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

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# Agenda

- Introduction
- Design and Implementation
- Evaluation

# introduction

#### Context



#### improves

- productivity
- quality
- cost-effectiveness
   of software development

### Research goal

# Explore View details View executions Use - Deploy - Clone Create new Comment / Rate / Share / Watch Write Review View suggestions Application Components Explore View details Use - Clone Create new

#### **Community**

Manage profile Join discussions
Connect with people Rate Q&A
Create and Join Write reviews
groups

Associate discussion with models/components
Get instant hints and answers automatically generated from the Knowledge Base

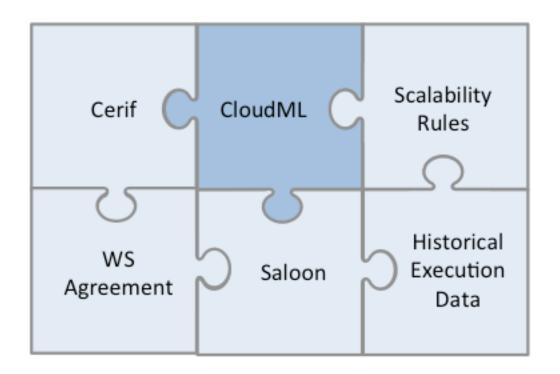
Engineering Aspect Social Aspect

#### Research Results

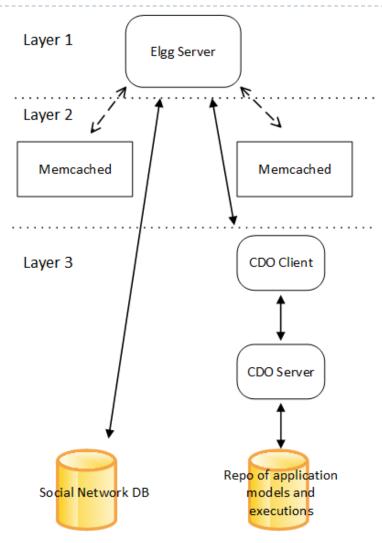
- The SNP brings the executions histories of the CAMEL models to the end users
- The SNP can scale and provide near-real time response time.
- They used known techniques of Natural Language Processing for the user input.

# Design and Implementation

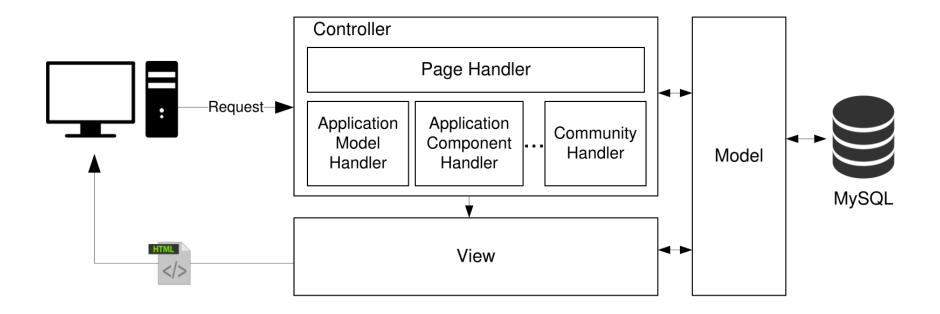
# CAMEL family



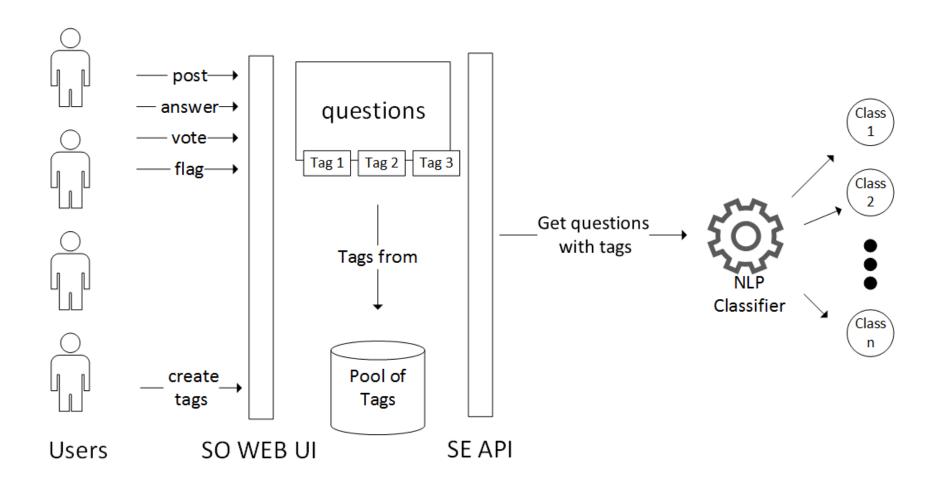
# System Architecture



## Social Networking Engine Architecture

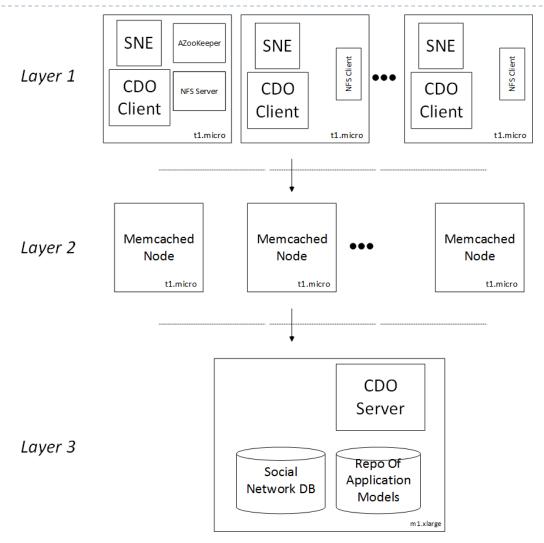


#### NLP Classification

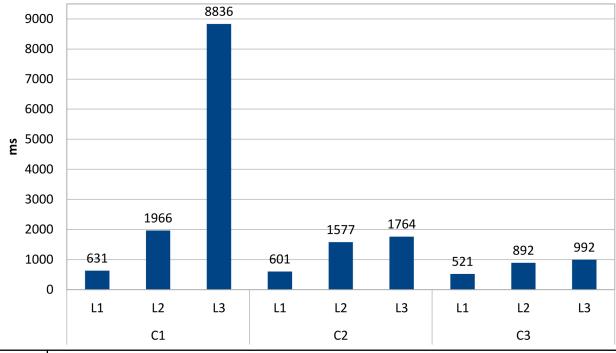


# Evaluation

## Deployed Architecture

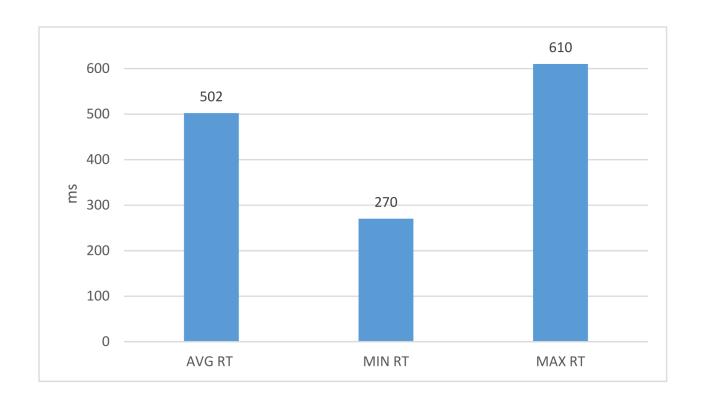


# Response Time (1/2)

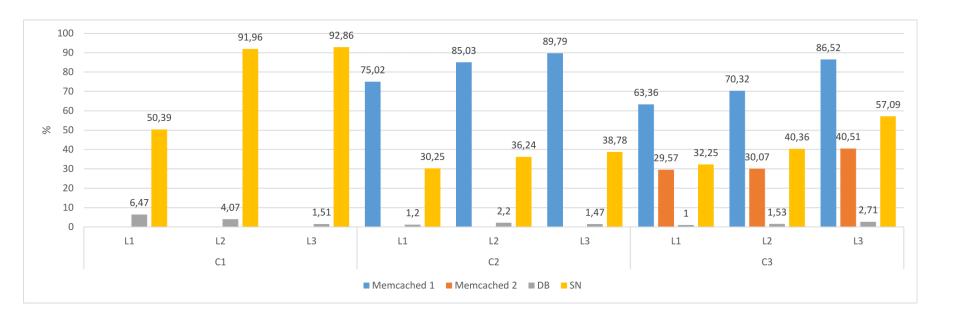


| L1 | 10 users request 2 applications and the executions of them |
|----|--|
| L2 | 10 users request 4 applications and the executions of them |
| L3 | 10 users request 8 applications and the executions of them |

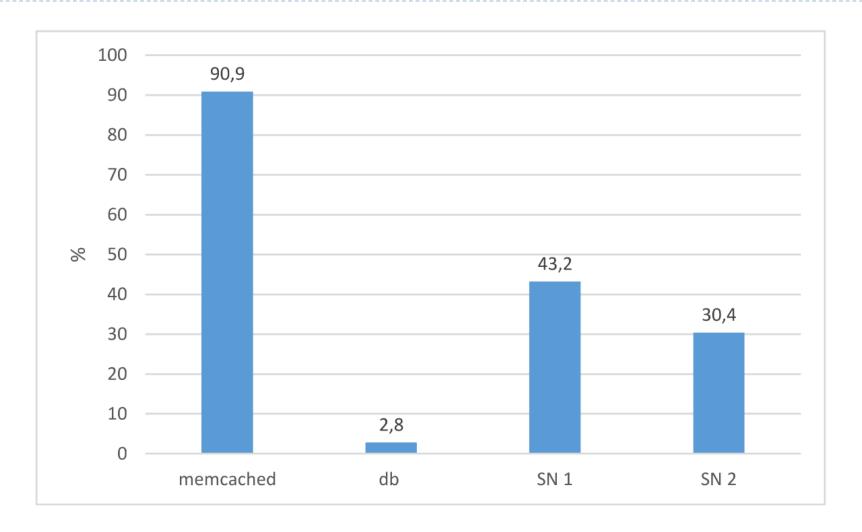
# Response Time (2/2)



# CPU Utilization (1/2)



# CPU Utilization (2/2)



#### NLP classification evaluation

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

#### Conclusion

#### Contributions

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

# Thank you