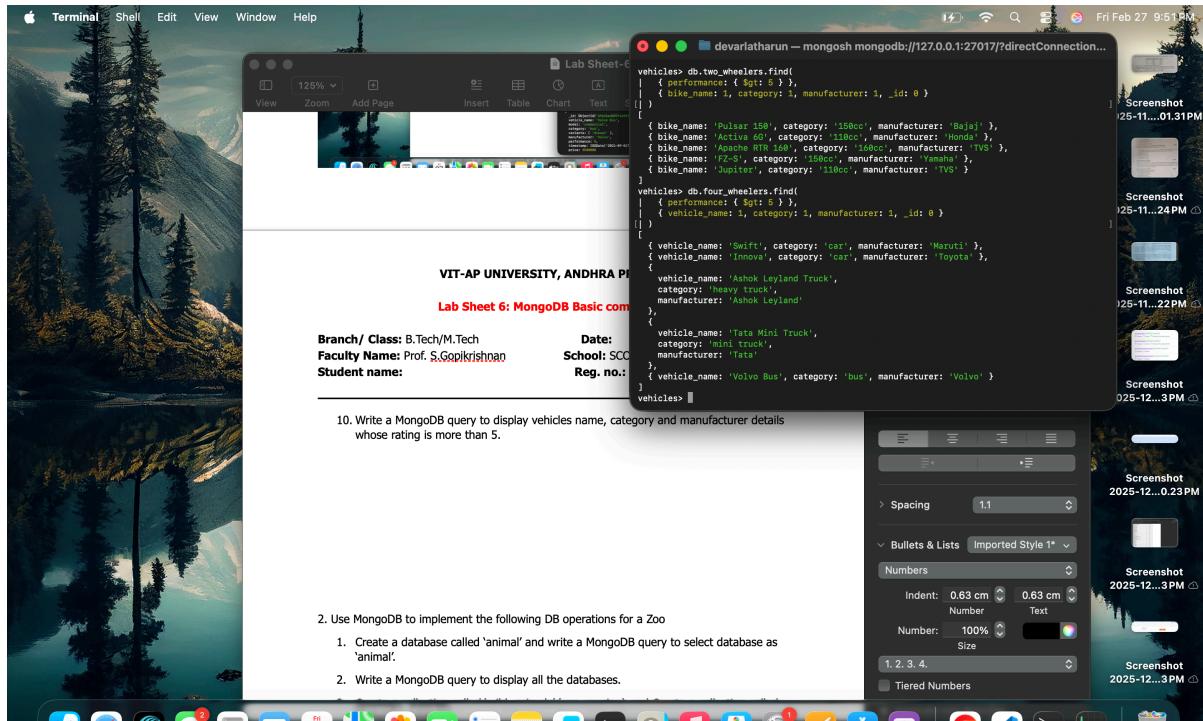
Faculty Name: Prof. S.Gopikrishnan

School: SCOPE

Student name: Devarla Tharun

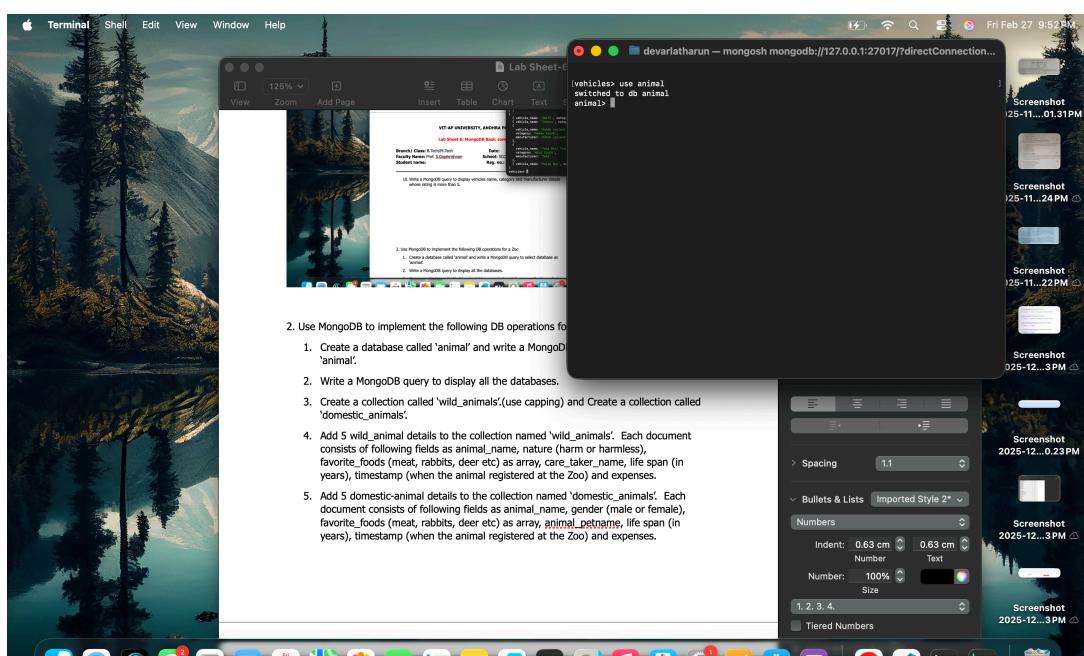
Reg. no.: 23BCE8818

10. Write a MongoDB query to display vehicles name, category and manufacturer details whose rating is more than 5.



2. Use MongoDB to implement the following DB operations for a Zoo

1. Create a database called 'animal' and write a MongoDB query to select database as 'animal'.



Lab Sheet 6: MongoDB Basic commands

Branch/ Class: B.Tech/M.Tech

Faculty Name: Prof. S.Gopikrishnan

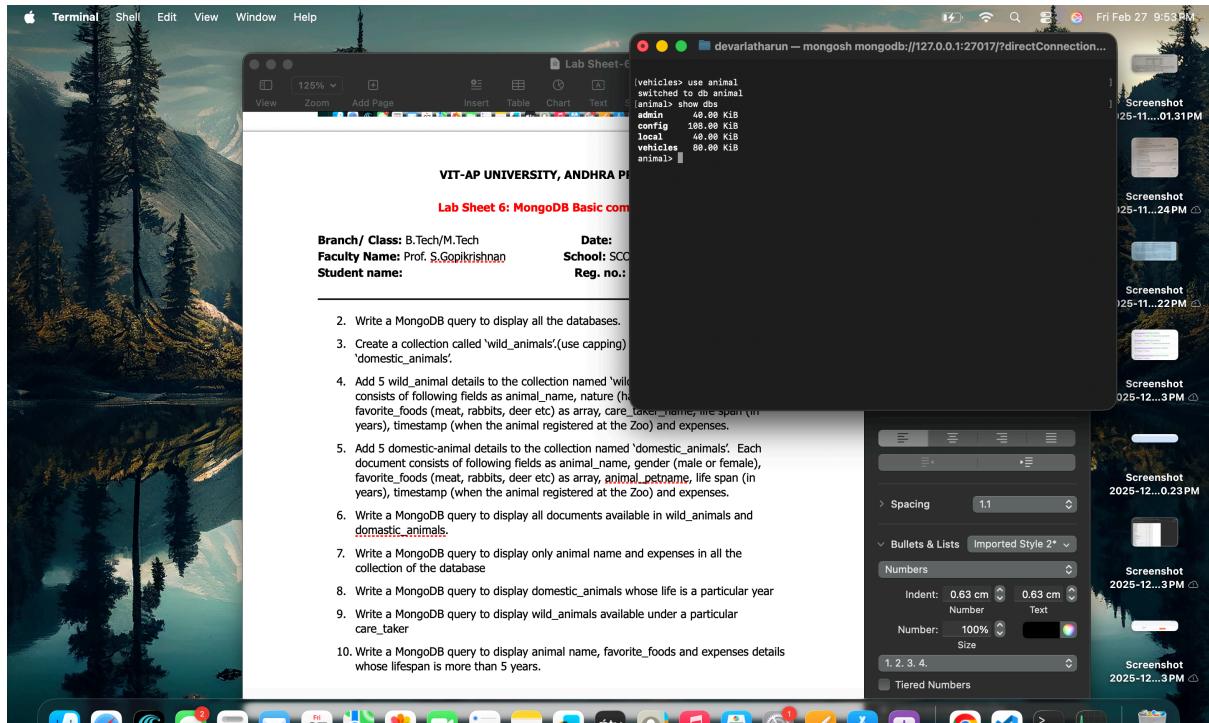
Student name: Devarla Tharun

Date: 26-Feb-2026

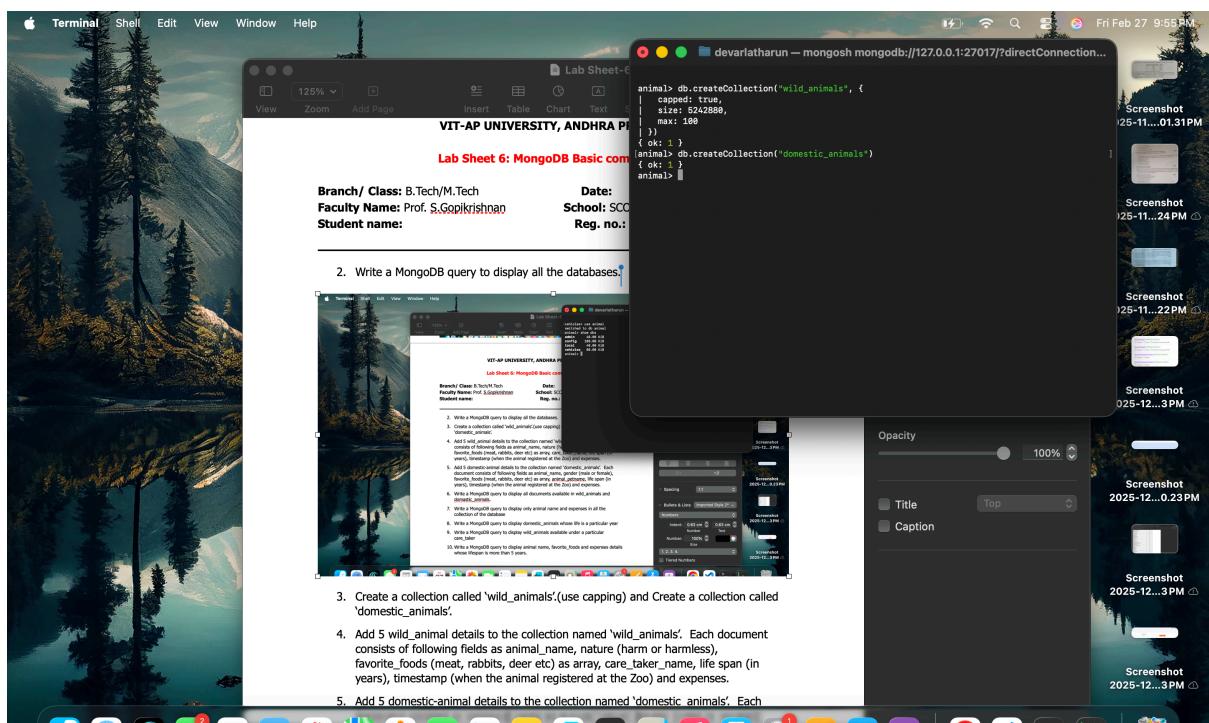
School: SCOPE

Reg. no.: 23BCE8818

- Write a MongoDB query to display all the databases.



- Create a collection called 'wild_animals'.(use capping) and Create a collection called 'domestic_animals'.



Lab Sheet 6: MongoDB Basic commands

Branch/ Class: B.Tech/M.Tech

Faculty Name: Prof. S.Gopikrishnan

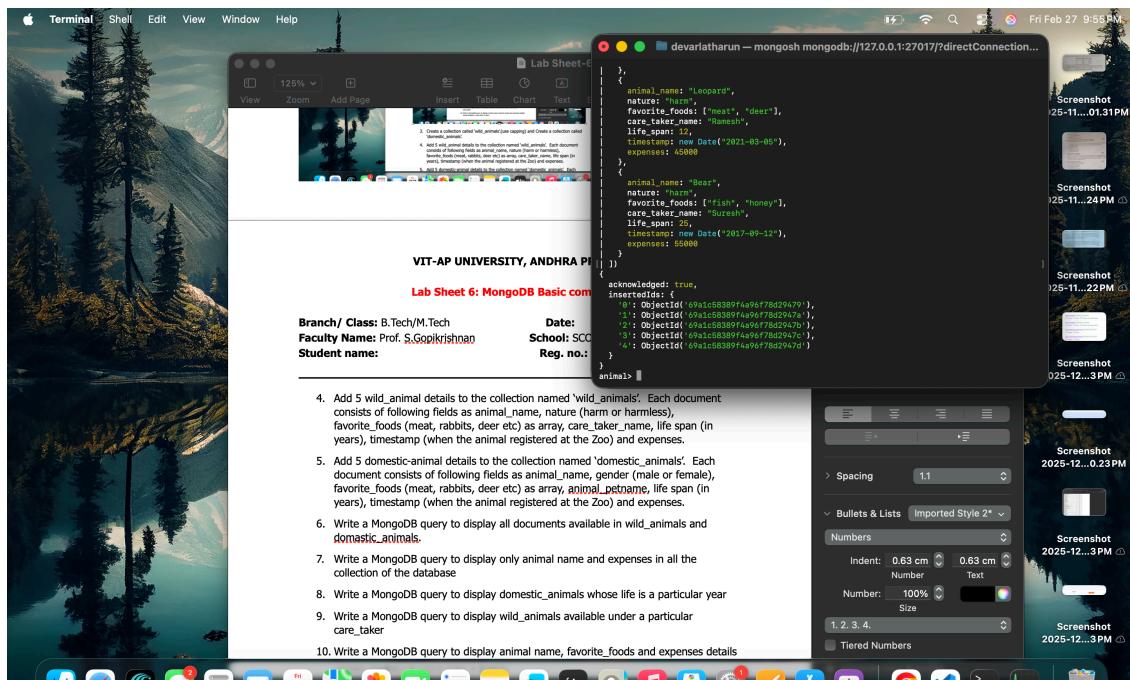
Student name: Devarla Tharun

Date: 26-Feb-2026

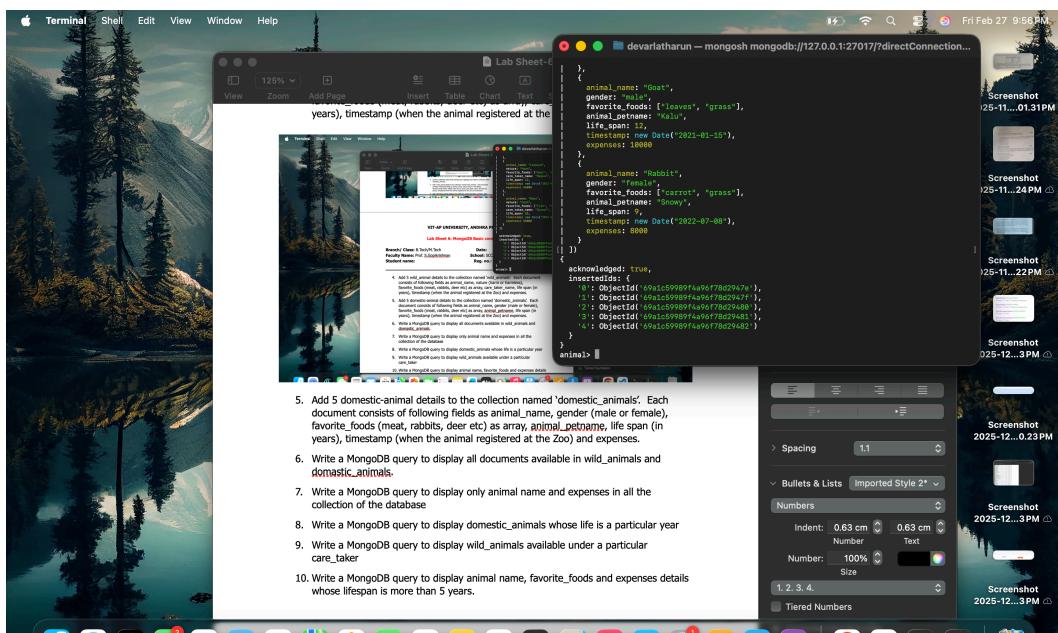
School: SCOPE

Reg. no.: 23BCE8818

- Add 5 wild_animal details to the collection named 'wild_animals'. Each document consists of following fields as animal_name, nature (harm or harmless), favorite_foods (meat, rabbits, deer etc) as array, care_taker_name, life span (in years), timestamp (when the animal registered at the Zoo) and expenses.



- Add 5 domestic-animal details to the collection named 'domestic_animals'. Each document consists of following fields as animal_name, gender (male or female), favorite_foods (meat, rabbits, deer etc) as array, animal_petname, life span (in years), timestamp (when the animal registered at the Zoo) and expenses.



Lab Sheet 6: MongoDB Basic commands

Branch/ Class: B.Tech/M.Tech

Faculty Name: Prof. S.Gopikrishnan

Student name: Devarla Tharun

Date: 26-Feb-2026

School: SCOPE

Reg. no.: 23BCE8818

6. Write a MongoDB query to display all documents available in wild_animals and domestic_animals.

```

Lab Sheet-6
Branch/ Class: B.Tech/M.Tech
Faculty Name: Prof. S.Gopikrishnan
Student name: Devarla Tharun
Date: 26-Feb-2026
School: SCOPE
Reg. no.: 23BCE8818

6. Write a MongoDB query to display all documents available in wild_animals and domestic_animals.
7. Write a MongoDB query to display only animal name available in collection of the database
8. Write a MongoDB query to display domestic_animals with
9. Write a MongoDB query to display wild_animals available in care_taker
10. Write a MongoDB query to display animal name, favorite_foods whose lifespan is more than 5 years.

animal> db.wild_animals.find()
[ {
  _id: ObjectId('69a1c59989f4a96f78d29479'),
  animal_name: 'Lion',
  nature: 'Harm',
  favorite_foods: [ 'meat', 'deer' ],
  care_taker_name: 'Ramesh',
  life_span: 14,
  timestamp: ISODate('2019-04-15T00:00:00.000Z'),
  expenses: 50000
},
{
  _id: ObjectId('69a1c58389f4a96f78d2947a'),
  animal_name: 'Tiger',
  nature: 'Harm',
  favorite_foods: [ 'meat', 'rabbit' ],
  care_taker_name: 'Suresh',
  life_span: 16,
  timestamp: ISODate('2020-06-10T00:00:00.000Z'),
  expenses: 40000
},
{
  _id: ObjectId('69a1c58389f4a96f78d2947b'),
  animal_name: 'Elephant',
  nature: 'Harmless',
  favorite_foods: [ 'grass', 'fruits' ],
  care_taker_name: 'Mahesh',
  life_span: 60,
  timestamp: ISODate('2018-01-20T00:00:00.000Z'),
  expenses: 80000
},
{
  _id: ObjectId('69a1c58389f4a96f78d2947c'),
  animal_name: 'Leopard',
  nature: 'Harm',
  favorite_foods: [ 'meat', 'deer' ],
  care_taker_name: 'Ramesh',
  life_span: 12,
  timestamp: ISODate('2021-03-05T00:00:00.000Z'),
  expenses: 45000
},
{
  _id: ObjectId('69a1c58389f4a96f78d2947d'),
  animal_name: 'Bear',
  nature: 'Harm',
  favorite_foods: [ 'fish', 'honey' ],
  care_taker_name: 'Suresh',
  life_span: 25,
  timestamp: ISODate('2017-09-12T00:00:00.000Z'),
  expenses: 55000
}
]
animal>

```

```

Lab Sheet-6
Branch/ Class: B.Tech/M.Tech
Faculty Name: Prof. S.Gopikrishnan
Student name: Devarla Tharun
Date: 26-Feb-2026
School: SCOPE
Reg. no.: 23BCE8818

6. Write a MongoDB query to display all documents available in wild_animals and domestic_animals.
7. Write a MongoDB query to display only animal name available in collection of the database
8. Write a MongoDB query to display domestic_animals with
9. Write a MongoDB query to display wild_animals available in care_taker
10. Write a MongoDB query to display animal name, favorite_foods whose lifespan is more than 5 years.

animal> db.domestic_animals.find()
[ {
  _id: ObjectId('69a1c59989f4a96f78d2947e'),
  animal_name: 'Dog',
  gender: 'Male',
  favorite_foods: [ 'meat', 'rice' ],
  animal_petname: 'Rocky',
  life_span: 13,
  timestamp: ISODate('2020-02-10T00:00:00.000Z'),
  expenses: 10000
},
{
  _id: ObjectId('69a1c59989f4a96f78d2947f'),
  animal_name: 'Cat',
  gender: 'Female',
  favorite_foods: [ 'fish', 'milk' ],
  animal_petname: 'Kitty',
  life_span: 15,
  timestamp: ISODate('2019-05-18T00:00:00.000Z'),
  expenses: 12000
},
{
  _id: ObjectId('69a1c59989f4a96f78d29480'),
  animal_name: 'Cow',
  gender: 'Female',
  favorite_foods: [ 'grass', 'hay' ],
  animal_petname: 'Gauri',
  life_span: 25,
  timestamp: ISODate('2017-11-25T00:00:00.000Z'),
  expenses: 20000
},
{
  _id: ObjectId('69a1c59989f4a96f78d29481'),
  animal_name: 'Goat',
  gender: 'Male',
  favorite_foods: [ 'leaves', 'grass' ],
  animal_petname: 'Kallo',
  life_span: 12,
  timestamp: ISODate('2017-01-15T00:00:00.000Z'),
  expenses: 10000
},
{
  _id: ObjectId('69a1c59989f4a96f78d29482'),
  animal_name: 'Rabbit',
  gender: 'Male',
  favorite_foods: [ 'carrot', 'grass' ],
  animal_petname: 'Snowy',
  life_span: 9,
  timestamp: ISODate('2022-07-08T00:00:00.000Z'),
  expenses: 8000
}
]
animal>

```

Lab Sheet 6: MongoDB Basic commands

Branch/ Class: B.Tech/M.Tech

Date: 26-Feb-2026

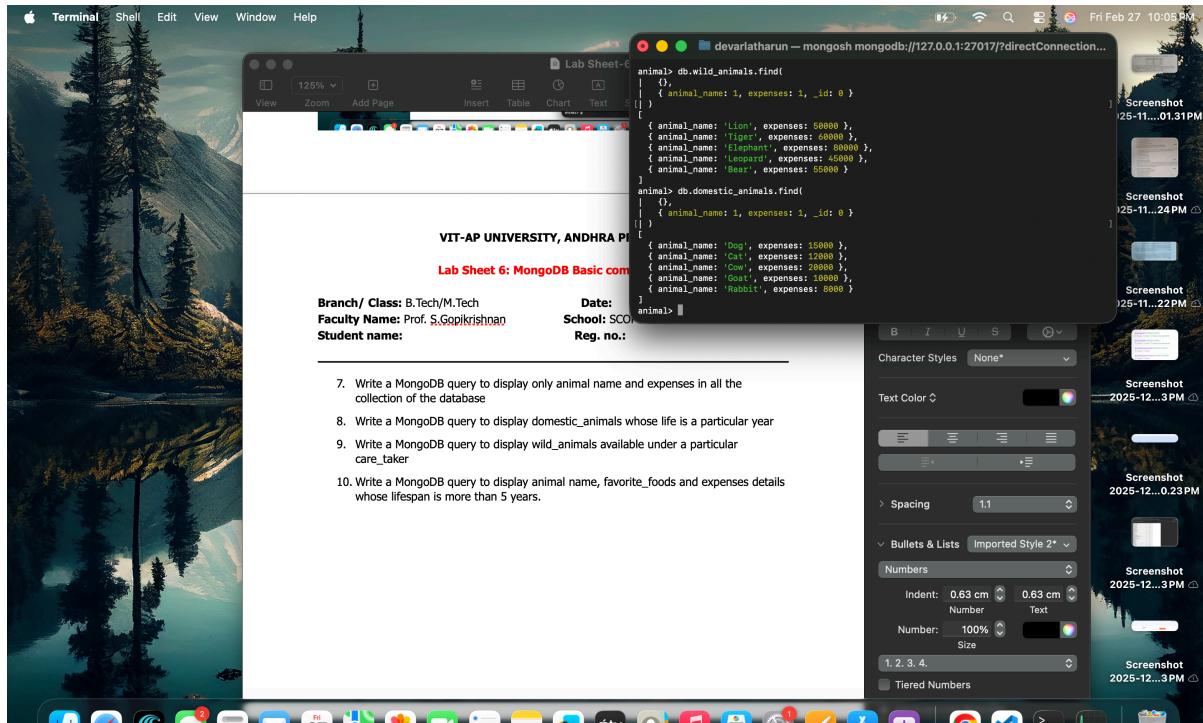
Faculty Name: Prof. S.Gopikrishnan

School: SCOPE

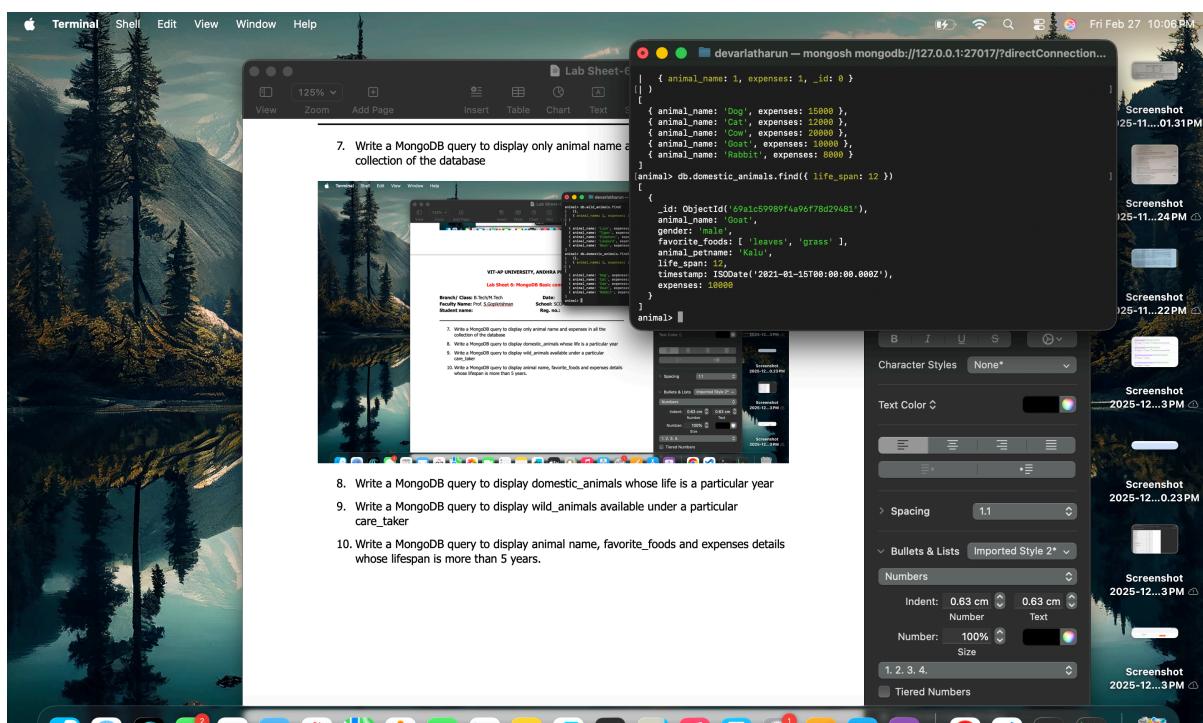
Student name: Devarla Tharun

Reg. no.: 23BCE8818

7. Write a MongoDB query to display only animal name and expenses in all the collection of the database



8. Write a MongoDB query to display domestic_animals whose life is a particular year



Lab Sheet 6: MongoDB Basic commands

Branch/ Class: B.Tech/M.Tech

Date: 26-Feb-2026

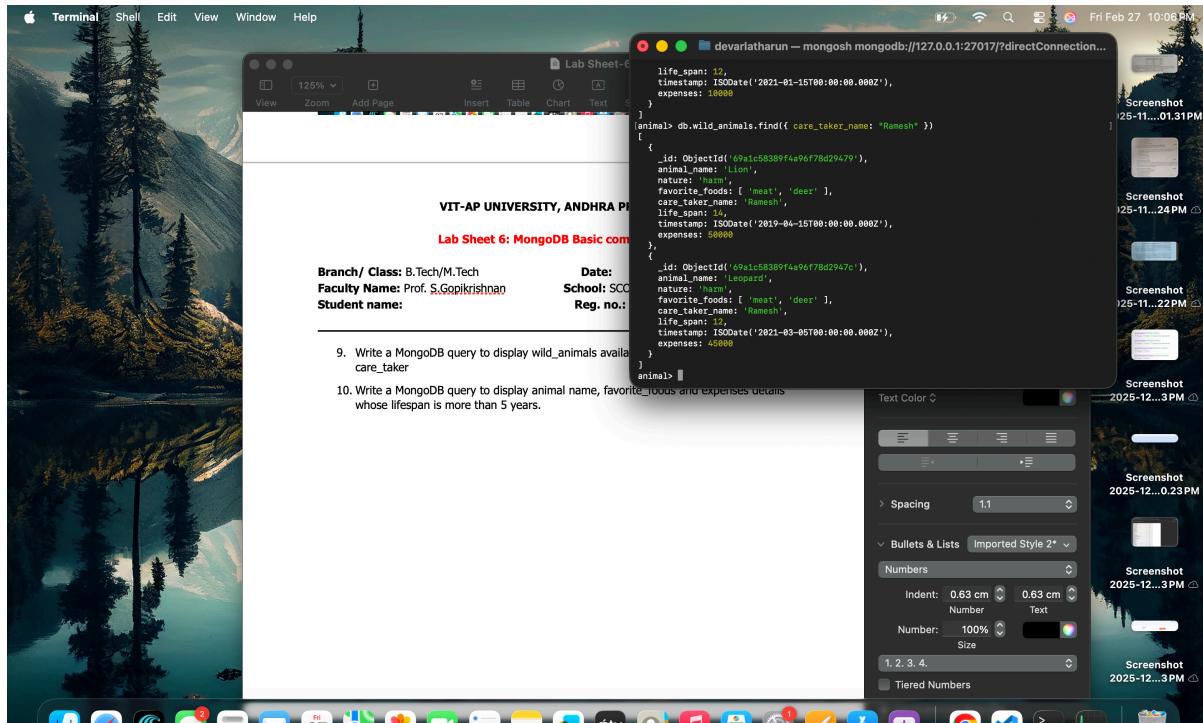
Faculty Name: Prof. S.Gopikrishnan

School: SCOPE

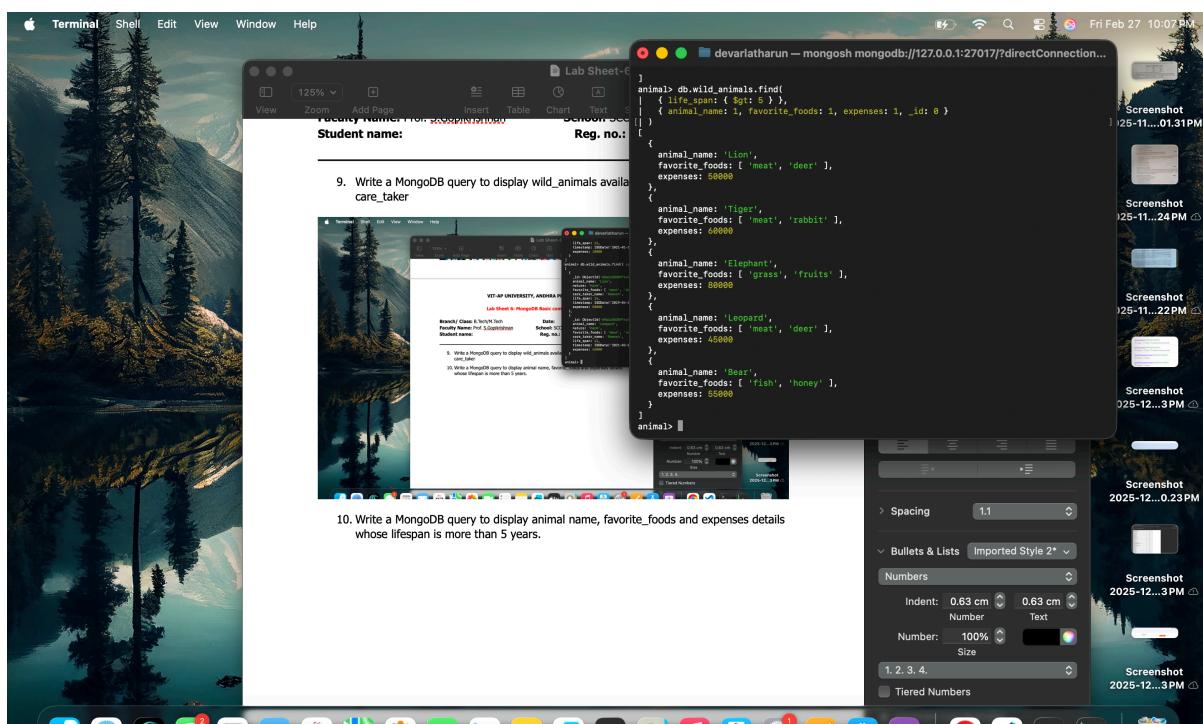
Student name: Devarla Tharun

Reg. no.: 23BCE8818

9. Write a MongoDB query to display wild_animals available under a particular care_taker



10. Write a MongoDB query to display animal name, favorite_foods and expenses details whose lifespan is more than 5 years.



Lab Sheet 6: MongoDB Basic commands

Branch/ Class: B.Tech/M.Tech

Date: 26-Feb-2026

Faculty Name: Prof. S.Gopikrishnan

School: SCOPE

Student name: Devarla Tharun

Reg. no.: 23BCE8818

