BELAJAR PHALCON

BELAJAR PHALCON
Buku Phalcon Untuk Pemula

Rolly M. Awangga
Politeknik Pos Indonesia

Kreatif Industri Nusantara

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To my parents

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4 Second Edited Book Sample Chapter Title **13**
George Smeal, Ph.D., Sally Smith, M.D. and Stanley Kubrick

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FOREWORD

This is the foreword to the book.

PREFACE

This is an example preface. This is an example preface. This is an example preface. This is an example preface.

R. K. WATTS

Durham, North Carolina
September, 2007

ACKNOWLEDGMENTS

From Dr. Jay Young, consultant from Silver Spring, Maryland, I received the initial push to even consider writing this book. Jay was a constant “peer reader” and very welcome advisor durying this year-long process.

To all these wonderful people I owe a deep sense of gratitude especially now that this project has been completed.

G. T. S.

ACRONYMS

ACGIH	American Conference of Governmental Industrial Hygienists
AEC	Atomic Energy Commission
OSHA	Occupational Health and Safety Commission
SAMA	Scientific Apparatus Makers Association

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GLOSSARY

NormGibbs	Draw a sample from a posterior distribution of data with an unknown mean and variance using Gibbs sampling.
pNull	Test a one sided hypothesis from a numberically specified posterior CDF or from a sample from the posterior
sintegral	A numerical integration using Simpson's rule

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SYMBOLS

A Amplitude

& Propositional logic symbol

a Filter Coefficient

$\mathcal{B}$ Number of Beats

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INTRODUCTION

CATHERINE CLARK, PHD.

Harvard School of Public Health
Boston, MA, USA

CHAPTER 1

PHALCON - OVERVIEW

Phalcon -
Overview

1.1 Pengenalan

Phalcon diperkenalkan sebagai salah satu Framework PHP terbaru, yang dikembangkan oleh sekelompok pengembang yang antusias. Phalcon adalah Framework yang digabungkan secara longgar, yang berarti memungkinkannya bisa membuat komponen objek menempel seperti lem, berdasarkan kebutuhan aplikasi.

Phalcon memberikan beberapa fitur yang unik sebagai keunggulan dibandingkan framework yang lain (baik framework tradisional atau yang sering dipakai) di pemrograman PHP. Diantaranya:

- Framework yang full-stack open source
- User hanya membutuhkan code yang lebih sedikit untuk mendapatkan keuntungan di beberapa komponen

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- bisa dipakai untuk membuat framework independen seperti yang dibutuhkan. Contohnya, jika kita hanya membutuhkan komponen cache yang dimiliki Phalcon, kita bisa menggunakannya di aplikasi apapun baik yang dibuat PHP atau menggunakan framework lain.
- Di sisi developer, mereka memounyai konsep MVC (Model-View-Controller) dan ORM (Object-Relational Modeling), bekerja dengan mudahnya dalam pemrograman Phalcon.

1.1.1 Performance

Perbedaan Framework Phalcon dengan Framework Yii dan Laravel [1].

Table 1.1 Perbandingan Performa Antar Framework

-	Yii	Laravel	Phalcon
Tipe dalam Proyek	Yii adalah spesialis membuat proyek skala besar seperti forums, portals, CMS, RESTful web services, dll.	Laravel biasa digunakan untuk aplikasi berbasis web, laravel terkenal karena sintaks nya yang sangat indah dan canggih	Phalcon diguakan untuk semua variasi proyek
Database yang Mendukung	Yii mendukung semua RDBMS dan non-RDBMS	Laravel mendukung semua RDBMS	Phalcon memberikan dukungan secara equal (sama) baik RDBMS maupun non-RDBMS
Bahasa Pemrograman	Framework Yii menggunakan bahasa pemrograman PHP saja	Laravel menggunakan bahasa pemrograman PHP dan mengikuti pattern MVC	Phalcon menggunakan bahasa pemrograman PHP dan C
Keterjangkauan	Yii cukup baik di gunakan di skala proyek kecil ke menengah	Laravel punya keterjangkauan yang tinggi dalam skala proyek	Phalcon cocok untuk proyek skala menengah
Performa	Sedikit lambat	Performa tinggi namun masih dibawah Phalcon	Performa Tinggi

1.1.1.1 This is the subsubsection

Here is some text after the subsubsection. Here is some text after the subsubsection. Here is some text after the subsubsection. Here is some text after the subsubsection.

This is the paragraph Here is some normal text. Here is some normal text. Here is some normal text. Here is some normal text.

1.2 Tips On Special Section Heads

Here are some things you can do for a special section head.

1.3 Break Long Section heads with double backslash

Here is some normal text. Here is some normal text. Here is some normal text.

1.4 Here is a Section Title

See this section head for information on how to explicitly break lines in table of contents.

1.5 How to get lower case in section head: pH

Here is some normal text. Here is some normal text. Here is some normal text.

1.6 How to use a macro that has both upper and lower case parts: V_{Txyz}

See the top of this file where the definition and box were set.

1.7 Equation

For optimal vertical spacing, no blank lines before or after equations

$$\alpha\beta\Gamma\Delta \tag{1.1}$$

as you see here.

CHAPTER 2

ENVIROMENTAL SETUP

2.1 Aplikasi yang dibutuhkan

Memerlukan XAMPP untuk instalasi Framework Phalcon.

- Step 1: Download Install lah file DLL (Dynamic Link Library) Phalcon di link https://phalconphp.com/en/download, sesuaikan file dll nya dengan konfigurasi versi XAMPP Anda.
- Step 2: Extract phalcon-php.dll file ke direktori /php/ext di folder XAMPP.
- Step 3: Edit file php.ini didalam folder /XAMPP/php/php.ini. Tambahkan "extension=php_phalcon.dll" tanpa tanda kutip ke baris akhir php.ini. Sesuai dengan gambar 2.2
- Step 4: Setelah itu, cek di localhost/dashboard/phpinfo.php, akan terdaftar library phalcon disana.

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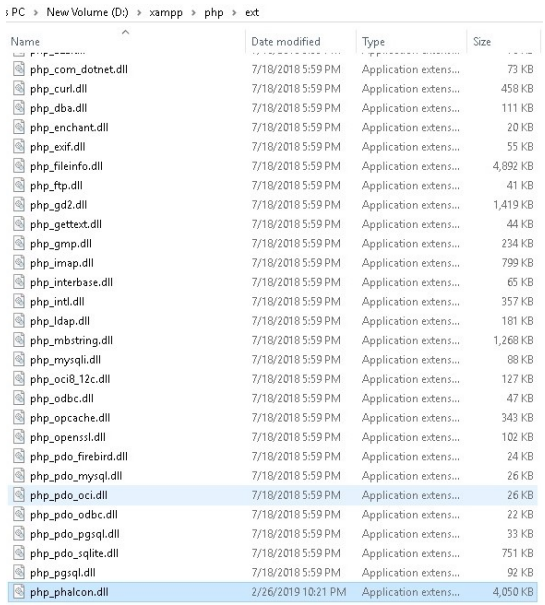

Figure 2.1 Masukkan file extension-nya disini

- Step 5: Install devtools master di situs https://github.com/phalcon/phalcon-devtools, simpan di direktori C, lalu Set Path Variable nya dengan menekan windows+R di keyboard, lalu ketikkan ”sysdm.cpl SystemProperties” tanpa tanda kutip, masuk tab advance, lalu enviromental variables, klik new, dan masukkan path nya:

- Step 6: Path variable ini membantu Anda agar bisa menjalankan Phalcon Framework via cmd, terutama jika ingin membuat project yang baru:

- Step 7: Setelah masuk cmd, ketikkan command seperti di 2.1.

Listing 2.1 Command untuk cara menambah project baru

```
phalcon create-project <project-name>
```

- Step 8: Project berhasil dibuat! masuk ke URL localhost/namaprojectanda

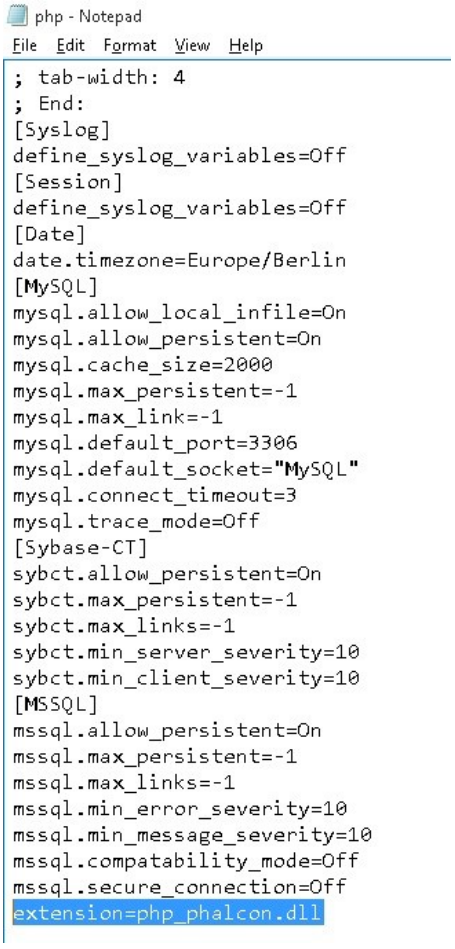

Figure 2.2 Apa yang harus di-edit di file php.ini

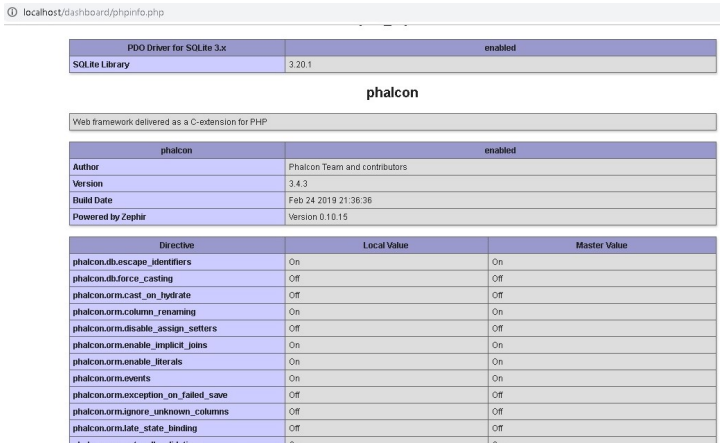

Figure 2.3 Jika berhasil memasukkan ekstensi phalcon-nya

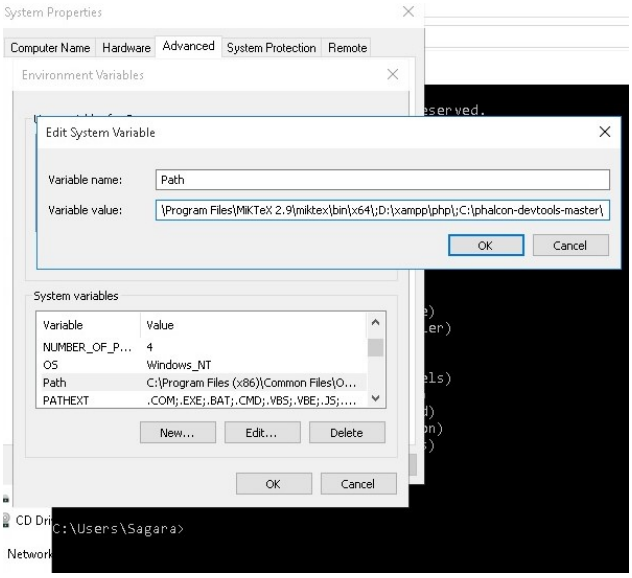

Figure 2.4 Masukkan path phalcon-devtools nya

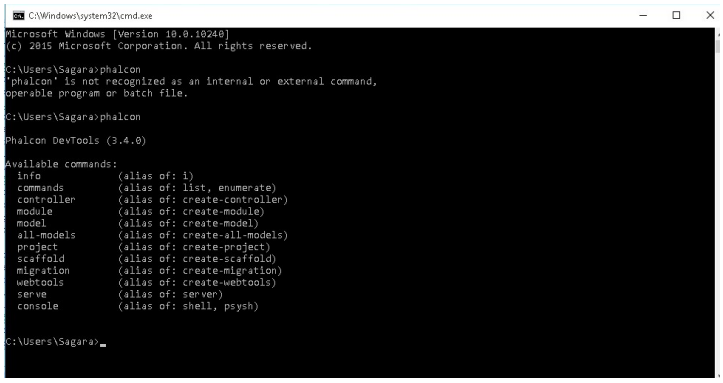

Figure 2.5 Test di cmd apakah phalcon-devtools sudah terinstall atau belum

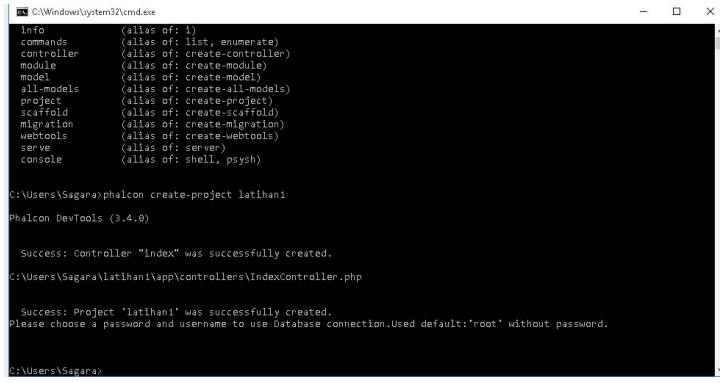

Figure 2.6 Menambahkan Project Baru

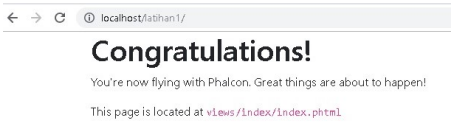

Figure 2.7 Hasil new project

CHAPTER 3

STRUKTUR APLIKASI

3.1 Struktur Aplikasi

Didalam project Framework Phalcon, ada beberapa folder dan file penting dan menjadikan sebuah struktur aplikasi, berikut strukturnya sesuai dengan gambar 3.1 Berikut penjelasan dari setiap struktur folder dan filenya:

3.1.1 App

folder ini berisikan script yang paling penting di project. Sebagai bagian terkomplit dari aplikasi web.

3.1.1.1 Config folder *config* berfungsi untuk membantu konfigurasi yang pasti dijalankan untuk menjalankan aplikasi secara lancar. Contohnya konfigurasi basis data, *library*, dan *services*.

3.1.1.2 Controllers Berfungsi untuk memproses *requests* dan menjalankan *response* dari *requests* tersebut.

3.1.1.3 Library Berisikan *library* dari luar *library* bawaan Phalcon.

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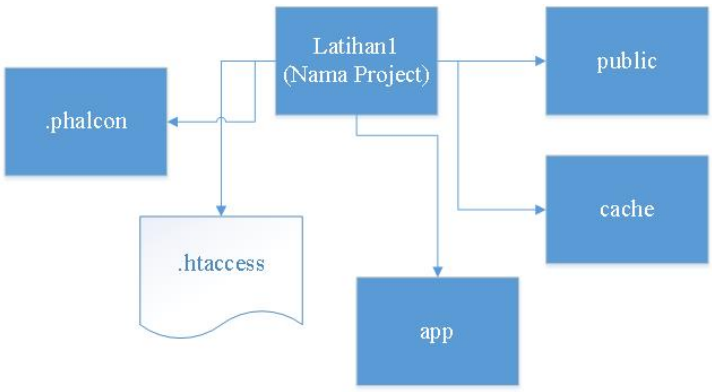

Figure 3.1 Struktur yang ada didalam folder project Phalcon Framework

3.1.1.4 Migrations Berisikan semua *file* yang berhubungan dengan migrasi data. Dimana data tersebut juga bisa dipakai di framework lain.

3.1.1.5 Models Berisikan logika-logika yang dibutuhkan untuk berinteraksi dengan basis data yang dipakai. Biasanya dipakai untuk representasi data.

3.1.1.6 Views Di folder ini terdapat semua *view* yang berhubungan dengan aplikasi web. Bisa dilihat oleh *end-user* menggunakan bantuan dari *Controller*

3.1.2 Cache

Direktori ini berfungsi untuk semua yang berhubungan dengan data yang memerlukan *Caching*, yang mana akan membantu performa aplikasinya itu sendiri

3.1.3 Public

Disini termasuk semua folder yang berhubungan dengan manajemen aset seperti CSS, JavaScript, file hasil Upload, dan beberapa meta data

3.1.4 File .htaccess

Web Server yang berjalan di Apache Server memerlukan .htaccess sebagai file konfigurasi. Ketika ditempatkan di direktori nya, semua konfigurasi yang ditulis di file itu akan dijalankan selama server web nya mulai berjalan.

CHAPTER 4

SECOND EDITED BOOK SAMPLE CHAPTER TITLE

George Smeal, Ph.D.[1], Sally Smith, M.D.[2] and Stanley Kubrick[1]

[1]AT&T Bell Laboratories Murray Hill, New Jersey
[2]Harvard Medical School, Boston, Massachusetts

4.1 Sample Section

Here is some sample text.

4.2 Example, Figure and Tables

EXAMPLE 4.1 Optional Example Name

Use Black's law [Equation (6.3)] to estimate the reduction in useful product life if a metal line is initially run at 55°C at a maximum line current density.

illustration here

Figure 4.1 Short figure caption.

Figure 4.2 Oscillograph for memory address access operations, showing 500 ps address access time and superimposed signals of address access in 1 kbit memory plane.

Table 4.1 Small Table

one	two	three	four
C	D	E	F

Table 4.2 Effects of the two types of $\alpha\beta \sum_{B}^{A}$ scaling proposed by Dennard and co-workers[a,b]

Parameter	κ Scaling	κ, λ Scaling
Dimension	κ^{-1}	λ^{-1}
Voltage	κ^{-1}	κ^{-1}
Currant	κ^{-1}	λ/κ^{2}
Dopant Concentration	κ	λ^{2}/κ

[a] Refs. 19 and 20.

[b] $\kappa, \lambda > 1$.

4.2.1 Side by Side Tables and Figures

Space for figure...

Figure 4.3 This caption will go on the left side of the page. It is the initial caption of two side-by-side captions.

Space for second figure...

Figure 4.4 This caption will go on the right side of the page. It is the second of two side-by-side captions.

Table 4.3 Table Caption

one	two	three	four
a	little	sample	table

Table 4.4 Table Caption

A	B	C	D
a	second little	sample	table

The command `\sidebyside{}{}` works similarly for tables:

When using `\sidebyside`, one must use the cross referencing command `\label{}` after and *outside* of `\caption{}`:

```
\begin{table}
\sidebyside{\caption{Table Caption}\label{tab1}
first table}
{\caption{Table Caption}\label{tab2} second table}
\end{table}
```

or,

```
\begin{figure}
\sidebyside{\vskip<dimen>\caption{fig caption}\label{fig1}}
{\vskip<dimen>\caption{fig caption}\label{fig2}}
\end{figure}
```

4.3 Algorithm

This is a sample algorithm.

Algorithm 4.1

state_transition algorithm {
for each neuron $j \in \{0, 1, \ldots, M-1\}$
{
calculate the weighted sum S_j using Eq. (6);
if ($S_j > t_j$)
{turn ON neuron; $Y_1 = +1$}
else if ($S_j < t_j$)
{turn OFF neuron; $Y_1 = -1$}
else
{no change in neuron state; y_j remains unchanged;}
}
}

Here is some normal text. Here is some normal text. Here is some normal text. Here is some normal text. Here is some normal text. Here is some normal text. Here is some normal text. Here is some normal text. Here is some normal text. Here is some normal text. Here is some normal text. Here is some normal text. Here is some normal text. Here is some normal text.

This is a sample of extract or quotation. This is a sample of extract or quotation. This is a sample of extract or quotation.

1. This is the first item in the numbered list.

2. This is the second item in the numbered list. This is the second item in the numbered list. This is the second item in the numbered list.

- This is the first item in the itemized list.

- This is the first item in the itemized list. This is the first item in the itemized list. This is the first item in the itemized list.

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This is the first item in the itemized list. This is the first item in the itemized list. This is the first item in the itemized list.

PROBLEMS

4.1 For Hooker's data, Problem 1.2, use the Box and Cox and Atkinson procedures to determine a appropriate transformation of PRES in the regression of PRES on TEMP. find $\hat{\lambda}$, $\tilde{\lambda}$, the score test, and the added variable plot for the score. Summarize the results.

4.2 The following data were collected in a study of the effect of dissolved sulfur on the surface tension of liquid copper (Baes and Killogg, 1953).

x = Weight % sulfur	Y = Decrease in Surface Tension (dynes/cm), two Replicates	
0. 034	301	316
0. 093	430	422
0. 30	593	586

a) Find the transformations of X and Y sot that in the transformed scale the regression is linear.

b) Assuming that X is transformed to $\ln(X)$, which choice of Y gives better results, Y or $\ln(Y)$? (Sclove, 1972).

c) In the case of α_1?

d) In the case of α_2?

4.3 Examine the Longley data, Problem 3.3, for applicability of assumptions of the linear model.

4.4 In the case of Γ_1?

4.5 In the case of Γ_2?

EXERCISES

4.1 For Hooker's data, Exercise 1.2, use the Box and Cox and Atkinson procedures to determine a appropriate transformation of PRES in the regression of PRES on TEMP. find $\hat{\lambda}$, $\tilde{\lambda}$, the score test, and the added variable plot for the score. Summarize the results.

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4.3 Examine the Longley data, Problem 3.3, for applicability of assumptions of the linear model.

4.4 In the case of Γ_1?

4.5 In the case of Γ_2?

4.4 Summary

This is a summary of this chapter. Here are some references: [1], [4].

REFERENCES

1. J. S. Kilby, "Invention of the Integrated Circuit," *IEEE Trans. Electron Devices,* **ED-23,** 648 (1976).
2. R. W. Hamming, *Numerical Methods for Scientists and Engineers*, Chapter N-1, McGraw-Hill, New York, 1962.
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Appendix: This is the Chapter Appendix Title

This is an appendix with a title.

$$\alpha\beta\Gamma\Delta \tag{A.1}$$

Figure 4-A.1 This is an appendix figure caption.

Table 4-A.1 This is an appendix table caption

Date	Event
1867	Maxwell speculated the existence of electromagnetic waves.
1887	Hertz showed the existence of electromagnetic waves.
1890	Branly developed technique for detecting radio waves.
1896	Marconi demonstrated wireless telegraph.
1897	Marconi patented wireless telegraph.
1898	Marconi awarded patent for tuned communication.
1898	Wireless telegraphic connection between England and France established.

Appendix

This is a Chapter Appendix without a title.

Here is a math test to show the difference between using Computer Modern math fonts and MathTimes math fonts. When MathTimes math fonts are used the letters in an equation will match TimesRoman italic in the text. (*g, i, y, x, P, F, n, f, etc.*) Caligraphic fonts, used for $\mathcal{ABC}$ below, will stay the same in either case.

$$g_i(y|f) = \sum_x P(x|F_n) f_i(y|x) \mathcal{ABC} \tag{B.1}$$

where $g_i(y|F_n)$ is the function specifying the probability an object will display a value y on a dimension i given F_n the observed feature structure of all the objects.

APPENDIX A

THIS IS THE APPENDIX TITLE

This is an appendix with a title.

$$\alpha\beta\Gamma\Delta \tag{A.1}$$

Figure A.1 This is an appendix figure caption.

Table A.1 Appendix table caption

Alpha	Beta	Gamma	Delta
α	β	Γ	Δ

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APPENDIX B

This is an appendix without a title.

Here is a math test to show the difference between using Computer Modern math fonts and MathTimes math fonts. When MathTimes math fonts are used the letters in an equation will match TimesRoman italic in the text. (*g, i, y, x, P, F, n, f, etc.*) Caligraphic fonts, used for $\mathcal{ABC}$ below, will stay the same in either case.

$$g_i(y|f) = \sum_x P(x|F_n) f_i(y|x) \mathcal{ABC} \tag{B.1}$$

where $g_i(y|F_n)$ is the function specifying the probability an object will display a value y on a dimension i given F_n the observed feature structure of all the objects.

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APPENDIX C

ALTERNATE REFERENCE STYLES

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REFERENCES

1. J. Samra, “Comparing performance of plain php and four of its popular frameworks,” 2015.