

Meins titel

Masterthesis

at the University of applied science Ravensburg-Weingarten

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Abstract

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Quelle: [http://en.wikipedia.org/wiki/Abstract_\(summary\)](http://en.wikipedia.org/wiki/Abstract_(summary))

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1 Introduction

Allgemein:

Grundlagen was ist das Ziel der Thesis?

- Was ist das beschriebene Überhaupt (Debugging)
- Anforderungen (Z.B. Performance ist egal etc.)
- Welche Punkte müssen erfüllt sein für das Ergebnis (Messbar)
 - Toleranzen bei Performance o.Ä.
- Warum mach ich das fachlich und/oder persönlich

My:

Fast and beautiful hair rendering

- asdf

2 Related Work

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3 Contribution

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$$t_e \leq \frac{t_i}{5} \qquad \{t_e \in \mathbb{Q}^+\}, \{t_i \in \mathbb{N}\} \quad (3.1)$$

4 Implementation

Lorem ipsum Operating System (OS) Ubuntu dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet. Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet. Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet.

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```
1 # Create usergroup and user
2 sudo addgroup hadoop
3 sudo adduser -ingroup hadoop hduser
4
5 # login as hadoop user and create rsa key
6 su - hduser
7 ssh-keygen -t rsa -P ""
8
9 # add to authorized keys
10 cat $HOME/.ssh/id_rsa.pub >> $HOME/.ssh/authorized_keys
11
12 # Initial login on host via ssh
13 ssh localhost
```

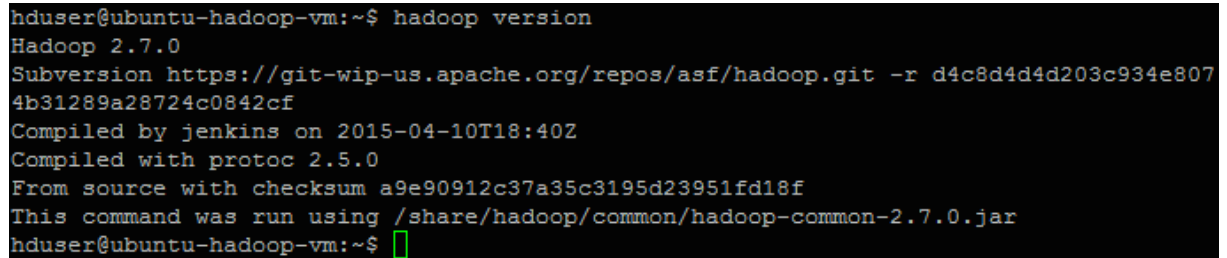
Listing 4.1: Konfiguration des Hadoop Users

```
1 $ cd /usr/local
2 $ sudo wget http://apache.openmirror.de/hadoop/common/current
3     /hadoop-2.7.1.tar.gz
4 $ sudo tar xzf hadoop-2.7.1.tar.gz
5 $ sudo mv hadoop-2.7.1 hadoop
6 $ sudo chown -R hduser:hadoop hadoop
```

Listing 4.2: Herunterladen und entpacke von Hadoop

```
1 # Java
2 export JAVA_HOME=/usr/lib/jvm/java-7-openjdk-amd64
3
4 # Hadoop
5 export HADOOP_INSTALL=/usr/local/hadoop
6 export PATH=$PATH:$HADOOP_INSTALL/bin
7 export PATH=$PATH:$HADOOP_INSTALL/sbin
8 export HADOOP_MAPRED_HOME=HADOOP_INSTALL
9 export HADOOP_COMMON_HOME=HADOOP_INSTALL
10 export HADOOP_HDFS_HOME=HADOOP_INSTALL
11 export HADOOP_YARN_HOME=HADOOP_INSTALL
```

Listing 4.3: Umgebungsvariablen für Hadoop



```
hduser@ubuntu-hadoop-vm:~$ hadoop version
Hadoop 2.7.0
Subversion https://git-wip-us.apache.org/repos/asf/hadoop.git -r d4c8d4d4d203c934e807
4b31289a28724c0842cf
Compiled by jenkins on 2015-04-10T18:40Z
Compiled with protoc 2.5.0
From source with checksum a9e90912c37a35c3195d23951fd18f
This command was run using /share/hadoop/common/hadoop-common-2.7.0.jar
hduser@ubuntu-hadoop-vm:~$
```

Figure 4.1: Ergebnis für die Kommandozeileingabe *hadoop version*

```
1 <configuration>
2   <property>
3     <name>fs.defaultFS</name>
4     <value>hdfs://localhost:9000</value>
5   </property>
6 </configuration>
```

Listing 4.4: Konfiguration in der core-site.xml

5 Conclusion

Fazit ziehen über das Projekt und die Arbeit. Welche Erkenntnisse wurden gewonnen?
Was hat gut/schlecht funktioniert? Wurden die eigenen Erwartungen erfüllt oder nicht?
War das Projekt erfolgreich?

Acronyms

API	Application Programming Interface
BDSG	Bundesdatenschutzgesetz
CEP	Complex Event Processing
DEA	Deterministischer endlicher Automat
EDA	Event Driven Architecture
GB	Gigabyte
GFS	Google File System
HDFS	Hadoop Distributed File System
HTTP	Hypertext Transfer Protocol
IDE	Integrated Development Environment
IP	Internetprotokoll
KB	Kilobyte
LTS	Long Term Support
MB	Megabyte
MPI	Message Passing Interface
MRC	Map Reduce Class
NAS	Network Attached Storage
NEA	Nichtdeterministischer endlicher Automat
NFS	Network File System
OS	Operating System
OSDI	Operating Systems Design and Implementations
PAP	Programmablaufplan
PDF	Portable Document Format
POM	Project Object Model
RFC	Request for Comments
RSA	Rivest, Shamir und Adleman
SAN	Storage Attached Network
SPOF	Single Point of Failure
SSH	Secure Shell
TMG	Telemediengesetz
VM	Virtuelle Maschine

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Bibliography

References

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Appendix

A. Screenshot NameNode Web-Interface

B. DVD Inhalt

C. DVD

A. Screenshot NameNode Web-Interface

Hadoop Overview Datanodes Datanode Volume Failures Snapshot Startup Progress Utilities ▾

Overview 'localhost:9000' (active)

Started:	Fri Jul 10 00:23:31 CEST 2015
Version:	2.7.0, rd4c8d4d4d203c934e8074b31289a28724c0842cf
Compiled:	2015-04-10T18:40Z by jenkins from (detached from d4c8d4d)
Cluster ID:	CID-322169a1-9f18-4284-9cfa-490bd79c1dd4
Block Pool ID:	BP-1249407956-127.0.1.1-1436480592942

Summary

Security is off.
Safemode is off.
1 files and directories, 0 blocks = 1 total filesystem object(s).
Heap Memory used 26.65 MB of 50.49 MB Heap Memory. Max Heap Memory is 966.69 MB.
Non Heap Memory used 30.99 MB of 32.25 MB Committed Non Heap Memory. Max Non Heap Memory is 214 MB.

Configured Capacity:	18.58 GB
DFS Used:	24 KB (0%)
Non DFS Used:	2.85 GB
DFS Remaining:	15.73 GB (84.67%)
Block Pool Used:	24 KB (0%)
DataNodes usages% (Min/Median/Max/stdDev):	0.00% / 0.00% / 0.00% / 0.00%
Live Nodes	1 (Decommissioned: 0)
Dead Nodes	0 (Decommissioned: 0)
Decommissioning Nodes	0
Total Datanode Volume Failures	0 (0 B)
Number of Under-Replicated Blocks	0
Number of Blocks Pending Deletion	0
Block Deletion Start Time	10.7.2015, 00:23:31

NameNode Journal Status

Current transaction ID: 1

Journal Manager	State
FileJournalManager(root=/tmp/hadoop-root/dfs/name)	EditLogFileOutputStream(/tmp/hadoop-root/dfs/name/current/edits_inprogress_0000000000000000001)

NameNode Storage

Storage Directory	Type	State
/tmp/hadoop-root/dfs/name	IMAGE_AND_EDITS	Active

Hadoop, 2014.

C. DVD Inhalt

└ Anwendung/	
– pom.xml	⇒ <i>Maven POM Datei</i>
└ conf/	⇒ <i>*.properties Dateien für Konfiguration</i>
└ src/	⇒ <i>Quellcode Dateien</i>
└ target/	
– Logfileanalyzer-1.0-SNAPSHOT.jar	⇒ <i>Ausführbare JAR-Datei</i>
└ site/apidocs/	⇒ <i>JavaDoc für Browser</i>
└ Literatur/	⇒ <i>PDF Literatur & E-Books</i>
└ Praesentationen/	
– Abschlusspraesentation.pptx	⇒ <i>Präsentation vom 21. August 2015</i>
– Abschlusspraesentation.pdf	
– Kickoffpraesentation.pptx	⇒ <i>Präsentation vom 03. Juni 2015</i>
– Kickoffpraesentation.pdf	
└ Sonstiges/	
– LineareRegression.xlsx	⇒ <i>Berechnung der linearen Regression</i>
└ Latex-Files/	⇒ <i>Editierbare L^AT_EX Dateien der Arbeit</i>
– bibliographie.bib	⇒ <i>Literaturverzeichnis</i>
– dokumentation.pdf	⇒ <i>Bachelorarbeit als PDF</i>
– dokumentation.tex	⇒ <i>Hauptdokument</i>
– einstellungen.tex	⇒ <i>Einstellungen</i>
└ ads/	⇒ <i>Header, Glosar, Abkürzungen, etc.</i>
└ content/	⇒ <i>Kapitel</i>
└ images/	⇒ <i>Bilder</i>
└ lang/	⇒ <i>Sprachdateien für L^AT_EX Template</i>