Project: Search Engine

Group: ip18groupR

IT UNIVERSITY OF COPENHAGEN

Group name: Busca.*
Introductory Programming
Master of Science in Software Development
IT University of Copenhagen
December 14, 2018

Contents

Chapter 1

Introduction

1.1 Introduction

The goal of htis project is to implement a large piece of software and develop web-based search engine. Several software development tools and tehniques have been used: version control(Git), testing (JUnit), debugging, documentation (JAvadoc), benchmarking, build tools (Gradle), and code review. The fallowing chapters describe the project in detail. Project is broken down into three main parts, Task 1: Fester Queries using an Inverted Index; Task 2: Refined Queries; Task 3: Ranking Algorithms.
Result
This projecct result in...

Chapter 2

Chapter 2: Faster Queries using an Inverted Index

2.1 Introduction

In this section we are evaluating three different approaches... lists, hash map and tree map
Inverted hash map and tree map...
Runned tests to compare the results, which

2.2 Indexes and Data Structures

2.2.1 SimpleIndex

bla bla bla

2.2.2 InvertedHashMap

bla bla bla [Ora18]

2.2.3 InvertedTreeMap

bla bla bla

2.3 Result

2.3.1 Setup

We compared the results of ... We made sure that that the environmetn when runnin the different test are as much as possible similar, e.g. no other programms running on the machine during the testing, that could affect the test performance results.
In table 2.1 the result of benchmark can be seen.
JMH/ avg/ ns/op link to it

Table 2.1: Benchmark results in nanoseconds for three type of indexes and test files

Test Files	SimpleIndex	Inv.IndexHashMap	Inv.IndexTreemap
EnWiki Tiny	72017.780 ns	ns	ns
EnWiki Small	9625105.989 ns	ns	ns
EnWiki Medium	272480512.475 ns	ns	ns

2.4 Analysis

2.4.1 Search Using Lists

2.4.2 Search Usnig InvertedHashMap

2.4.3 Search Usnig InvertedTreeMap

Chapter 3

Chapter 3: Refines Queries

3.1 Section 3.1

Text

3.2 Section 3.2

Text

3.2.1 Subsection 3.2.1

Text

Chapter 4

Chapter 4: Ranking Algorithms

4.1 Section 4.1

Text

4.2 Section 4.2

Text

4.2.1 Subsection 4.2.1

Text

Chapter 5

Chapter 5 Extensions

5.1 Section 5.1

Text

5.2 Section 5.2

Text

5.2.1 Subsection 5.2.1

Text

Chapter 6

Chapter 6 Conclusion

6.1 Section 6

Text

Appendix A

Test Figure reference

This is a test of the appendix and how to reference to something in it. Below is shown an image which is used for test[1]testimage.

[1] this is just for testing...`www.test.dk`

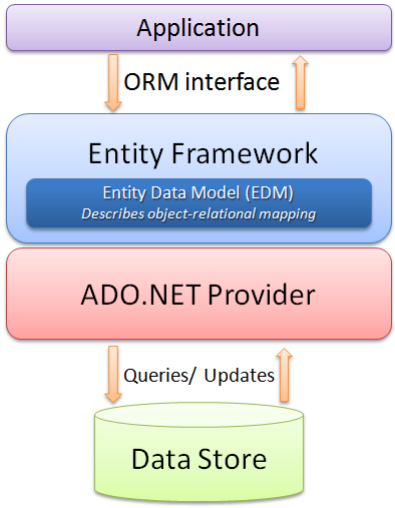

Figure A.1: Microsoft Entity Framework

Appendix B

Test tabel reference

This appendix is a test of creating and referencing a table in latex. In table ?? a example from Peter can be seen. can be seen.

Table B.1: Oversigt over testdeltagerne

Deltager	Navn	Stilling	Rolle
1	Ole Nørrekær Mortensen	Projektleder	Kundeadministrator
2	Allan Booker	Driftsleder	Inspektør
3	Ronni Bing Simonsen	Ingeniør	Kunde

Table B.2: Test af tabel

Columm1	Columm2
Celle 1	Celle 2
Celle 3	Celle 4

Tabellen har nummer B.2.

En lidt mere avanceret tabel:

I tabel B.3 kan du se hvordan teksten er justeret: l=left, c=centreret og r=right.

Table B.3: Test af tabel2

Celle 1..... Celle 4	Celle 2..... Celle 5	Celle 3..... Celle 6

Bibliography

[Ora18] Oracle. Class treemap. https://docs.oracle.com/javase/8/docs/api/java/util/TreeMap.html, 2018.