بسم الله الرحمن الرحیم

تمرین چهارم پایگاه داده پیشرفته

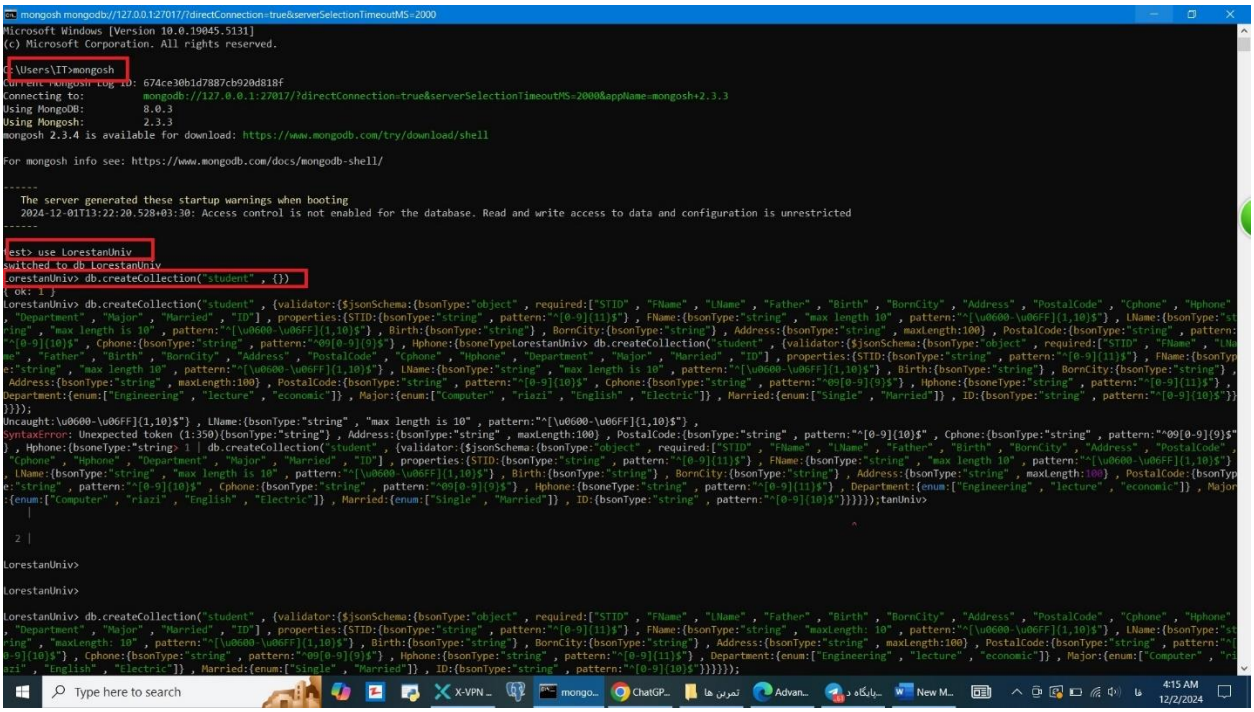
ریحانه گودرزی

کار با دیتا بیس mongo DB

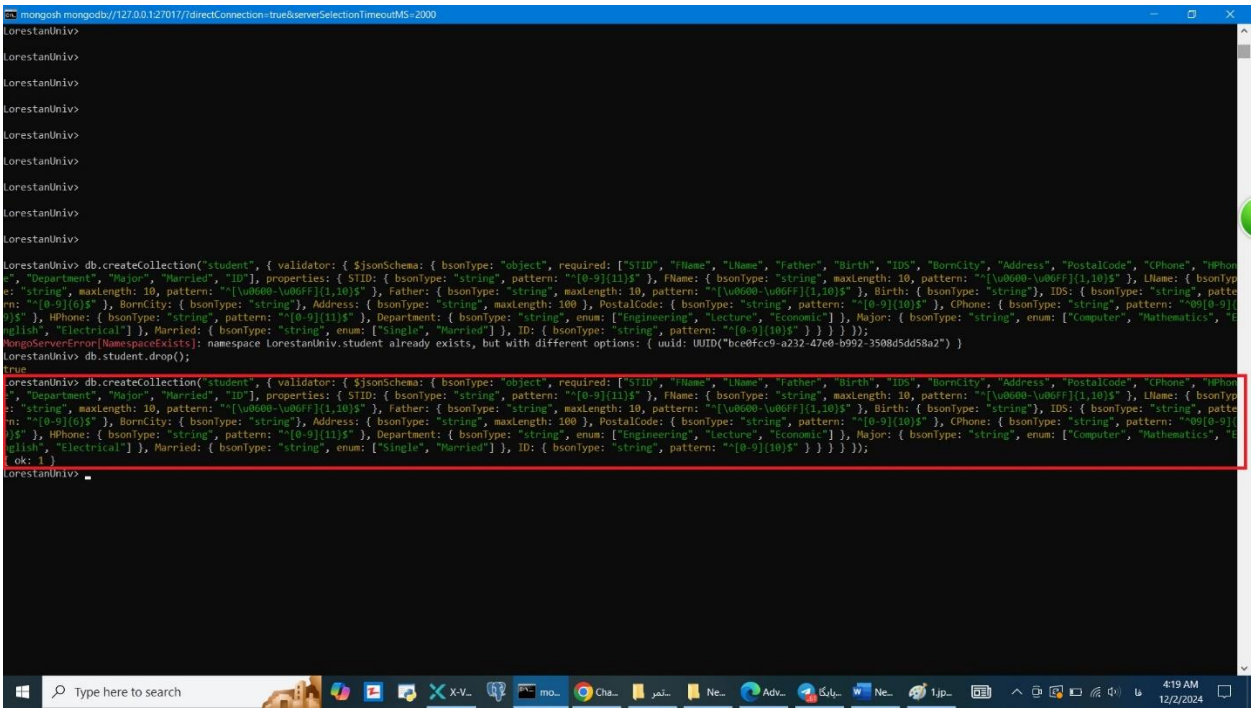
استاد جناب آقای دکتر رشنو

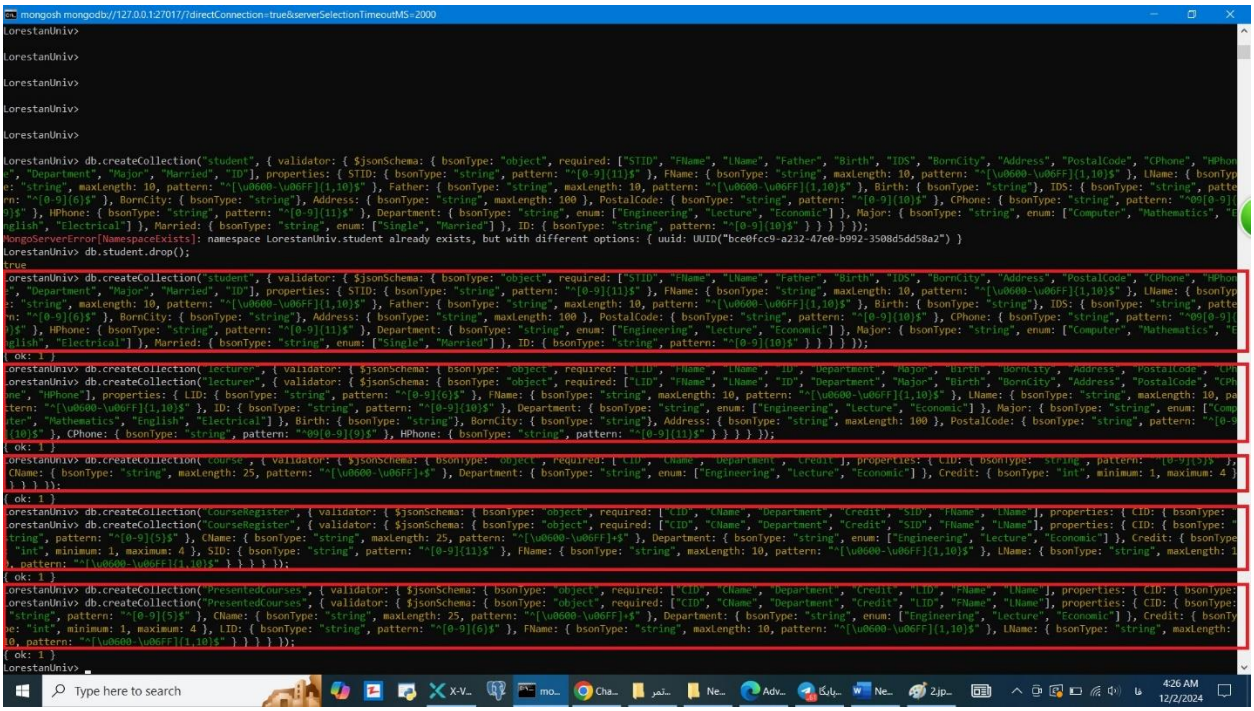
آذر ۱۴۰۳

۱.ورود به mongodb ۲. ایجاد پایگاه داده مورد نظر ۳.ایجاد کالکشن(جدول)

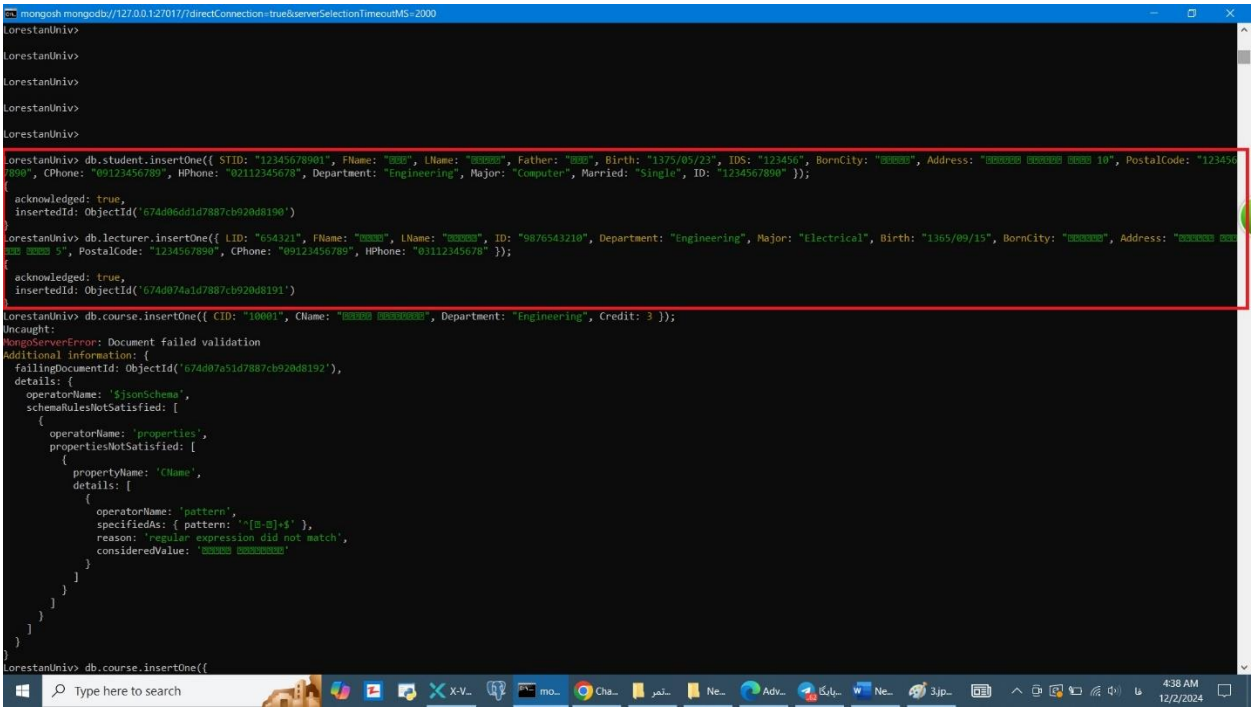


۴. ایجاد جداول خواسته شده در تمرین

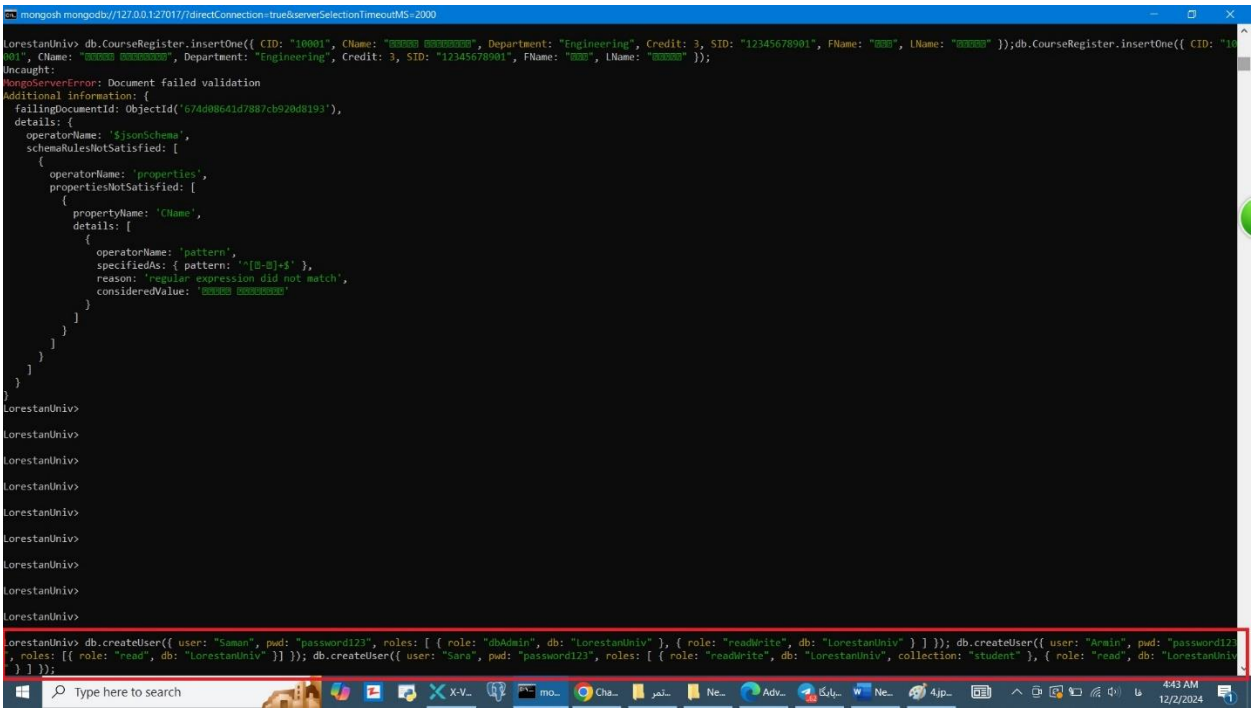




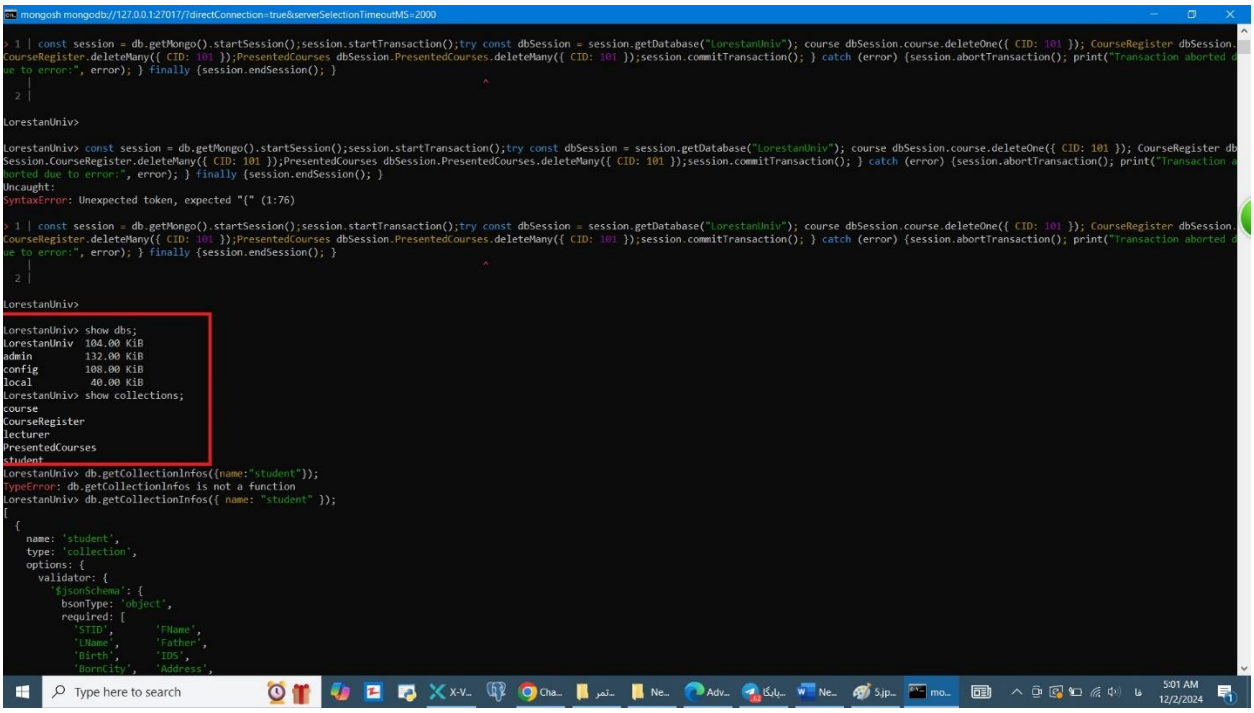
۵. درج داده در جداول:



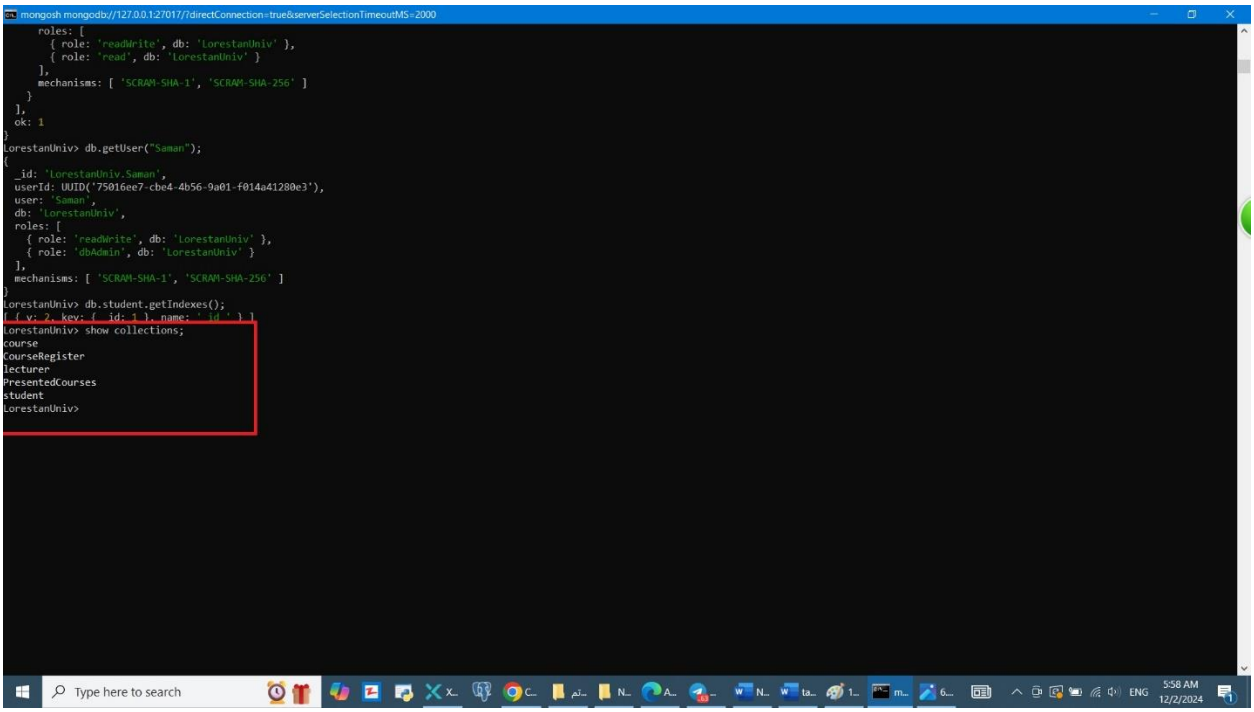
۶. ایجاد کاربران با سطوح دسترسی:



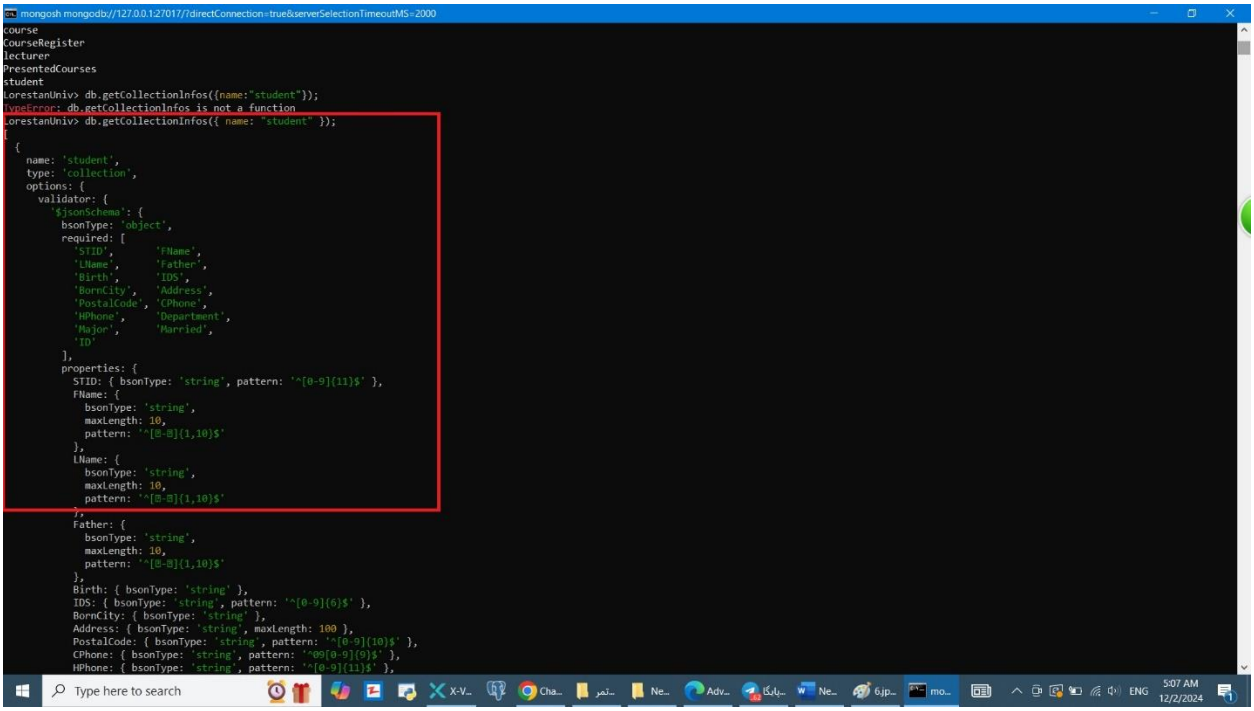
۷.دستور مشاهده پایگاه داده موجود:

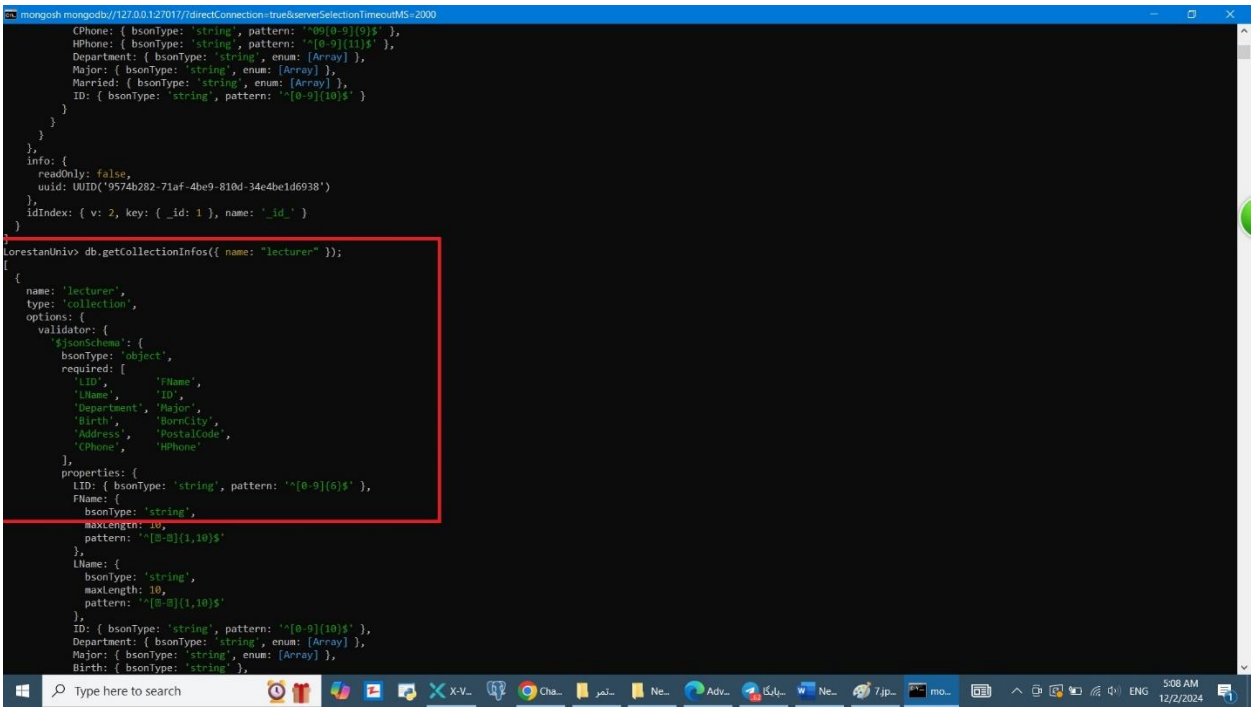


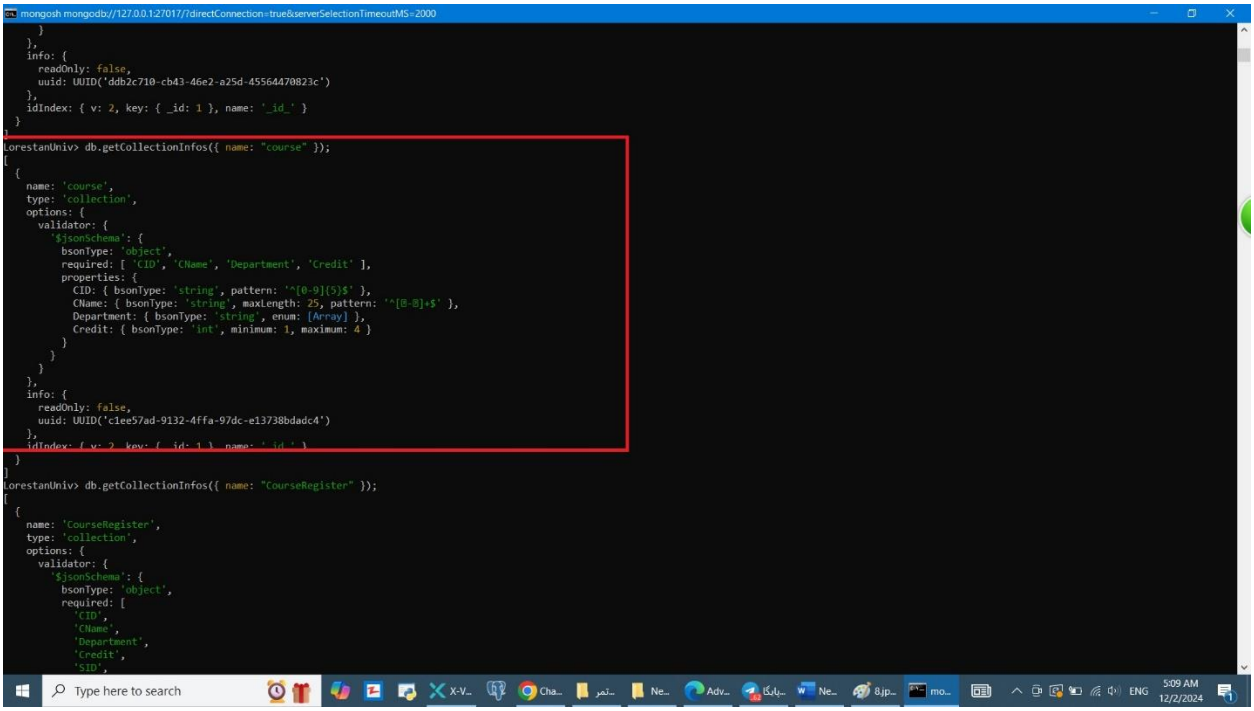
۸.مشاهده کالکشن های موجود در این پایگاه داده :

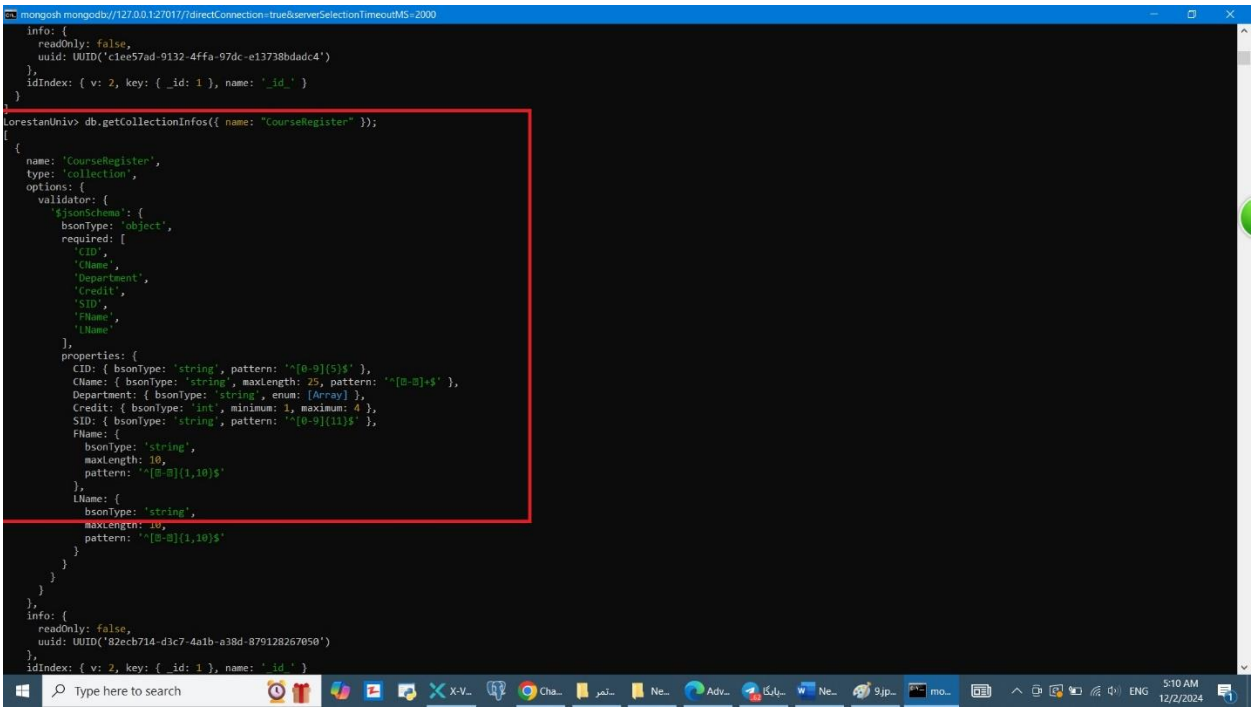


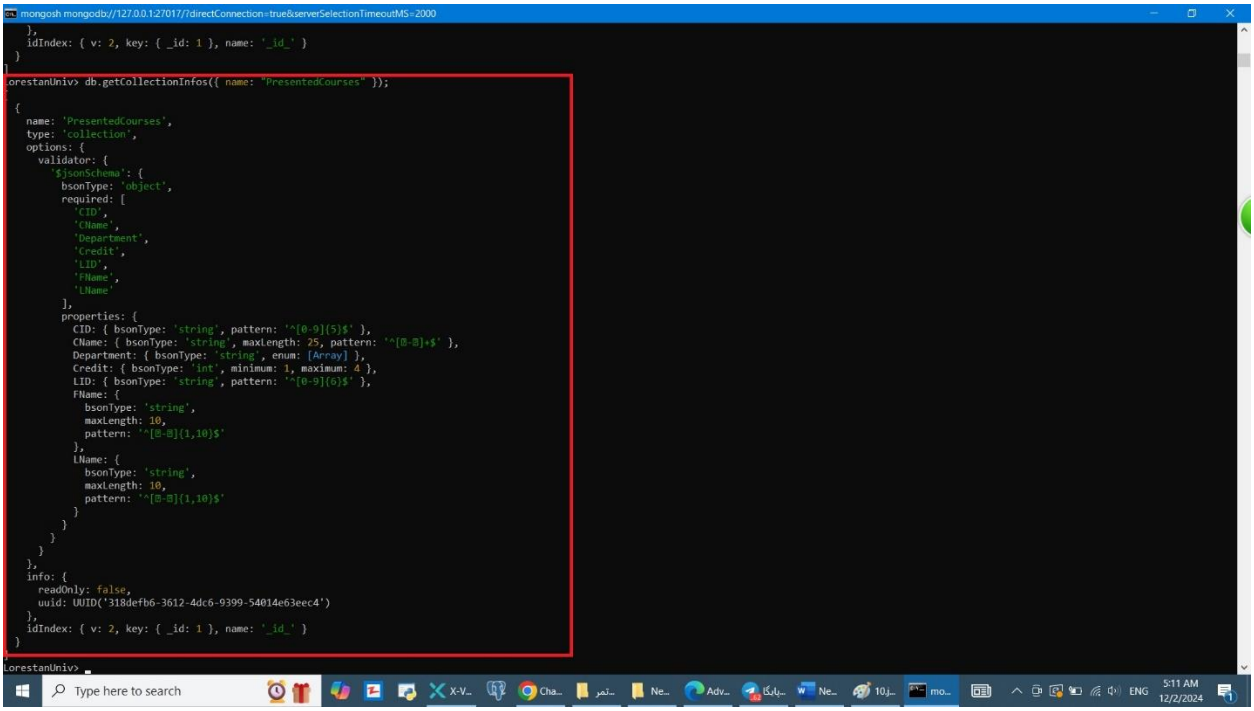
۹. مشاهده اطلاعات کالکشن ها:



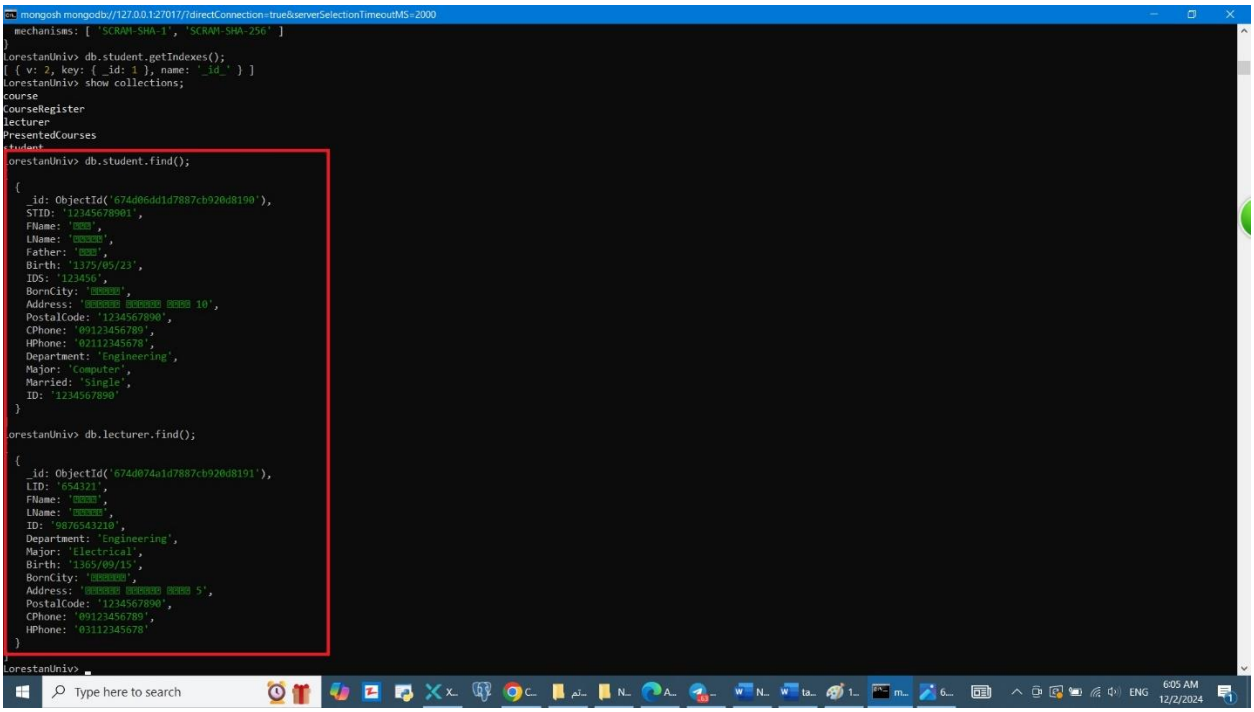

mongosh mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000
CPhone: { bsonType: 'string', pattern: '^09[0-9]{9}$' },
HPhone: { bsonType: 'string', pattern: '^[0-9]{11}$' },
Department: { bsonType: 'string', enum: [Array] },
Major: { bsonType: 'string', enum: [Array] },
Married: { bsonType: 'string', enum: [Array] },
ID: { bsonType: 'string', pattern: '^[0-9]{10}$' }
readOnly: false,
uuid: UUID('9574b282-71af-4be9-810d-34e4be1d6938')
idIndex: { v: 2, key: { _id: 1 }, name: '_id_' }
LorestanUniv> db.getCollectionInfos({ name: "lecturer" });
name: 'lecturer',
type: 'collection',
options: {
validator: {
'$jsonSchema': {
bsonType: 'object',
required: [
'LID', 'FName',
'LName', 'ID',
'Department', 'Major',
'Birth', 'BornCity',
'Address', 'PostalCode',
'CPhone', 'HPhone'
properties: {
LID: { bsonType: 'string', pattern: '^[0-9]{6}$' },
FName: {
bsonType: 'string',
maxLength: 10,
pattern: '^[ا-ی]{1,10}$'
LName: {
bsonType: 'string',
maxLength: 10,
pattern: '^[ا-ی]{1,10}$'
ID: { bsonType: 'string', pattern: '^[0-9]{10}$' },
Department: { bsonType: 'string', enum: [Array] },
Major: { bsonType: 'string', enum: [Array] },
Birth: { bsonType: 'string' },
Type here to search
ENG
5:08 AM
12/2/2024


mongosh mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000
readOnly: false,
uuid: UUID('ddb2c710-cb43-46e2-a25d-45564470823c')
idIndex: { v: 2, key: { _id: 1 }, name: '_id_' }
LorestanUniv> db.getCollectionInfos({ name: "course" });
name: 'course',
type: 'collection',
options: {
validator: {
'$jsonSchema': {
bsonType: 'object',
required: ['CID', 'CName', 'Department', 'Credit'],
properties: {
CID: { bsonType: 'string', pattern: '^[0-9]{5}$' },
CName: { bsonType: 'string', maxLength: 25, pattern: '^[ا-ی]+$' },
Department: { bsonType: 'string', enum: [Array] },
Credit: { bsonType: 'int', minimum: 1, maximum: 4 }
readOnly: false,
uuid: UUID('c1ee57ad-9132-4ffa-97dc-e13738bdadc4')
LorestanUniv> db.getCollectionInfos({ name: "CourseRegister" });
name: 'CourseRegister',
type: 'collection',
options: {
validator: {
'$jsonSchema': {
bsonType: 'object',
required: [
'CID',
'CName',
'Department',
'Credit',
'SID',
Type here to search
ENG
5:09 AM
12/2/2024

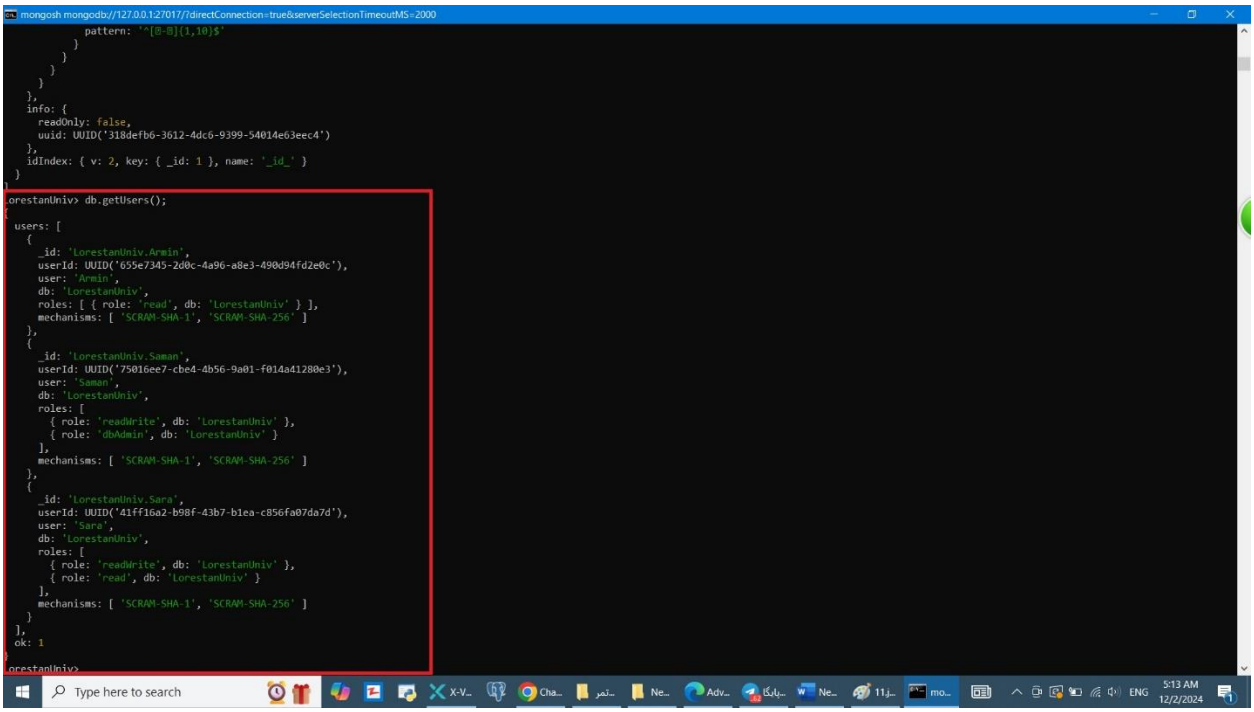

mongosh mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000
LorestanUniv> db.getCollectionInfos({ name: "CourseRegister" });
Type here to search
ENG
5:10 AM
12/2/2024


mongosh mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000
LorestanUniv> db.getCollectionInfos({ name: "PresentedCourses" });
LorestanUniv>
Type here to search
ENG
5:11 AM
12/2/2024

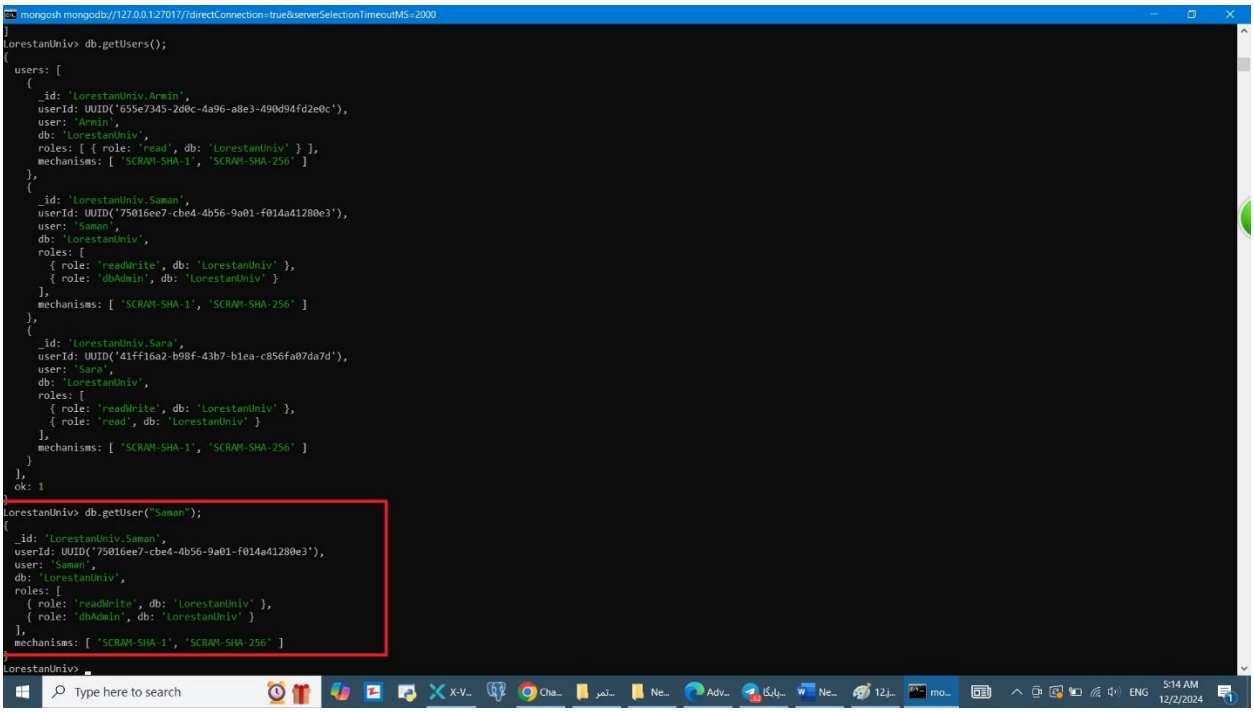
۱۰. مشاهده داده های موجود در یک کالکشن:



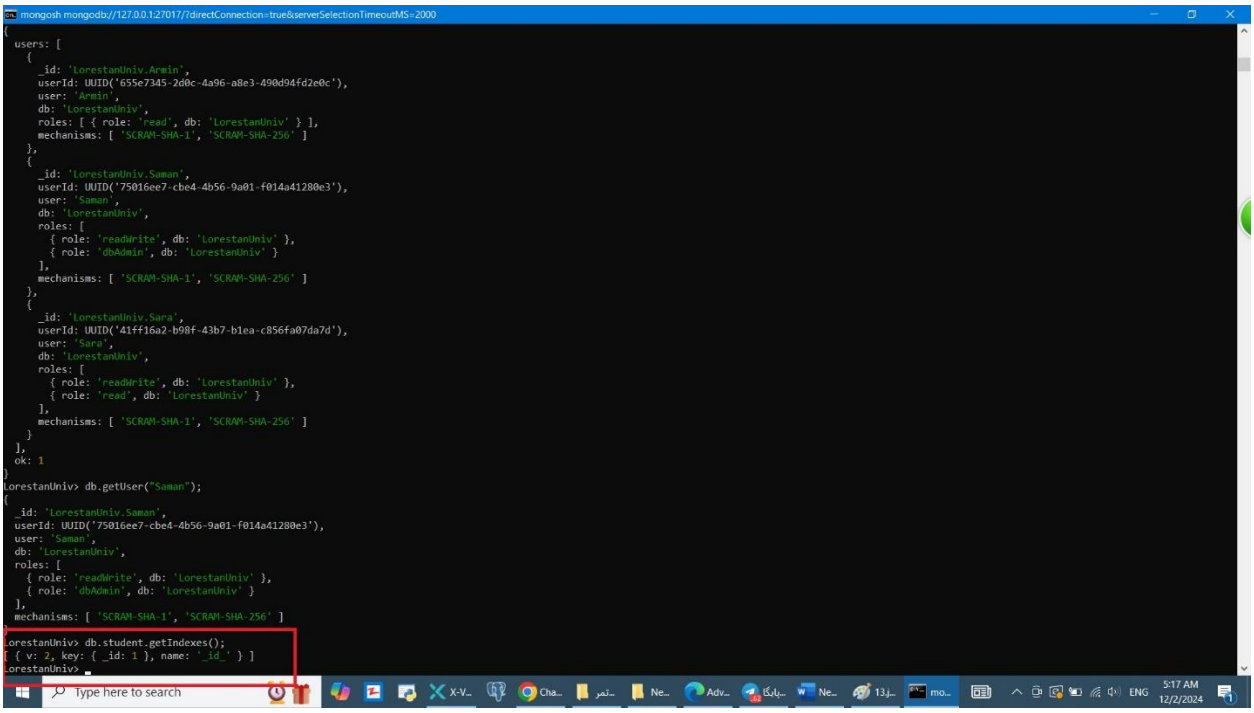
۱۱. مشاهده اطلاعات کاربرانی که در **MongoDB** ایجاد شده‌اند:



۱۲.دستور مشاهده اطلاعات دقیق تر درباره کاربر خاص سامان(ادمین):



۱۳. مشاهده نمایه‌ها (Indexes) در یک کالکشن خاص مثل student:



۱۴. استفاده از دستورات commit ، rollback ، abort با ایجاد savepoint :