

Day 4 – MongoDB and C# - 03.08.2023

Mongo Db Practice

```
mongosh mongodb://127.0.0.1:27020
-----
test> show dbs
Payoda 144.00 KiB
Sample  40.00 KiB
admin   40.00 KiB
config 108.00 KiB
local   72.00 KiB
test> use Payoda
switched to db Payoda
Payoda> db.createCollection("Trainees");
{ ok: 1 }
Payoda> db.Trainees.insertOne(name:"Ranga");
Uncaught:
SyntaxError: Unexpected token, expected ",", (1:26)

> 1 | db.Trainees.insertOne(name:"Ranga");
    |                               ^
    2 |

Payoda> db.Trainees.insertOne({name:"Ranga"});
{
  acknowledged: true,
  insertedId: ObjectId("64cb5735e41c20970efc6406")
}
Payoda> db.Trainees.find();
[ { _id: ObjectId("64cb5735e41c20970efc6406"), name: 'Ranga' } ]
Payoda> db.Trainees.insertMany({name:"Sriram"}{name:"Parithi"});
Uncaught:
SyntaxError: Unexpected token, expected ",", (1:38)

> 1 | db.Trainees.insertMany({name:"Sriram"}{name:"Parithi"});
    |                               ^
    2 |
```

Creating a database Trainees and inserting documents in it, which is gathered together is called collections.

```
acknowledged: true,
insertedId: ObjectId("64cb5735e41c20970efc6406")
}
Payoda> db.Trainees.find();
[ { _id: ObjectId("64cb5735e41c20970efc6406"), name: 'Ranga' } ]
Payoda> db.Trainees.insertMany({name:"Sriram"}{name:"Parithi"});
Uncaught:
SyntaxError: Unexpected token, expected ",", (1:38)

> 1 | db.Trainees.insertMany({name:"Sriram"}{name:"Parithi"});
    |                               ^
    2 |

Payoda> db.Trainees.insertMany({name:"Sriram"},{name:"Parithi"});
MongoInvalidArgumentError: Argument "docs" must be an array of documents
Payoda> db.Trainees.insertMany([name:"Sriram"],{name:"Parithi"});
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId("64cb579ae41c20970efc6407"),
    '1': ObjectId("64cb579ae41c20970efc6408")
  }
}
Payoda> db.Trainees.find();
[
  { _id: ObjectId("64cb5735e41c20970efc6406"), name: 'Ranga' },
  { _id: ObjectId("64cb579ae41c20970efc6407"), name: 'Sriram' },
  { _id: ObjectId("64cb579ae41c20970efc6408"), name: 'Parithi' }
]
Payoda> |
```

db.Trainees.find() is to show all the collections.

```
mongosh mongodb://127.0.0.1
2 |
Payoda> db.Trainees.insertMany([{"name":"varun", age:22},{name:"JK", age:23}]);
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId("64cb58f2e41c20970efc6409"),
    '1': ObjectId("64cb58f2e41c20970efc640a")
  }
}
Payoda> db.Trainees.find();
[
  { _id: ObjectId("64cb5735e41c20970efc6406"), name: 'Ranga' },
  { _id: ObjectId("64cb579ae41c20970efc6407"), name: 'Sriram' },
  { _id: ObjectId("64cb579ae41c20970efc6408"), name: 'Parithi' },
  { _id: ObjectId("64cb58f2e41c20970efc6409"), name: 'varun', age: 22 },
  { _id: ObjectId("64cb58f2e41c20970efc640a"), name: 'JK', age: 23 }
]
Payoda> db.Trainees.updateOne({name:"JK"},{$set:{age:24}});
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
Payoda> db.Trainees.find();
[
  { _id: ObjectId("64cb5735e41c20970efc6406"), name: 'Ranga' },
  { _id: ObjectId("64cb579ae41c20970efc6407"), name: 'Sriram' },
  { _id: ObjectId("64cb579ae41c20970efc6408"), name: 'Parithi' },
  { _id: ObjectId("64cb58f2e41c20970efc6409"), name: 'varun', age: 22 },
  { _id: ObjectId("64cb58f2e41c20970efc640a"), name: 'JK', age: 24 }
]
Payoda> |
```

Update Query in Mongo

```
mongosh mongodb://127.0.0.1
]
Payoda> db.Trainees.updateMany({},{$set:{isActive:true}},{upsert:true});
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 5,
  modifiedCount: 5,
  upsertedCount: 0
}
Payoda> db.Trainees.find();
[
  {
    _id: ObjectId("64cb5735e41c20970efc6406"),
    name: 'Ranga',
    isActive: true
  },
  {
    _id: ObjectId("64cb579ae41c20970efc6407"),
    name: 'Sriram',
    isActive: true
  },
  {
    _id: ObjectId("64cb579ae41c20970efc6408"),
    name: 'Parithi',
    isActive: true
  },
  {
    _id: ObjectId("64cb58f2e41c20970efc6409"),
    name: 'varun',
    age: 22,
    isActive: true
  },
  {
    _id: ObjectId("64cb58f2e41c20970efc640a"),
    name: 'JK',
    isActive: true
  }
]
```

Update many query in Mongo

```
Payoda> db.Trainees.find({age:{$in:[22,24]},{name:1,_id:0}});
[ { name: 'varun' }, { name: 'JK' } ]
Payoda> |
```

Find using in query in Mongo

```
mongosh mongodb://127.0.0.1
{
  _id: ObjectId("64cb5735e41c20970efc6406"),
  name: 'Ranga',
  isActive: true
},
{
  _id: ObjectId("64cb579ae41c20970efc6407"),
  name: 'Sriram',
  isActive: true
},
{
  _id: ObjectId("64cb579ae41c20970efc6408"),
  name: 'Parithi',
  isActive: true
},
{
  _id: ObjectId("64cb58f2e41c20970efc6409"),
  name: 'varun',
  age: 22,
  isActive: true
},
{
  _id: ObjectId("64cb58f2e41c20970efc640a"),
  name: 'JK',
  age: 24,
  isActive: true
}
]
Payoda> db.Trainees.find({age:{$in:[22,24]}},{name:1,_id:0});
[ { name: 'varun' }, { name: 'JK' } ]
Payoda> db.Trainees.find({age:{$gt:20}},{name:1,_id:0});
[ { name: 'varun' }, { name: 'JK' } ]
Payoda> db.Trainees.find({age:{$gt:22}},{name:1,_id:0});
[ { name: 'JK' } ]
Payoda> |
```

Setting condition

```
mongosh mongodb://127.0.0.1
}
]
Payoda> db.Trainees.find({age:{$in:[22,24]}},{name:1,_id:0});
[ { name: 'varun' }, { name: 'JK' } ]
Payoda> db.Trainees.find({age:{$gt:20}},{name:1,_id:0});
[ { name: 'varun' }, { name: 'JK' } ]
Payoda> db.Trainees.find({age:{$gt:22}},{name:1,_id:0});
[ { name: 'JK' } ]
Payoda> db.Trainees.deleteOne({age:24});
{ acknowledged: true, deletedCount: 1 }
Payoda> db.Trainees.find();
[
  {
    _id: ObjectId("64cb5735e41c20970efc6406"),
    name: 'Ranga',
    isActive: true
  },
  {
    _id: ObjectId("64cb579ae41c20970efc6407"),
    name: 'Sriram',
    isActive: true
  },
  {
    _id: ObjectId("64cb579ae41c20970efc6408"),
    name: 'Parithi',
    isActive: true
  },
  {
    _id: ObjectId("64cb58f2e41c20970efc6409"),
    name: 'varun',
    age: 22,
    isActive: true
  }
]
Payoda> |
```

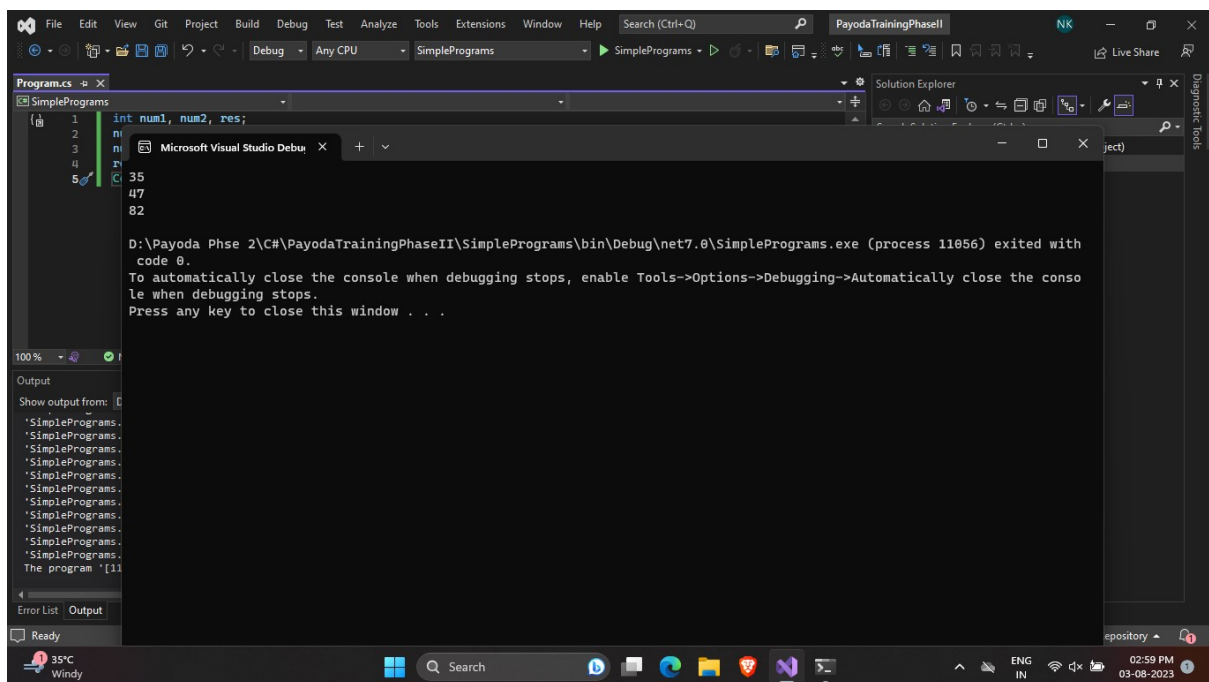
Deleting a document

C# Practice

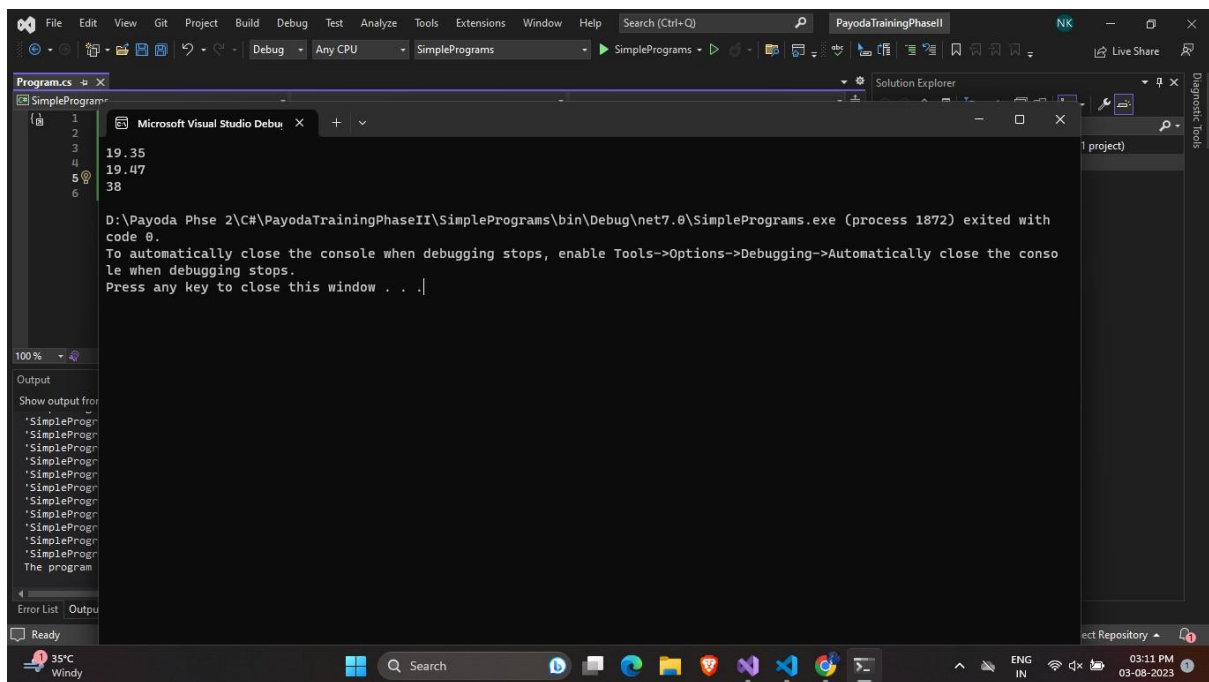
1) Addition of Two numbers

```
int num1, num2;  
    int res;  
num1 = Convert.ToInt32(Console.ReadLine());  
num2 = Convert.ToInt32(Console.ReadLine());  
res=num1+num2;  
Console.WriteLine(res);
```

Output



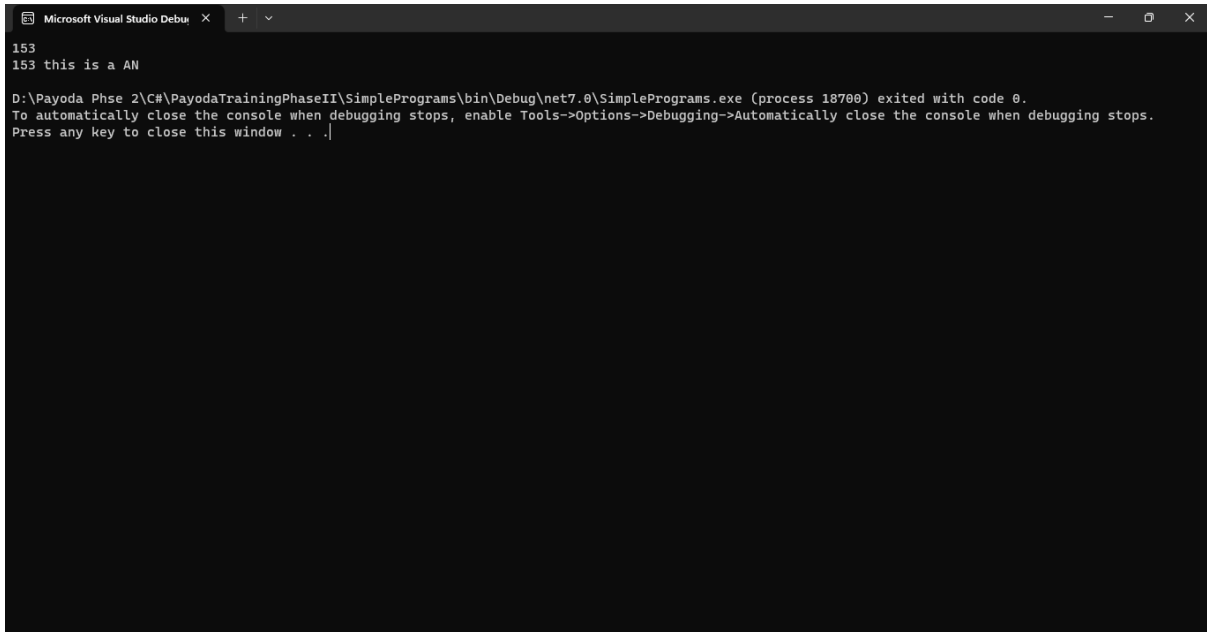
Output



3)Armstrong Number

```
int num, sum = 0;  
num=Convert.ToInt32(Console.ReadLine());  
int temp = num;  
  
while (num > 0)  
{  
    int rem = num % 10;  
    sum += (rem * rem * rem);  
    num /= 10;  
}  
Console.WriteLine(((sum == temp) ? (" {0} this is a AN") : (" {0} not an  
armstrong")),temp);
```

Output

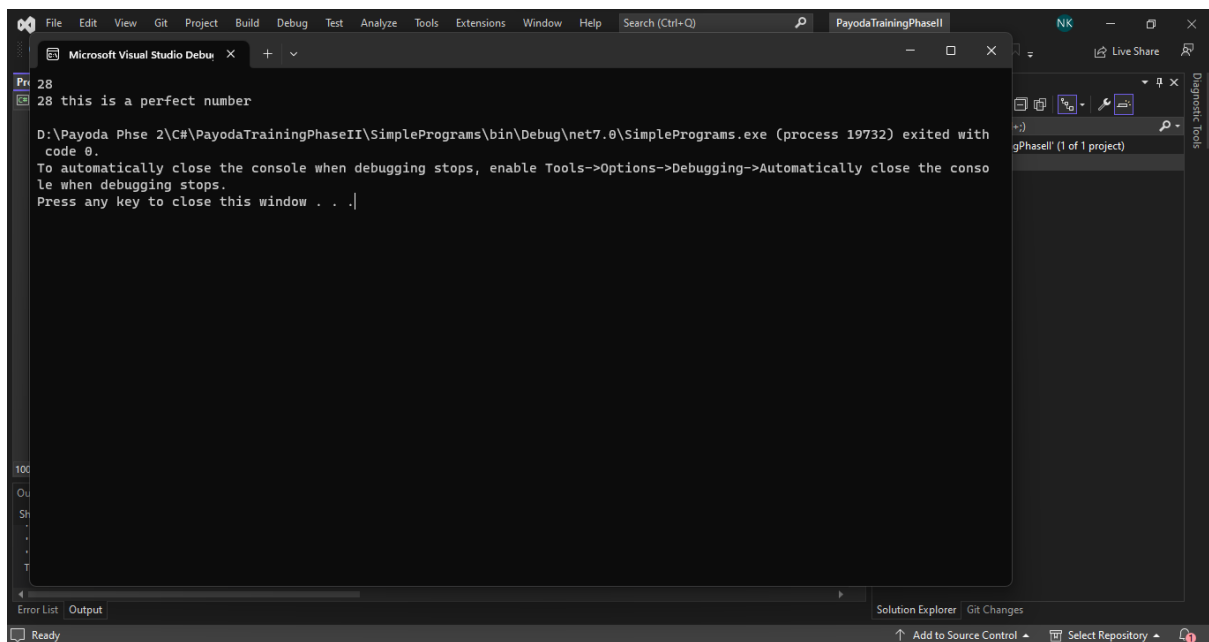


```
Microsoft Visual Studio Debug Console
153
153 this is a AN
D:\Payoda Phse 2\C#\PayodaTrainingPhaseII\SimplePrograms\bin\Debug\net7.0\SimplePrograms.exe (process 18700) exited with code 0.
To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the console when debugging stops.
Press any key to close this window . . .|
```

4)Perfect Number

```
int num, sum = 0;
num = Convert.ToInt32(Console.ReadLine());
int temp = num;
for (int i=1;i<num;i++)
{
    if (num%i == 0)
    {
        sum += i;
    }
}
Console.WriteLine(((sum == temp) ? (" {0} this is a perfect number") : (" {0}
this is not a perfect number")), temp);
```

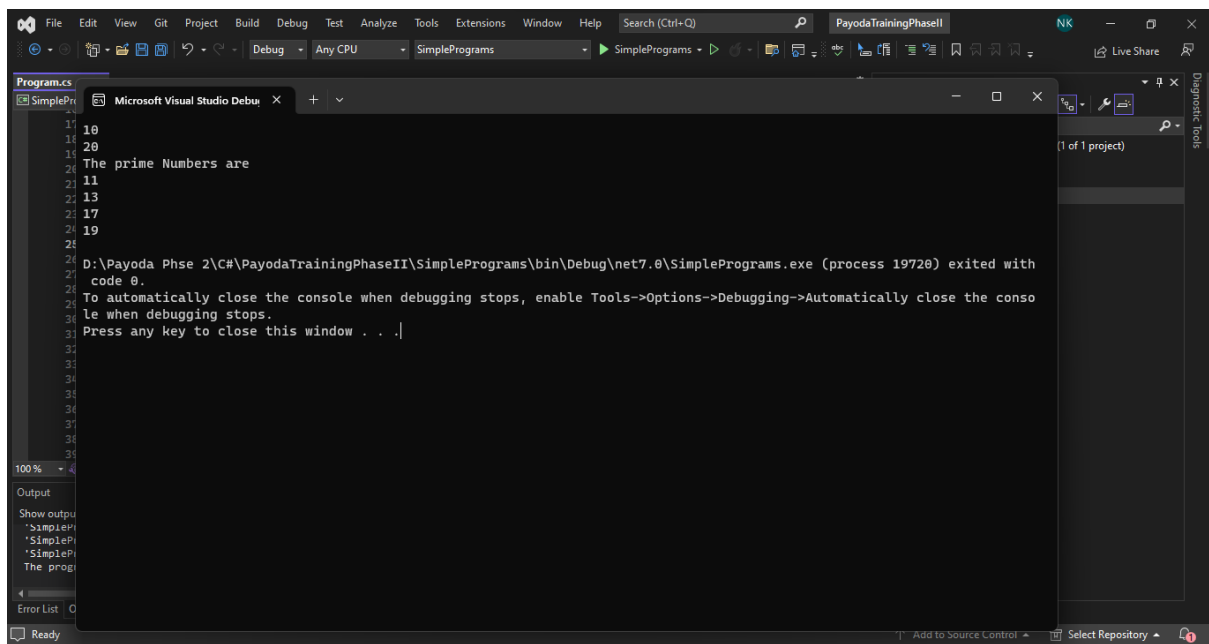
Output



5)Prime Number Between given Range

```
int start_num = 0, end_num = 0, count = 0;  
start_num = Convert.ToInt32(Console.ReadLine());  
end_num = Convert.ToInt32(Console.ReadLine());  
for (int i = start_num; i <= end_num; i++)  
{  
    for (int j = 1; j <= start_num / 2; j++)  
    {  
        if (i % j == 0)  
        {  
            count++;  
        }  
    }  
    if (count == 1)  
    {  
        Console.WriteLine(i);  
    }  
    count = 0;  
}
```

Output



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28 D:\Payoda Phse 2\C#\PayodaTrainingPhaseII\SimplePrograms\bin\Debug\net7.0\SimplePrograms.exe (process 19720) exited with
29 code 0.
30 To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the conso
31 le when debugging stops.
32 Press any key to close this window . . .|
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