

Лабораторна робота №14

з дисципліни
«Організація баз даних та знань»

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Створимо структуру в MongoDB схожу до Лабораторної роботи №1

```
> show collections
client
contract
department
offer
thing
worker
>
```

1. Колекція Клієнт

```
> db.client.find({}).pretty()
```

```
{
  "_id" : 1,
  "first_name" : "Ivan",
  "last_name" : "Boiko",
  "phone" : "(325) 906-5437",
  "pin" : 1280859241
}
{
  "_id" : 2,
  "first_name" : "George",
  "last_name" : "Johns",
  "phone" : "(632) 697-6822",
  "pin" : 3368277058
}
{
  "_id" : 3,
  "first_name" : "Ibrahim",
  "last_name" : "West",
  "phone" : "(619) 847-4979",
  "pin" : 6958982904
}
{
  "_id" : 4,
  "first_name" : "Frederick",
  "last_name" : "Allen",
  "phone" : "(580) 981-5632",
```

```

    "pin" : 1519184433
  }
{
  "_id" : 5,
  "first_name" : "Karter",
  "last_name" : "Reynolds",
  "phone" : "(565) 442-0933",
  "pin" : 1093368191
}
{
  "_id" : 6,
  "first_name" : "Ivan",
  "last_name" : "Melnychenko",
  "phone" : "(123) 951-3277",
  "pin" : 6598732123
}
{
  "_id" : 7,
  "first_name" : "Ivan",
  "last_name" : "Kit",
  "phone" : "(654) 934-3924",
  "pin" : 3217895646
}

```

2. Колекція Пропозиція

```
> db.offer.find({}).pretty()
```

```

{
  "_id" : 1,
  "title" : "Term Life Insurance for 10 years",
  "description" : "Be healthy and protected for 10 years",
  "price" : 7.3,
  "refund" : 10000,
  "category" : "Health/Life Insurance"
}
{

```

```

    "_id" : 2,
    "title" : "Whole Life Insurance",
    "description" : "Be healthy and protected for whole life",
    "refund" : "Only calculated price",
    "category" : "Health/Life Insurance"
  }
{
  "_id" : 3,
  "title" : "Car Insurance",
  "description" : "Have a car protection",
  "price" : 500,
  "refund" : 1000,
  "category" : "Auto Insurance"
}
{
  "_id" : 4,
  "title" : "Medicare Supplement Insurance",
  "description" : "Medicare Supplement Insurance also known as MedSup or Medigap",
  "price" : 150,
  "refund" : 500,
  "category" : "Health/Life Insurance"
}

```

3. Колекція Відділ

```

> db.department.find({}).pretty()
{
  "_id" : 1,
  "address" : "44 Oak Meadow Ave. Mcallen, TX 78501",
  "workers" : [
    1,
    2,
    3
  ]
}
{

```

```

    "_id" : 2,
    "address" : "8 Bridle Drive, New York, NY 12553",
    "workers" : [
      4,
      5,
      6,
      7,
      8,
      9
    ]
  }
}

```

4. Колекція Річ

```

> db.thing.find({}).pretty()
{
  "_id" : 1,
  "type" : "Hand",
  "details" : [
    {
      "report" : "Medical Report",
      "registration_number" : "BA-25-75"
    }
  ]
}
{
  "_id" : 2,
  "type" : "Car",
  "details" : [
    {
      "report" : "Engine Report",
      "registration_number" : "123456789"
    }
  ]
}
{
  "_id" : 3,
  "type" : "Life",
  "details" : [
    {
      "report" : "Medical Report",
      "registration_number" : "BD-62-75"
    }
  ]
}
{
  "_id" : 4,
  "type" : "Infectial deseases",

```

```

    "details" : [
      {
        "report" : "Medical Report",
        "registration_number" : "BC-23-75"
      }
    ]
  }
}
{
  "_id" : 5,
  "type" : "Car",
  "details" : [
    {
      "report" : "Engine Report",
      "registration_number" : "567891324"
    }
  ]
}
{
  "_id" : 6,
  "type" : "Car",
  "details" : [
    {
      "report" : "Engine Report",
      "registration_number" : "321654987"
    },
    {
      "report" : "Rearrangement Report",
      "registration_number" : "230159897"
    }
  ]
}
}

```

5. Колекція Працівник

```
> db.worker.find({}).pretty()
```

```

{
  "_id" : 1,
  "first_name" : "Elliot",
  "last_name" : "Livingston",
  "phone" : "(243) 613-7611",
  "incumbency" : "manager"
}
{
  "_id" : 2,
  "first_name" : "Luke",
  "last_name" : "Harrison",
  "phone" : "(595) 811-8574",
  "incumbency" : "cashier"
}
{
  "_id" : 3,
  "first_name" : "Harley",

```

```

    "last_name" : "Townsend",
    "phone" : "(648) 489-4254",
    "incumbency" : "manager"
  }
  {
    "_id" : 4,
    "first_name" : "Veronica",
    "last_name" : "Berg",
    "phone" : "(570) 705-4696",
    "incumbency" : "worker"
  }
  {
    "_id" : 5,
    "first_name" : "Kasey",
    "last_name" : "Willis",
    "phone" : "(319) 296-0312",
    "incumbency" : "cashier"
  }
  {
    "_id" : 6,
    "first_name" : "Benjamin",
    "last_name" : "Hendricks",
    "phone" : "(908) 934-5462",
    "incumbency" : "cashier"
  }
  {
    "_id" : 7,
    "first_name" : "Amanda",
    "last_name" : "Joyce",
    "phone" : "(783) 380-0597",
    "incumbency" : "cashier"
  }
  {
    "_id" : 8,
    "first_name" : "Emmy",
    "last_name" : "Rodgers",
    "phone" : "(544) 496-1312",
    "incumbency" : "manager+"
  }
  {
    "_id" : 9,
    "first_name" : "Cameron",
    "last_name" : "Weaver",
    "phone" : "(999) 906-8913",
    "incumbency" : "manager"
  }
}

```

6. Колекція Контракт

```

> db.contract.find({}).pretty()
{
  "_id" : 1,
  "date_start" : ISODate("2020-04-26T16:00:00Z"),
  "date_end" : ISODate("2021-04-26T16:00:00Z"),
  "info" : "Standart packet",

```

```

    "client_id" : 1,
    "offer_id" : 1,
    "department_id" : 2,
    "thing_id" : 1
  }
  {
    "_id" : 2,
    "date_start" : ISODate("2020-03-01T00:00:00Z"),
    "date_end" : ISODate("2021-03-01T00:00:00Z"),
    "info" : "Full packet. Accident 26.05.2020 15.20. Police report CA-2315-6489",
    "client_id" : 2,
    "offer_id" : 3,
    "department_id" : 1,
    "thing_id" : 2,
    "happened" : true,
    "payed" : true
  }
  {
    "_id" : 3,
    "date_start" : ISODate("2021-10-19T00:00:00Z"),
    "client_id" : 3,
    "offer_id" : 2,
    "department_id" : 1,
    "thing_id" : 3
  }
  {
    "_id" : 4,
    "date_start" : ISODate("2020-05-19T00:00:00Z"),
    "client_id" : 4,
    "offer_id" : 1,
    "department_id" : 2,
    "thing_id" : 4
  }
  {
    "_id" : 5,
    "date_start" : ISODate("2020-07-03T00:00:00Z"),
    "date_end" : ISODate("2021-07-03T00:00:00Z"),
    "info" : "Standart packet",
    "client_id" : 5,
    "offer_id" : 3,
    "department_id" : 1,
    "thing_id" : 5
  }
  {
    "_id" : 6,
    "date_start" : ISODate("2020-05-19T00:00:00Z"),
    "date_end" : ISODate("2021-05-19T00:00:00Z"),
    "info" : "Full packet",
    "client_id" : 4,
    "offer_id" : 3,
    "department_id" : 2,
    "thing_id" : 6
  }
}

```


7. Виконаємо оновлення в таблиці Працівник

```
> db.worker.update({first_name:"Luke", last_name:"Harrison"}, {$set:{phone:"(321) 351-6542"}})
```

```
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
```

```
> db.worker.find({first_name:"Luke", last_name:"Harrison"})
```

```
{ "_id" : 2, "first_name" : "Luke", "last_name" : "Harrison", "phone" : "(321) 351-6542",  
  "incumbency" : "cashier" }
```

```
>
```

8. Виконаємо видалення з таблиці Працівник

```
> db.worker.remove({first_name:"Luke", last_name:"Harrison"})
```

```
WriteResult({ "nRemoved" : 1 })
```

```
> db.worker.find({first_name:"Luke", last_name:"Harrison"})
```

```
>
```

Висновок: на цій лабораторній роботі був розглянутий базовий функціонал нереляційної БД MongoDB, їх призначення, створення та використання. Була створена структура БД та заповнена відповідно до Лабораторної роботи №1.