

Collaborative Discussion – Alternatives to SQL

The screenshot shows a web browser window with multiple tabs open. The active tab is 'my-course.co.uk/mod/hsuforum/discuss.php?id=263110'. The page header includes the University of Essex logo and navigation links like 'Online', 'My Modules', and a search bar. A sidebar on the left lists various course elements: 'OOIS_PCOM7E May 2021', 'Participants', 'Grades', 'Module Home', 'Tutor Office', 'Deadline Details', 'Seminars', 'Module Resources', 'e-Portfolio', 'Codio', 'eBook', and units 1 through 5. The main content area is titled '« Collaborative Discussion 2: Alternatives to SQL' and features a post by 'Kikelomo Obayemi' with a profile picture. The post is labeled 'Initial Post' and '23 days ago'. It has '2 replies' and was 'Last 19 days ago'. The text of the post discusses NoSQL database technologies, their advantages over traditional RDBMS, and provides references. A 'Reply' button is visible at the bottom right of the post area.

« Collaborative Discussion 2: Alternatives to SQL

Kikelomo Obayemi

Initial Post
23 days ago

2 replies
Last 19 days ago

According to Moniruzzaman & Hossain (2013), NoSQL database technologies surfaced when major internet companies started to deal with the challenges of managing large and unstructured data. There came a need to adopt more scalable, flexible, and higher performance technologies which traditional relational databases (RDBMS) do not offer (Madison et al., 2015).

NoSQL (also referred to as non-relational) database technology can be classified into four categories namely: key-value stores, column-oriented stores, document oriented and Graph based databases each with their defined data model (Kayshap et al., 2013). **Mongo DB** is an example of document-oriented NoSQL database management system. It stores large collections of documents that are encoded in standard data exchange format such as XML, JSON (Javascript Option Notation) and Binary JSON (Moniruzzaman & Hossain, 2013). Example of such documents are e-mail messages, text documents and XML documents

In general, NoSQL systems offer several advantages over traditional RDBMS in their schema, data structure, scaling and development model (MongoDB, 2021). NoSQL systems can store data without predefining the schema making updates a lot easier. They are built to handle the type of data that we generate today such as e-mail, photos, and

This section continues the discussion forum page. It shows the 'References' section with three entries: Kashyap, S., Zamwar, S., Bhavsar, T. & Singh, S. (2013). Benchmarking and analysis of nosql technologies. *International Journal of Emerging Technology and Advanced Engineering*, 3(9), 422-426. Madison, M., Barnhill, M., Napier, C. and Godin, J. (2015). NoSQL database technologies. *Journal of International Technology and Information Management*. 24(1). 1. MongoDB (2021). NoSQL vs Relational Databases. Available from: <https://www.mongodb.com/scale/nosql-vs-relational-databases> [Accessed 26 June 2021] Moniruzzaman, A. M., & Hossain, S. A. (2013). NoSQL database: new era of databases for big data analytics – classification, characteristics, and comparison. *International Journal of Database Theory and Application*. 6(4).

Below the references is a 'Reply' button and a 'Maximum rating: -' section. The '2 replies' section shows a reply by 'Hendrik Van Rooyen' with a profile picture, posted '19 days ago'.

References

Kashyap, S., Zamwar, S., Bhavsar, T. & Singh, S. (2013). Benchmarking and analysis of nosql technologies. *International Journal of Emerging Technology and Advanced Engineering*, 3(9), 422-426.

Madison, M., Barnhill, M., Napier, C. and Godin, J. (2015). NoSQL database technologies. *Journal of International Technology and Information Management*. 24(1). 1.

MongoDB (2021). NoSQL vs Relational Databases. Available from: <https://www.mongodb.com/scale/nosql-vs-relational-databases> [Accessed 26 June 2021]

Moniruzzaman, A. M., & Hossain, S. A. (2013). NoSQL database: new era of databases for big data analytics – classification, characteristics, and comparison. *International Journal of Database Theory and Application*. 6(4).

Reply

Maximum rating: -

2 replies

Post by **Hendrik Van Rooyen**
19 days ago