

ANTWERPEN MANAGEMENT SCHOOL

Applying Normalized System Theorem on Restful APIs using the C#.NET programming language

Author:
Gerco Koks

Supervisors:
Prof. Dr. Ing. Hans Mulder
Frans Verstreken, Mcs

*A thesis submitted in fulfillment of the requirements
for the degree of Master of Enterprise IT Architecture*

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Declaration of Authorship

I, Gerco Koks, declare that this thesis titled, “Applying Normalized System Theorem on Restful APIs using the C#.NET programming language” and the work presented in it are my own. I confirm that:

- This work was done wholly or mainly while in candidature for a research degree at this University.
- Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated.
- Where I have consulted the published work of others, this is always clearly attributed.
- Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work.
- I have acknowledged all main sources of help.
- Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself.

Signed:

Date:

“Thanks to my solid academic training, today I can write hundreds of words on virtually any topic without possessing a shred of information, which is how I got a good job in journalism.”

Dave Barry

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Abstract

Master of Enterprise IT Architecture

Department or School Name

Master of Enterprise IT Architecture

**Applying Normalized System Theorem on Restful APIs using the C#.NET
programming language**

by Gerco Koks

The Thesis Abstract is written here (and usually kept to just this page). The page is kept centered vertically so can expand into the blank space above the title too. . .

Acknowledgements

The acknowledgments and the people to thank go here, don't forget to include your project advisor...

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List of Abbreviations

LAH List Abbreviations **Here**
WSF What (it) Stands For

Physical Constants

Speed of Light $c_0 = 2.997\,924\,58 \times 10^8 \text{ m s}^{-1}$ (exact)

List of Symbols

a	distance	m
P	power	W (J s ⁻¹)
ω	angular frequency	rad

For/Dedicated to/To my...

Chapter 1

Introduction

Although considerable time has passed, Lehman laws of software evolution [1] are still very relevant these days for contemporary corporations delivering software IT solutions. The laws describe the balance between forces driving new developments on one hand, and forces that slow down progress on the other hand.

1.1 Problem statement

Companies that apply the Normalized Systems Theory research into their products are primarily using Java EE as a programming language. The company NSX for example has implemented their generation tools, modelling suite (Prime Radiant) and expander using this programming language. Java EE is still a very popular programming language for enterprise-, and IT organizations. Many software solutions are created and maintained using this programming language. The Normalized Systems Theorem is not only applicable to Java EE. The principles and design patterns that derive from the Normalized Systems Theorem are in fact applicable for any object-oriented programming languages.

Another example of a popular programming language in enterprise-, and IT organizations is C#. There is however no documented research, or proof of experiences on C# software projects using Normalized Systems Theory with the aspects of integration, expansion and rejuvenation.

1.2 Research questions

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Chapter 2

Theoretical background

2.1 Main Section 1

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Chapter 3

Research and design approach

3.1 Main Section 1

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Appendix A

Frequently Asked Questions

A.1 How do I change the colors of links?

The color of links can be changed to your liking using:

```
\hypersetup{urlcolor=red}, or  
\hypersetup{citecolor=green}, or  
\hypersetup{allcolor=blue}.
```

If you want to completely hide the links, you can use:

```
\hypersetup{allcolors=.}, or even better:  
\hypersetup{hidelinks}.
```

If you want to have obvious links in the PDF but not the printed text, use:

```
\hypersetup{colorlinks=false}.
```


Bibliography

- [1] M.M. Lehman. “Programs, Life Cycles, and Laws of Software Evolution”. In: *Proceedings of the IEEE* 68.9 (1980), pp. 1060–1076. ISSN: 0018-9219. DOI: [10 . 1109 / PROC . 1980 . 11805](https://doi.org/10.1109/PROC.1980.11805). URL: [http : / / ieeexplore . ieee . org / document / 1456074 /](http://ieeexplore.ieee.org/document/1456074/) (visited on 04/25/2022).