Couchbase
NoEQUAL

Session Storage with ASP.NET: New Tutorial

Matthew Groves on February 25, 2019

Session storage is one of the cornerstones of a scalable web application. Couchbase Server is a performant, scalable, and flexible session storage choice. Beyond simply storing and retrieving session quickly, Couchbase Server also provides tools for exploring and mining session data for valuable insights. There are also open-source projects for more easily integrating Couchbase with your web framework of choice. So, if you're building web

Next →
Couchbase Mobile W...

Side note: the documentation team at Couchbase has been hard at work creating a new searchable "tutorials" *section. It's open source, it looks great, and I'm really excited about it! Keep an eye on that page, because there*

Session storage

When a user logs in to or visits a site, they start a "session". The session and the user are correlated by giving a cookie to the user's web browser with a lookup value that directly corresponds to session storage on the server side. ASP.NET and ASP.NET Core often store this data in memory on the web server.

For small sites and/or single server deployments, that might be okay. For larger deployments, it could be problematic for at least two reasons:

- If the web server goes down or is restarted, that session information is wiped out.

- "Sticky sessions" mean that a user is "stuck" to a single server, which can lead to unbalanced loads over time.

Another approach is to store session data separately from the web servers.
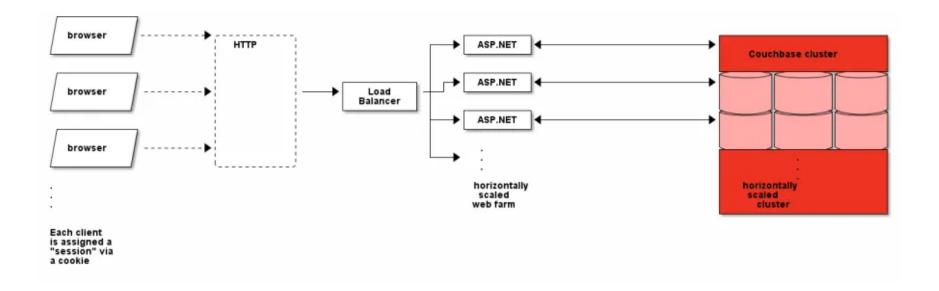
Web farm and session storage architecture

Search | Menu

| Clients | Internet | Servers | Shared session | Couchbase |

Exploring session data

There are many choices for tools to support session storage, but Couchbase Server offers some unique capabilities:

Memory-first (or memory only) storage. Once a Session starts, it is often read or written on every page request. With Couchbase, you can read/write data at the speed of memory.

Ease of scaling. Couchbase's shared-nothing architecture means that scaling up is not complicated. There's no single "master" node to constrain operations.

Search   Menu

example from the session storage tutorial of a N1QL query to find the most common items put into a shopping cart:

```
1 SELECT
2     i.ItemName,
3     SUM(i.Quantity) AS totalQuantity
4 FROM sessionstore s
5 UNNEST BASE64_DECODE(s.shoppingcart).Items i
6 WHERE s.shoppingcart IS NOT MISSING
7 GROUP BY i.ItemName
8 ORDER BY SUM(i.Quantity) DESC
```

Next Steps

If you are a .NET developer, you can follow along with the complete session storage tutorial right now. If you are using other frameworks or languages, session storage tutorials are coming soon!

If you have any questions or feedback for this tutorial, you can find me on Twitter @mgroves. As with everything in Couchbase documentation, this tutorial is open source and pull requests for improvements are welcome!

Author

Matthew Groves -

Posted in: Couchbase Server   **Tagged in:** .NET, ASP.NET, Couchbase Server, session, tutorial

Next →
Couchbase Mobile W…

Search | Menu

Posted by Matthew Groves

Matthew D. Groves is a guy who loves to code. It doesn't matter if it's C#, jQuery, or PHP: he'll submit pull requests for anything. He has been coding professionally ever since he wrote a QuickBASIC point-of-sale app for his parent's pizza shop back in the 90s. He currently works as a Product Marketing Manager for Couchbase. His free time is spent with his family, watching the Reds, and getting involved in the developer community. He is the author of AOP in .NET (published by Manning), a Pluralsight author, and a Microsoft MVP.

All Posts   Website

Leave a reply

You must be logged in to post a comment.

Search our blog

Search   Menu

Recent Posts

Search   Menu

R Programming With Couchbase NoSQL Queries and Maps

SQL to NoSQL: Automated Migration

Couchbasers Around The World – UK Edition

The Couchbook & Our Code Of Conduct

Blog Topics

Select Topic

Contact

COMPANY

SUPPORT

QUICKLINKS

ABOUT

DEVELOPER PORTAL

BLOG

LEADERSHIP

FORUMS

DOWNLOADS

SERVICES

CAREERS

ONLINE TRAINING

Search

Menu

SUPPORT LOGIN

EVENTS

RESOURCES

TRAINING

PRICING

WHY NOSQL

CONTACT US

SECURITY

GDPR

Terms of Use **Privacy Policy** **Cookie Policy** **Marketing Preference Center**