

Design and implementation of a social networking platform for cloud deployment specialists

Christos Papoulas

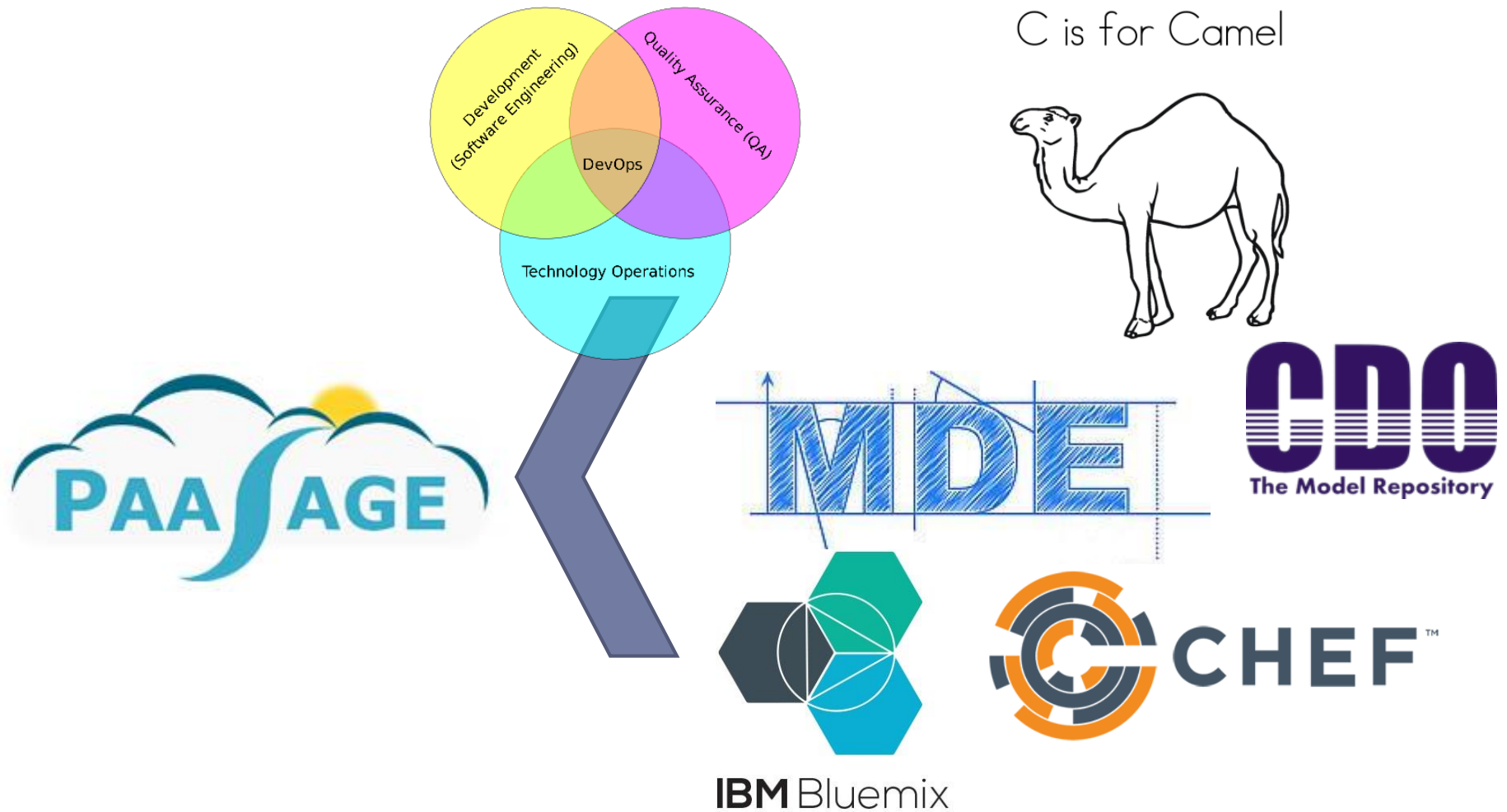
Agenda

- ▶ Motivation
- ▶ Design and Implementation
- ▶ Evaluation

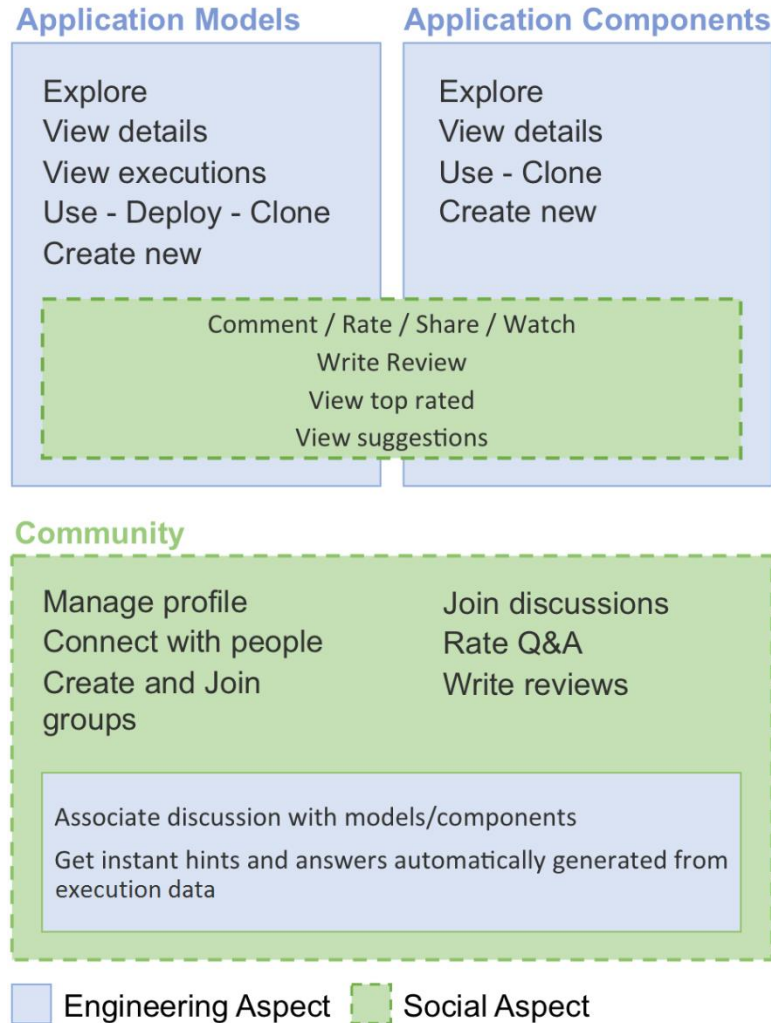


Motivation

Context



Research goal

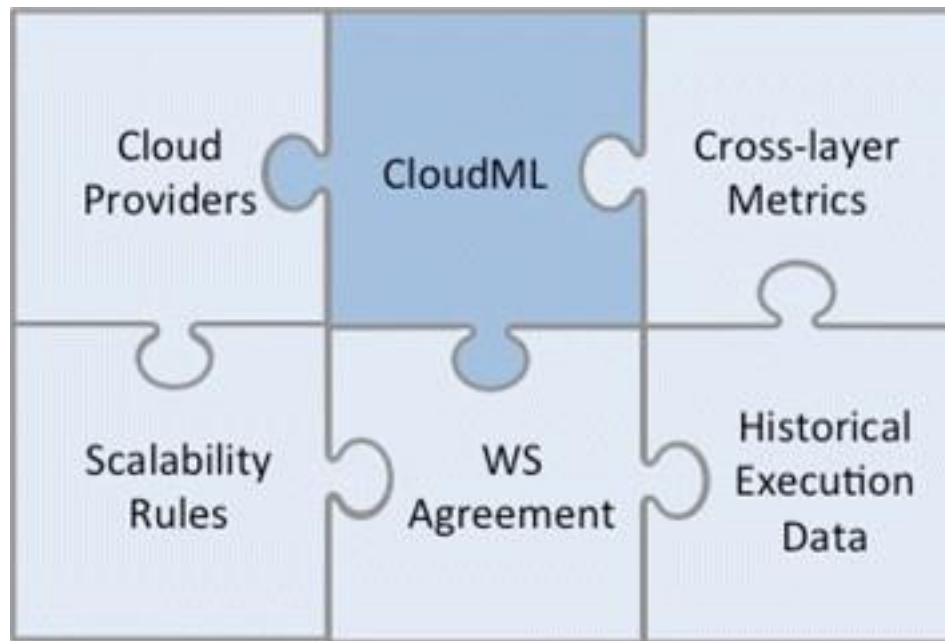


Contributions

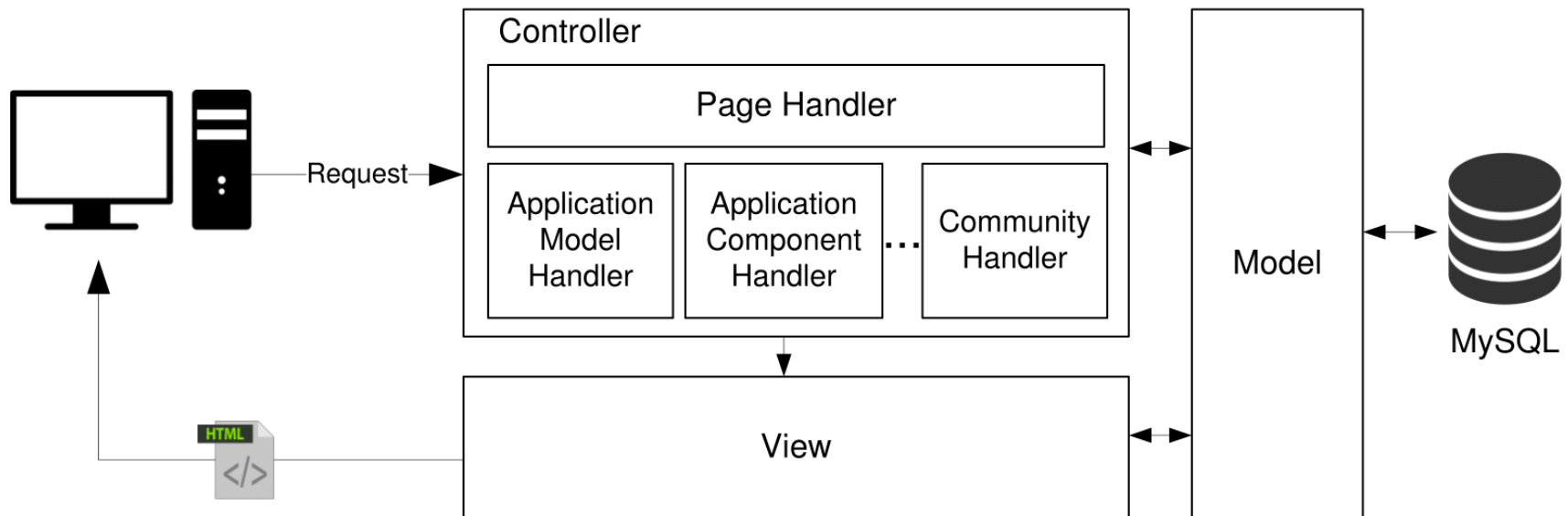
- ▶ A Social Networking Platform (SNP) for Cloud Deployment specialists
- ▶ Extensive usability evaluation
- ▶ Addressing scalability aspects
- ▶ Applying Natural Language Processing (NLP) techniques on crowd-sourced Q&A data.

Design and Implementation

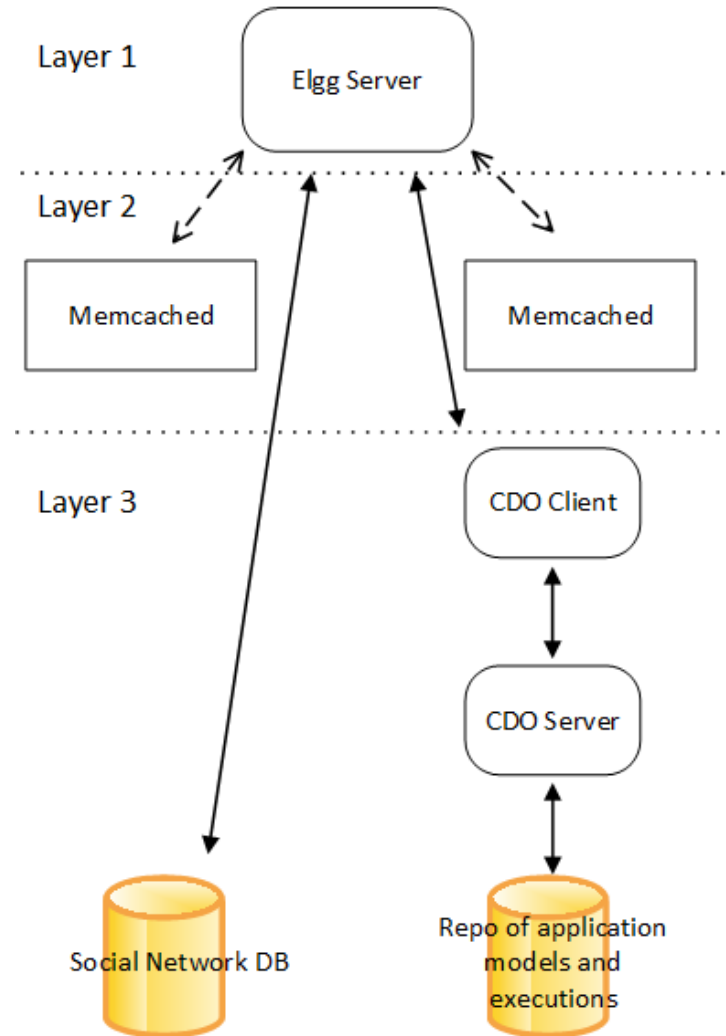
Modeling Applications



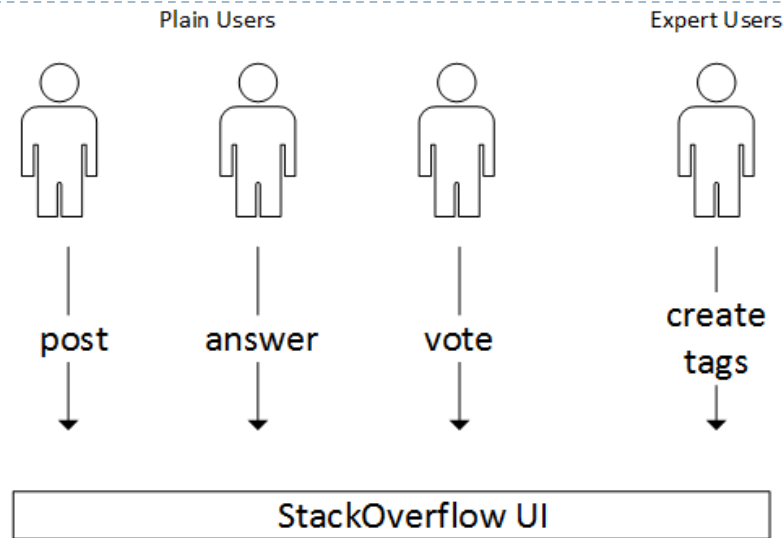
Social Networking Engine Architecture



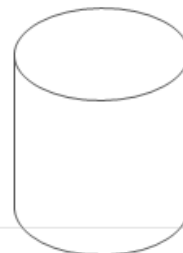
System Architecture



StackOverflow Community



How Scalable is SQLite? [closed]



Repository
of Q&A

▲
147
▼
★
65

I recently read this Question about [SQLite vs MySQL](#) and the answer pointed out that SQLite doesn't scale well and the official website [sort-of confirms this](#), however.

How scalable is SQLite and what are its upper most limits?

sqlite scalability

share edit flag

edited Oct 27 '09 at 1:20



Sinan Ünür

86.5k ● 10 ● 130 ● 258

asked Sep 10 '08 at 18:47



GateKiller

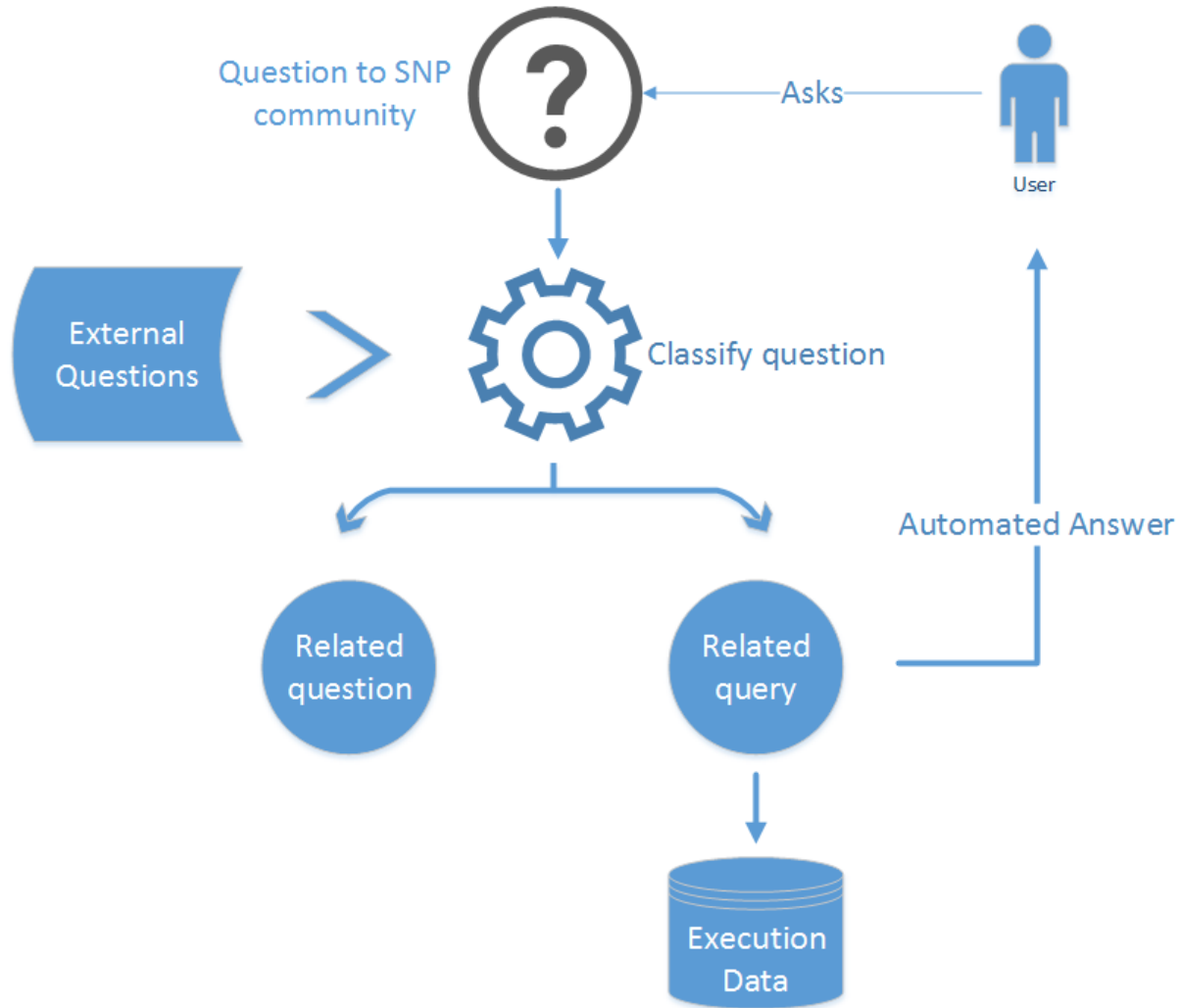
23k ● 50 ● 139 ● 183

asked 7 years ago

viewed 30107 times

active 2 years ago

Automated Replies



Automated Replies

JEnterprise



Question

Started by Mike Elson 20 days ago

[edit](#)

What is the most cost-effective deployment of JEnterprise on multi-cloud setups?

0 ↑ / 0 ↓

Answers(1)



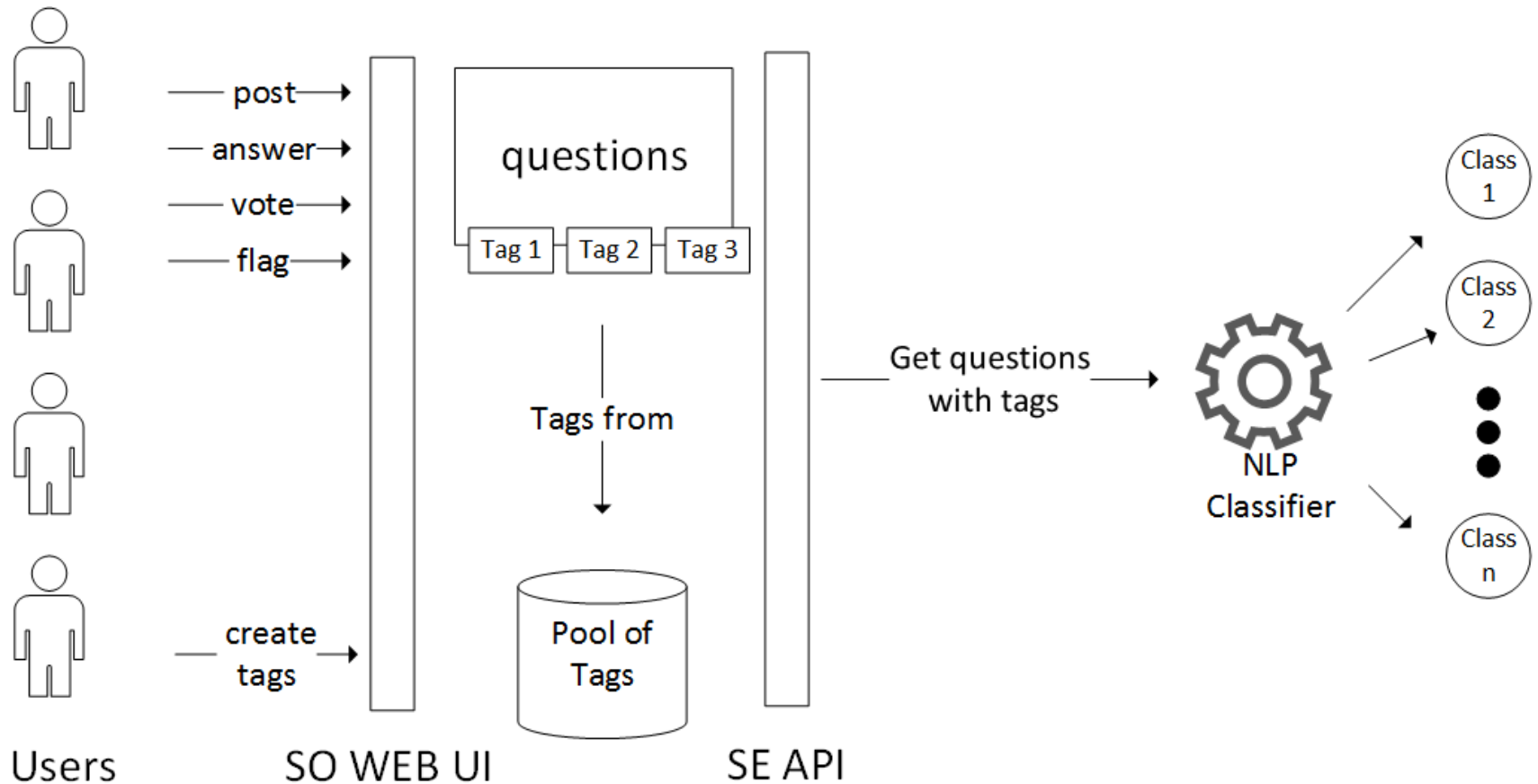
By Automaton 20 days ago

Public Edit

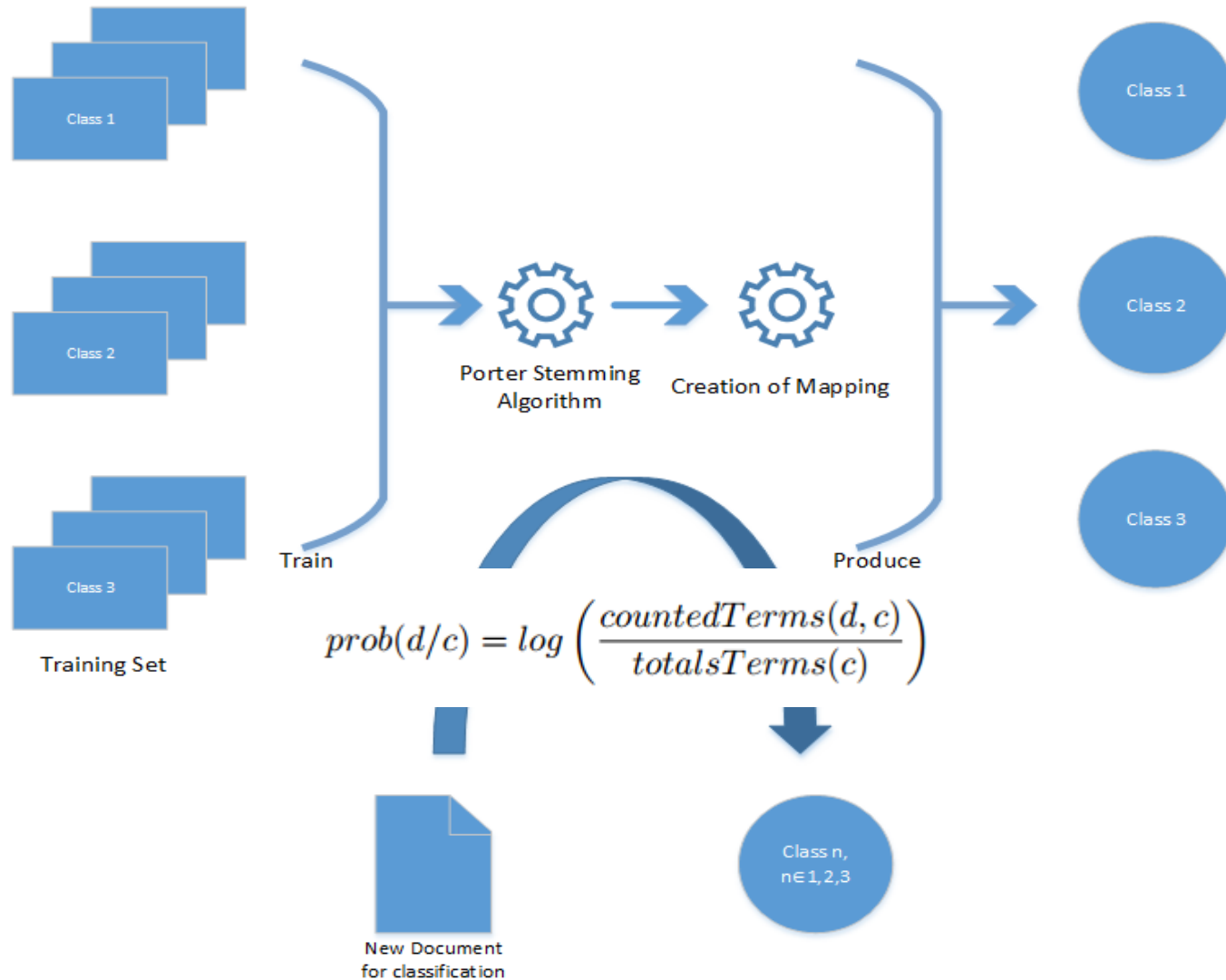
The most cost effectiveness configuration of SPEC JEnterprise2010 is: [jEnterprise18F](#). This is an aytomatically generated response based on historical data.

0 ↑ / 0 ↓

NLP Classifier



NLP Topic Classification





Evaluation

Usability Evaluation Process

- ▶ Targeting usability of UI design
- ▶ User evaluation contacted
- ▶ Results point to user requirements and user feedback

User Interface of Application Models

The screenshot displays the PAA AGE user interface for a model named "JEnterprise". The interface is divided into several sections:

- (1) Description of Application model:** The main content area on the left, containing the model's description and details. It includes a title "JEnterprise", a subtitle "By Antonis Papaioannou Created: 204 days ago", a rating "5/5 Rating from 5 users", and a "Review content" button. The description text describes the SPECJEnterprise2010 benchmark, its workload, and its design.
- (2) Model Description:** A button labeled "Download xmi file" located at the bottom of the description area.
- (3) Reviews:** A section on the right side of the page, containing a list of reviews. It shows a review by "Mike Elson" dated "2014-12-01".
- (4) engineering aspects:** A section on the right side of the page, containing a list of engineering aspects. It shows "14 Runs" and "14 Uses".
- (5) social aspects:** A section on the right side of the page, containing a list of social aspects. It shows "1 Watches" and "1 Shares".

The interface also features a top navigation bar with links to "Models", "Components", and "Community", a search bar, and a "Log out" button. A sidebar on the right contains sections for "CONTRIBUTORS (3)" and "TAGS", with a "View All" link for each.

User's Requirements

View and share source code

Deployment scripts and instructions

Direct model execution

Application binaries

Software project management

User's Feedback

Detailed model information

Automated replies

Model sharing

User profile tags UI design

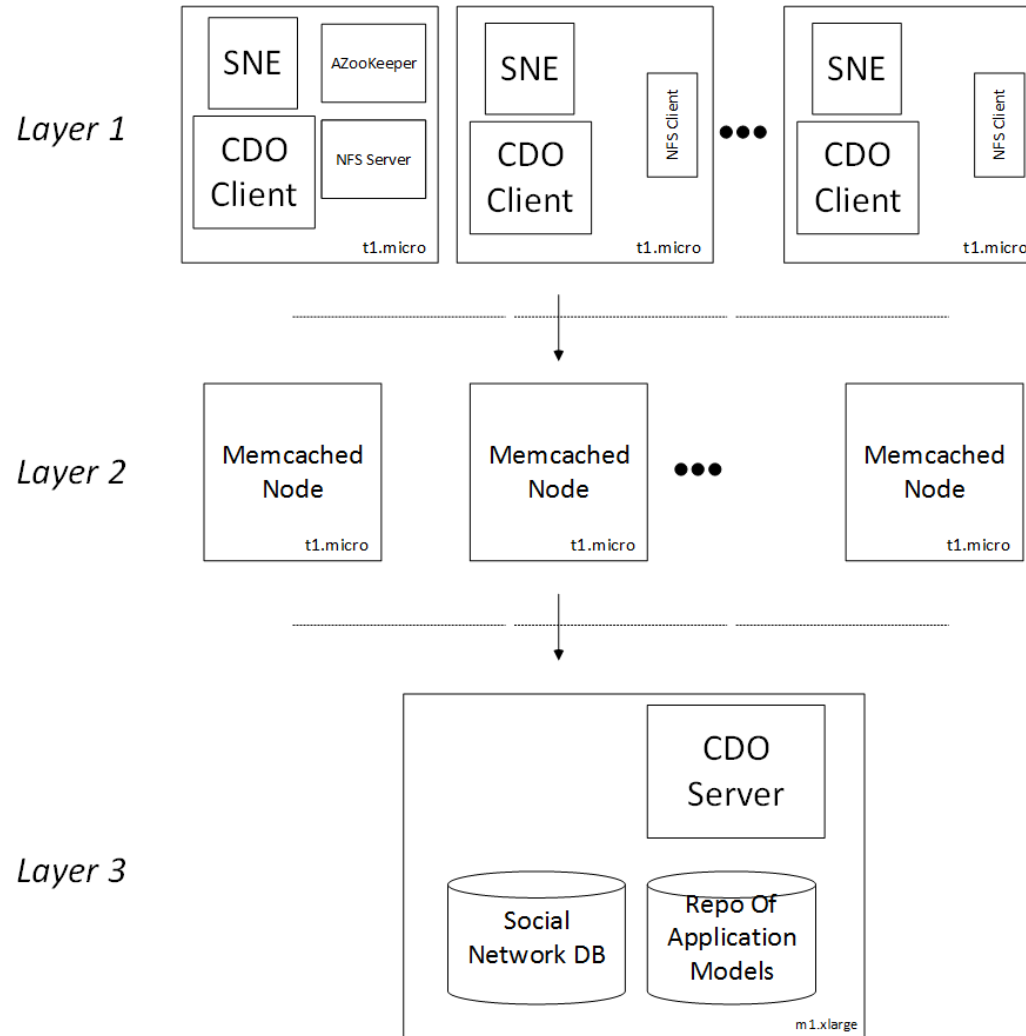
Execution histories

Social features

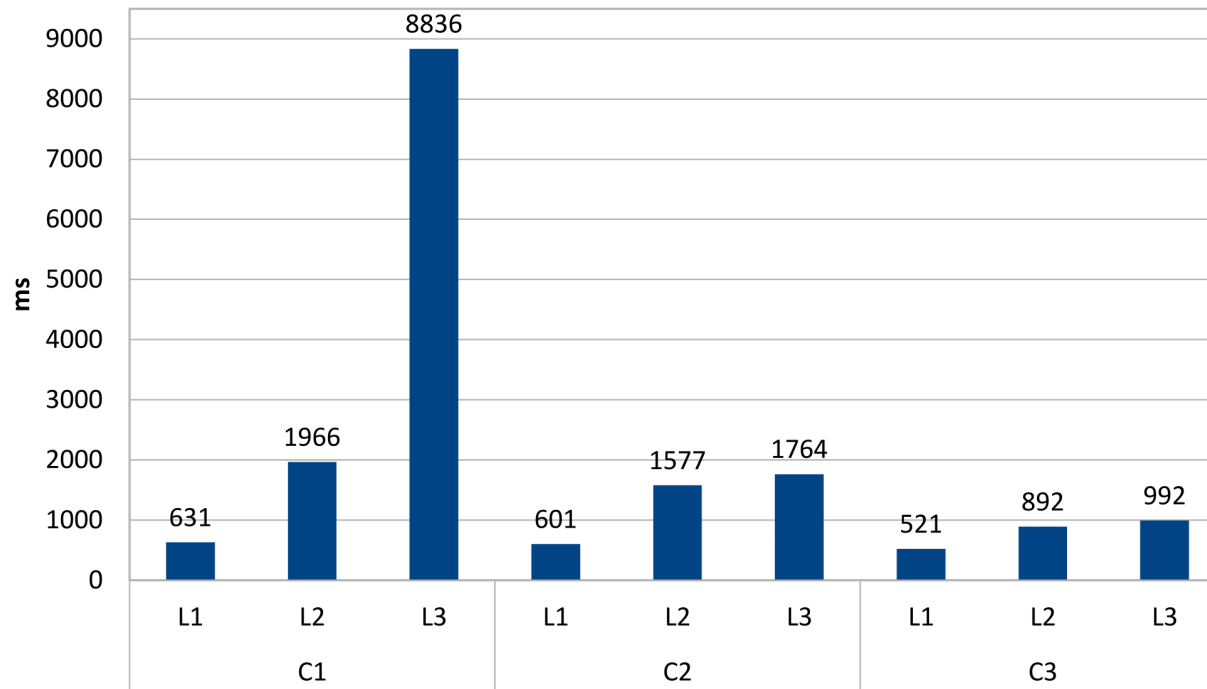
Charts and statistical information

Projects and users connection

Evaluated Architecture



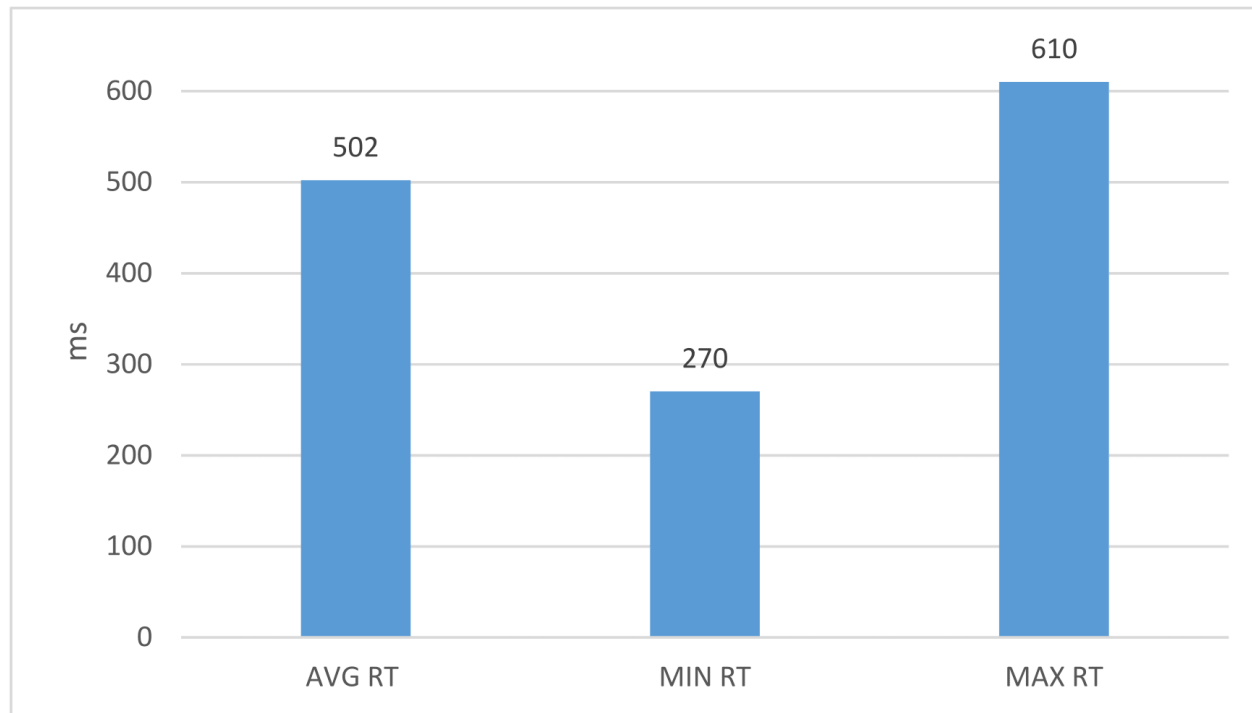
Response Time, adding Memcaches (1/2)



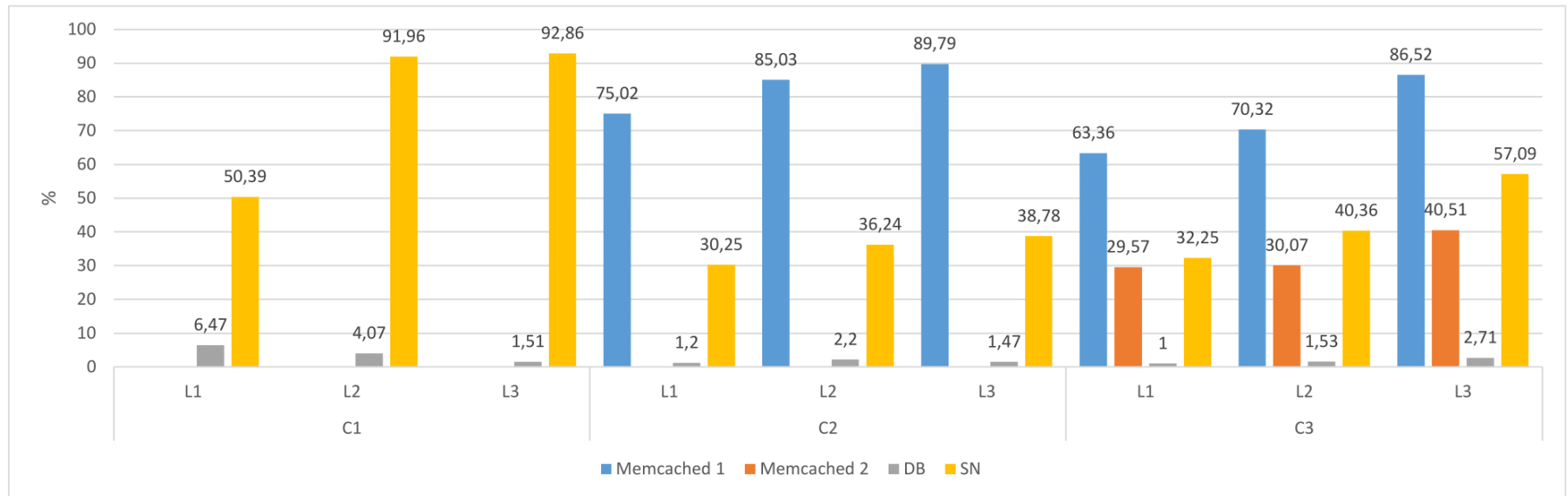
L1	10 users request 2 applications
L2	10 users request 4 applications
L3	10 users request 8 applications

C1	No memcached node
C2	One memcached node
C3	Two Memcached node

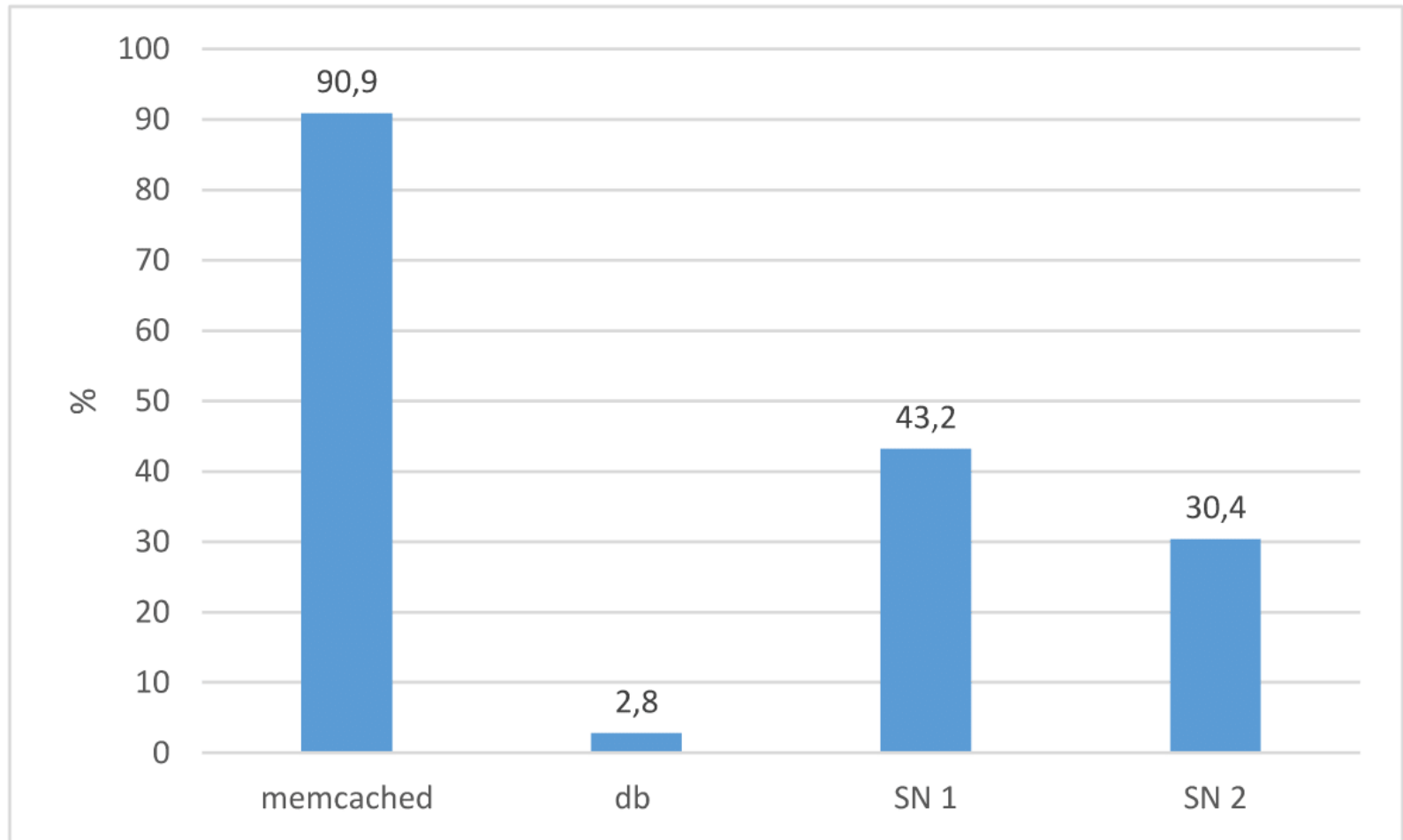
Response Time, adding SNE (2/2)



CPU Utilization, adding Memcaches (1 / 2)



CPU Utilization, adding SNE (2/2)



NLP classification evaluation

class / class	reliability	design	optimazation	performance	scalability
reliability	21	0	8	1	0
design	2	15	8	3	2
optimization	2	3	15	9	1
performance	2	1	17	9	1
scalability	10	6	3	3	8

javascript: error handling and optimization



can somebody explain me how to handle errors. my code is

-3

```
function addData(tableName, row, callback) {  
}
```



thank you.



javascript

performance

error-handling

reliability



Tushar

24.3k ● 5 ● 20 ● 43

edited May 21 at 5:59

asked May 21 at 5:57



CodeAmour

1

Conclusion

▶ Contributions

- ▶ Extensive User Evaluation
- ▶ A social network User Interface is implemented for DevOps cloud deployment specialists.
- ▶ A scalable system architecture of our SNP is presented.
- ▶ The SN Platform can perform NLP classification on the user's input.

Thank you