MongoDB Cache Installations Instructions

Install

Install .NET SDK 5 if you don't have already. The Makefile included with this program can do it for you.

```
make install
```

Verify

Verify that you have dotnet installed properly.

```
make verify
```

The output should be similar to the below result :

```
dotnet --info
.NET SDK (reflecting any global.json):
 Version:   5.0.404
 Commit:    72c68b830a

Runtime Environment:
 OS Name:     Mac OS X
 OS Version:  12.1
 OS Platform: Darwin
 RID:         osx-x64
 Base Path:   /usr/local/share/dotnet/sdk/5.0.404/

Host (useful for support):
  Version: 6.0.1
  Commit:  3a25a7f1cc

.NET SDKs installed:
  5.0.404 [/usr/local/share/dotnet/sdk]

.NET runtimes installed:
  Microsoft.AspNetCore.App 5.0.13 [/usr/local/share/dotnet/shared/Microsoft.AspNetCore.App]
  Microsoft.NETCore.App 5.0.13 [/usr/local/share/dotnet/shared/Microsoft.NETCore.App]
  Microsoft.NETCore.App 6.0.1 [/usr/local/share/dotnet/shared/Microsoft.NETCore.App]

To install additional .NET runtimes or SDKs:
  https://aka.ms/dotnet-download
```

Build

Compile the program.

```
make build
```

The output should be similar to the below result :

```
 dotnet build
Microsoft (R) Build Engine version 16.11.2+f32259642 for .NET
Copyright (C) Microsoft Corporation. All rights reserved.

  Determining projects to restore...
  All projects are up-to-date for restore.
  MongoDBQueryCache -> /Users/saryakumar/github/my-programs/cacheapp/MongoDBQueryCache/bin/Debug/net5.0/MongoDBQueryCache.dll
  TestProject1 -> /Users/saryakumar/github/my-programs/cacheapp/TestProject1/bin/Debug/net5.0/TestProject1.dll
  MongoDBCacheApp -> /Users/saryakumar/github/my-programs/cacheapp/ConsoleApp1/bin/Debug/net5.0/MongoDBCacheApp.dll


Build succeeded.
    0 Warning(s)
    0 Error(s)

Time Elapsed 00:00:01.32
```

Run

Run the program.

```
 make run
```

Output

Once you use the `make run` command then the results should be displayed as follows:

```
 dotnet /Users/saryakumar/github/my-programs/cacheapp/ConsoleApp1/bin/Debug/net5.0/MongoDBCacheApp.dll /Users/saryakumar/github/my-pr
Reading the input queries file /Users/saryakumar/github/my-programs/cacheapp/ConsoleApp1/bin/Debug/net5.0/queries/query1.json
Query cache hit: False
Query returned 794 items.
Time elapsed: 2395 ms.
========================================================================
Reading the input queries file /Users/saryakumar/github/my-programs/cacheapp/ConsoleApp1/bin/Debug/net5.0/queries/query2.json
Query cache hit: True
Query returned 606 items.
Time elapsed: 77 ms.
========================================================================
Reading the input queries file /Users/saryakumar/github/my-programs/cacheapp/ConsoleApp1/bin/Debug/net5.0/queries/query3.json
Query cache hit: False
Query 1 evicted from cache.
Evicted all the 794 results belonging to query 1.
983 results evicted from cache.
Query returned 1983 items.
Time elapsed: 819 ms.
========================================================================
Reading the input queries file /Users/saryakumar/github/my-programs/cacheapp/ConsoleApp1/bin/Debug/net5.0/queries/query4.json
Query cache hit: False
Query 2 evicted from cache.
Evicted all the 1000 results belonging to query 2.
Query returned 50 items.
Time elapsed: 150 ms.
========================================================================
Reading the input queries file /Users/saryakumar/github/my-programs/cacheapp/ConsoleApp1/bin/Debug/net5.0/queries/query5.json
Query cache hit: True
Query returned 50 items.
Time elapsed: 5 ms.
========================================================================
Reading the input queries file /Users/saryakumar/github/my-programs/cacheapp/ConsoleApp1/bin/Debug/net5.0/queries/query7.json
Query cache hit: False
Query 3 evicted from cache.
Evicted all the 50 results belonging to query 3.
Query returned 608 items.
Time elapsed: 478 ms.
```

```
================================================================================
Reading the input queries file /Users/saryakumar/github/my-programs/cacheapp/ConsoleApp1/bin/Debug/net5.0/queries/query8.json
Query cache hit: True
WARN: result document 3223 doesn't contain beds.
Query returned 19 items.
Time elapsed: 13 ms.
================================================================================
Reading the input queries file /Users/saryakumar/github/my-programs/cacheapp/ConsoleApp1/bin/Debug/net5.0/queries/query9.json
Query cache hit: False
Query 4 evicted from cache.
Evicted all the 608 results belonging to query 4.
Query returned 0 items.
Time elapsed: 148 ms.
================================================================================
Reading the input queries file /Users/saryakumar/github/my-programs/cacheapp/ConsoleApp1/bin/Debug/net5.0/queries/query10.json
Query cache hit: False
Query 5 evicted from cache.
Evicted all the 0 results belonging to query 5.
4506 results evicted from cache.
Query returned 5506 items.
Time elapsed: 2122 ms.
================================================================================
Reading the input queries file /Users/saryakumar/github/my-programs/cacheapp/ConsoleApp1/bin/Debug/net5.0/queries/query1.json
Query cache hit: False
Query 6 evicted from cache.
Evicted all the 1000 results belonging to query 6.
Query returned 794 items.
Time elapsed: 615 ms.
================================================================================
Reading the input queries file /Users/saryakumar/github/my-programs/cacheapp/ConsoleApp1/bin/Debug/net5.0/queries/query4.json
Query cache hit: True
Query returned 50 items.
Time elapsed: 9 ms.
================================================================================
Reading the input queries file /Users/saryakumar/github/my-programs/cacheapp/ConsoleApp1/bin/Debug/net5.0/queries/query8.json
Query cache hit: False
Query 7 evicted from cache.
Evicted all the 794 results belonging to query 7.
Query returned 19 items.
Time elapsed: 146 ms.
================================================================================
Reading the input queries file /Users/saryakumar/github/my-programs/cacheapp/ConsoleApp1/bin/Debug/net5.0/queries/query3.json
Query cache hit: False
Query 8 evicted from cache.
Evicted all the 19 results belonging to query 8.
983 results evicted from cache.
Query returned 1983 items.
Time elapsed: 797 ms.
================================================================================
Reading the input queries file /Users/saryakumar/github/my-programs/cacheapp/ConsoleApp1/bin/Debug/net5.0/queries/query9.json
Query cache hit: False
Query 9 evicted from cache.
Evicted all the 1000 results belonging to query 9.
Query returned 0 items.
Time elapsed: 264 ms.
================================================================================
Reading the input queries file /Users/saryakumar/github/my-programs/cacheapp/ConsoleApp1/bin/Debug/net5.0/queries/query10.json
Query cache hit: False
Query 10 evicted from cache.
Evicted all the 0 results belonging to query 10.
4506 results evicted from cache.
Query returned 5506 items.
Time elapsed: 2204 ms.
================================================================================
```