

CloudML - A DSL for model-based realization of applications in the cloud

Spring 2012

Built: February 8, 2012

Abstract

...

Contents

1	Introduction (30)	1
1.1	Introduction and methodology	1
1.2	Problem definition with examples	2
1.3	Requirements to solution (with table)	2
1.4	Evaluation of existing solutions	2
2	Contribution (40)	3
2.1	Vision, concepts and principles	3
2.2	Analysis and design	3
2.3	Implementation/realization	3
2.4	Validation on example/experiments	3
3	Conclusions (5)	4

1 Introduction (30)

1.1 Introduction and methodology

Short and sharp

- [Main introduction](#)
- [Write lastly](#)

- Methodology

1.2 Problem definition with examples

- Outline the problem
Where do I get the challenges from?
 - Information dependency at runtime
 - Technical competence/level expectations
 - Reproducibility
 - Robustness
 - Complexity
 - Shareable
- Why is it important to solve the problems
 - Cloud domain is state of the art
 - model driven approach with benefits (no special tooling)
 - Easier for businesses (especially SMBs) to reach out to Cloud
 - Easier for larger more time-constraint businesses to try out the cloud
 - Opening the eyes of big providers for a larger cross-cloud language

1.3 Requirements to solution (with table)

- Copy in my existing table from the essay
Requirements = challenge = problem?

1.4 Evaluation of existing solutions

Even more examples in mOSAIC articles

- Identify *properties* (problems in reality)
- Find more sources
- Model driven
 - Amazon CloudFormation
 - CA Applogic

- APIs
 - libcloud
 - jclouds
 - Deltacloud
- Deployments
 - Amazon Beanstalk
 - simplifying-solution-deployment-on-a-cloud-through-composite-appliances
 - architecture-for-virtual-solution-composition-and-deployment

2 Contribution (40)

2.1 Vision, concepts and principles

2.2 Analysis and design

- Copy chap 3 from CloudMDE
- Weaknesses

2.3 Implementation/realization

- More info than CloudMDE
- Technologies chosen
- Why technologies were chosen

2.4 Validation on example/experiments

- How BankManager proves concepts of the templates (subsection 1) with cloudml-engine

3 Conclusions (5)

Short and sharp

- Summary of CloudML
 - What subsection in solution solves what subsection in problem
- CloudML
- Implementation
- Perspectives (2 paragraphs, can be section)
 - Look into the future
 - * Deployments
 - short term
 - long term

Bibliography

Appendix (CloudMDE)

(Maybe)