Milestone: NoSQL Implementation
Project: Personalized Period Tracker with Analytics and Social Sync

Group 8
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Percentage of Effort Contributed by Student1: 50%

Percentage of Effort Contributed by Student2: 50%

Signature of Student 1:

Signature of Student 2:

Submission Date: 11-30-2025

1. **Find all users that are not active**

   db.User.find({ active: false})

QUERY RESULTS: **1-1 OF 1**

```
_id: 6
first_name : "Meena"
last_name : "Gupta"
email : "meena.gupta@example.com"
password : "hashed_pw6"
username : "meenag"
date_of_birth : 1992-12-04T00:00:00.000+00:00
weight : 63.4
height : 167
active : false
```

2. **Find period record entries for a user**

   db.Period_record.find({ user_id: 1 })

QUERY RESULTS: **1-3 OF 3**

```
_id: 1
user_id : 1
start_date : 2024-01-05T00:00:00.000+00:00
end_date : 2024-01-09T00:00:00.000+00:00
```

```
_id: 2
user_id : 1
start_date : 2024-02-02T00:00:00.000+00:00
end_date : 2024-02-06T00:00:00.000+00:00
```

```
_id: 3
user_id : 1
start_date : 2024-03-01T00:00:00.000+00:00
end_date : 2024-03-05T00:00:00.000+00:00
```

3. Count medications taken per user

```
db.Medication_Log.aggregate([
  { $group: { _id: "$user_id", total_medications: { $sum: 1 } } }
])
```

STAGE OUTPUT   OPTIONS ▾
Sample of 9 documents

total_medications : 3
_id: 10

_id: 3
total_medications : 15

_id: 8
total_medications : 3

_id: 6
total_medications : 3

_id: 9
total_medications : 3

_id: 5
total_medications : 3

total_medications : 3
_id: 7

_id: 2
total_medications : 15

_id: 1
total_medications : 15

4. Find pending friend requests initiated by a user

```
db.Friendship.find({
  status: "Pending",
  initiatedBy: { $exists: true }
})
```

```
_id: 2
user1 : 1
user2 : 3
status : "Pending"
initiatedBy : 3
```

```
_id: 6
user1 : 5
user2 : 7
status : "Pending"
initiatedBy : 7
```

5. Flow intensity distribution

```
db.Flow.aggregate([
  { $group: { _id: "$flow_type", count: { $sum: 1 } } }
])
```

STAGE OUTPUT   OPTIONS ▾
Sample of 4 documents

```
_id: "Light"
count : 7
```

```
_id: "Heavy"
count : 10
```

```
_id: "Spotting"
count : 3
```

```
_id: "Medium"
count : 11
```

6. Count medications per medication_name

```
db.Medication_Log.aggregate([
  {
    $group: {
      _id: "$medication_name",
      total: { $sum: 1 }
    }
  }
])
```

STAGE OUTPUT   OPTIONS ▾

Sample of 8 documents

```
_id: "Tranexamic Acid"
total : 5
```

```
_id: "Dolo 650"
total : 14
```

```
total : 8
_id: "Cyclopam"
```

```
_id: "Iron Supplement"
total : 9
```

```
_id: "Mefenamic Acid"
total : 7
```

```
_id: "Feronia XT"
total : 7
```

```
_id: "Vitamin C"
total : 4
```

```
_id: "Meftal-Spas"
total : 9
```

7. Number of cycles with period length > 5 days

db.Cycles.aggregate([
  {
   $match: { period_len: { $gt: 5 } }
  },
  {
   $count: "long_period_cycles"
  }
])

STAGE OUTPUT

OPTIONS ▾

Sample of 7 documents

```
period_len : 6
_id: 2
record_id : 2
user_id : 1
cycle_len : 28
```

```
_id: 6
record_id : 6
user_id : 2
cycle_len : 30
period_len : 6
```

```
_id: 10
record_id : 10
user_id : 3
cycle_len : 34
period_len : 6
```

```
period_len : 6
_id: 14
record_id : 14
user_id : 4
cycle_len : 33
```

```
period_len : 6
_id: 18
record_id : 18
user_id : 6
cycle_len : 31
```

8. Find all logs where severity is Moderate or High

```
db.Symptoms.find({
  severity: { $in: ["Moderate", "High"] }
})
```

QUERY RESULTS: **1-20 OF MANY**

```
_id: 1
user_id : 1
symptom_type : "Cramps"
symptom_date : 2024-02-09T00:00:00.000+00:00
severity : "Moderate"
symptom_notes : "Lower abdominal cramps in morning, eased with rest."


_id: 3
user_id : 1
symptom_type : "Fatigue"
symptom_date : 2024-04-09T00:00:00.000+00:00
severity : "Moderate"
```

9.Find active reminders per user

```
db.Reminders.find({
  user_id: 1,
  reminder_active: true
})
```

QUERY RESULTS: **1-2 OF 2**

```
_id: 1
user_id : 1
reminder_type : "Period"
reminder_active : true


_id: 2
user_id : 1
reminder_type : "Phase"
reminder_active : true
```

10. Average entries per symptom type

```
db.Symptoms.aggregate([
  {
    $group: {
      _id: "$symptom_type",
      total: { $sum: 1 }
    }
  }
])
```

STAGE OUTPUT   OPTIONS ▾
Sample of 10 documents

_id: "Headache"
total : 6

_id: "Acne"
total : 5

total : 5
_id: "Fatigue"

_id: "Anxiety"
total : 3

_id: "Nausea"
total : 3

_id: "Bloating"
total : 6

_id: "Insomnia"
total : 5

_id: "Cramps"
total : 7

_id: "Hot Flashes"
total : 2

11. Aggregated Count of active reminders per user

```
db.Reminders.aggregate([
  {
   $match: { reminder_active: true }
  },
  {
   $group: {
     _id: "$user_id",
     active_reminder_count: { $sum: 1 }
   }
  }
])
```

STAGE OUTPUT   OPTIONS ▾
Sample of 10 documents

```
_id: 10
active_reminder_count : 3
```

```
_id: 3
active_reminder_count : 3
```

```
_id: 9
active_reminder_count : 3
```

```
_id: 8
active_reminder_count : 3
```

```
_id: 4
active_reminder_count : 3
```

```
_id: 6
active_reminder_count : 3
```

```
_id: 5
active_reminder_count : 3
```

```
_id: 7
active_reminder_count : 3
```

```
_id: 1
active_reminder_count : 3
```