Will Be Defined After the Brainstorming Phase*

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Abstract. ~150 words expected. Will also be defined after the brainstorming phase. Must mention *(i)*the problem, *(ii)*the actual contribution and *(iii)*the obtained results.

1 Introduction

I'll write the introduction afterwards, when the content of the paper will be fixed.

- Cloud–computing research field [2]
- Model–driven engineering applied to the cloud

2 Challenges in the cloud

There are many challanges[1] to cloud deployments, such as **cloud environment configuration** and **automating the deployment**. To recognize these challanges an example application[3] has been utilized. The application (from here known as BankManager) is a featureless bank mananger system written in Grails[6], it supports creating users and bank accounts, moving money between bank accounts and users. BankManager is designed to be distributed between several nodes with two front-end applications connected to one back-end database as seen in Figure 1 with three nodes and one browser to visualize application flow. To prototype deployment of the design scripts combined with s3cmd[5] was used to create instances and deploy the software. From this prototype it became clear that details such as IP addresses, dependencies between instances, software configurations and level of technical competence could have negative impact on resulting deployment. CloudML focuses on coping with challenges such as dynamic allocation and runtime information dependencies. nessecary to complete deplyment.

3 Contribution

The design is implemented as a proof of concept framework[4] (from here known as cloudml-engine*). Cloudml-engine is written in Scala, builds with Maven and*

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Use tikz instead?

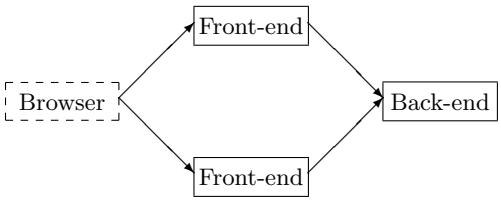

Fig. 1. Nodes for deploying BankManager

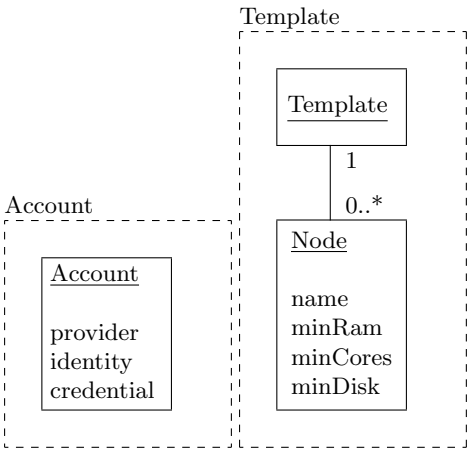

Fig. 2. Model of Account and Template

can be used from Java. The templates from the design are constructed with JavaScript Object Notation (JSON).

4 Validation & Experiments

- Three instances
  1. Frontend webapp
  2. Frontend webapp
  3. Backend database
- Setup works on
  - AWS EC2
  - Rackspace cloudservers

5 Related Works

- AWS CloudFormation (Amazon only)
- jclouds (Only through (more advance?) code)
- libcloud (Only through (more advance?) code)
- CA Applogic (only graphical, and inhouse)

6 Conclusions

I'll write the conclusions afterwards.

References

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