

SURVEY METHODOLOGY

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This is the Subtitle

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To my parents

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CONTENTS IN BRIEF

CONTENTS

LIST OF FIGURES

LIST OF TABLES

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

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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

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 numerically specified posterior CDF or from a sample from the posterior
sintegral	A numerical integration using Simpson's rule

SYMBOLS

- A Amplitude
- $\&$ Propositional logic symbol
- a Filter Coefficient
- \mathcal{B} Number of Beats

INTRODUCTION

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The era of modern began in 1958 with the invention of the integrated circuit by J. S. Kilby of Texas Instruments [?]. His first chip is shown in Fig. I. For comparison, Fig. I.2 shows a modern microprocessor chip, [?].
This is the introduction. This is the introduction. This is the introduction. This is the introduction. This is the introduction. This is the introduction.

$$ABC\mathcal{D}\mathcal{E}\mathcal{F}\alpha\beta\Gamma\Delta\sum_{def}^{abc} \tag{I.1}$$

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PART I

SUBMICRON SEMICONDUCTOR MANUFACTURE

CHAPTER 1

HOME

CHAPTER 2

OVERVIEW

CHAPTER 3

ENVIRONMENT SETUP

CHAPTER 4

BASIC SYNTAX

CHAPTER 5

VARIABLE TYPE

CHAPTER 6

BASIC OPERATOR

CHAPTER 7

DESICION MAKING

CHAPTER 8

LOOP

CHAPTER 9

NUMBERS

CHAPTER 10

STRINGS

CHAPTER 11

LISTS

CHAPTER 12

TUPLES

CHAPTER 13

DICTIONARY

CHAPTER 14

FUNCTIONS

CHAPTER 15

MODULES

CHAPTER 16

FILES I/O

CHAPTER 17

EXCEPTIONS

CHAPTER 18

CLASSESS/OBJECT

CHAPTER 19

REG EXPRESSION

CHAPTER 20

CGI PROGRAMMING

CHAPTER 21

DATABASES ACCESS

CHAPTER 22

SENDING EMAIL

CHAPTER 23

MULTITHREADING

CHAPTER 24

XML PROCESSING

2.1 Arsitektur Parsing XML dan API 2.2 Parsing XML dengan API SAX 2.3 Parsing XML dengan API DOM

Document Object Model (DOM) adalah API lintas bahasa dari World Wide Web Consortium (W3C) untuk mengakses dan memodifikasi dokumen XML.

DOM sangat berguna untuk aplikasi akses acak. SAX hanya memungkinkan melihat satu bit dokumen sekaligus. Jika melihat satu elemen SAX, tidak memiliki akses ke yang lain.

Berikut adalah cara termudah untuk memuat dokumen XML dengan cepat dan membuat objek minidom menggunakan modul `xml.dom`. Objek minidom menyediakan metode parsing sederhana yang dengan cepat memuat pohon DOM dari file XML.

Contoh frase memanggil fungsi parsing (file `[,parsing]`) dari objek minidokumen untuk mengurai file XML yang ditunjuk oleh file ke objek pohon DOM.

```
#!/usr/bin/python
```

```
from xml.dom.minidom import parse
import xml.dom.minidom
```

```

# Open XML document using minidom parser
DOMTree = xml.dom.minidom.parse("movies.xml")
collection = DOMTree.documentElement
if collection.hasAttribute("shelf"):
    print "Root element : %s" % collection.getAttribute("shelf")

# Get all the movies in the collection
movies = collection.getElementsByTagName("movie")

# Print detail of each movie.
for movie in movies:
    print "*****Movie*****"
    if movie.hasAttribute("title"):
        print "Title: %s" % movie.getAttribute("title")

    type = movie.getElementsByTagName('type')[0]
    print "Type: %s" % type.childNodes[0].data
    format = movie.getElementsByTagName('format')[0]
    print "Format: %s" % format.childNodes[0].data
    rating = movie.getElementsByTagName('rating')[0]
    print "Rating: %s" % rating.childNodes[0].data
    description = movie.getElementsByTagName('description')[0]
    print "Description: %s" % description.childNodes[0].data

```

Ini akan menghasilkan hasil sebagai berikut :

```

Root element : New Arrivals
*****Movie*****
Title: Enemy Behind
Type: War, Thriller
Format: DVD
Rating: PG
Description: Talk about a US-Japan war
*****Movie*****
Title: Transformers
Type: Anime, Science Fiction
Format: DVD
Rating: R
Description: A schientific fiction
*****Movie*****
Title: Trigun
Type: Anime, Action
Format: DVD
Rating: PG
Description: Vash the Stampede!
*****Movie*****

```

Title: Ishtar
 Type: Comedy
 Format: VHS
 Rating: PG
 Description: Viewable boredom

2.4 Membangun Parsing Document XML menggunakan Python

Python mendukung untuk bekerja dengan berbagai bentuk markup data terstruktur. Selain mengurai `xml.etree.ElementTree` mendukung pembuatan dokumen XML yang terbentuk dengan baik dari objek elemen yang dibangun dalam aplikasi. Kelas elemen digunakan saat sebuah dokumen diurai untuk mengetahui bagaimana menghasilkan bentuk serial dari isinya kemudian dapat ditulis ke sebuah file.

Untuk membuat instance elemen gunakan fungsi elemen constructor dan `SubElement()` pabrik.

Import `xml.etree.ElementTree` as `xml`

```
filename = "/home/abc/Desktop/test_xml.xml "
root = xml.Element("Users")
userelement = xml.Element("user")
root.append(userelement)
```

Bila menjalankan ini, akan menghasilkan sebagai berikut :

```
<?xml version="1.0" encoding="UTF-8" ?>
<Users>
  <user>
    <user>
  </Users>
```

Tambahkan anak-anak pengguna

```
Uid = xml.SubElement(userelement, "uid")
Uid.text = "1"
```

```
FirstName = xml.SubElement(userelement, "FirstName")
FirstName.text = "testuser"
```

```
LastName = xml.SubElement(userelement, "LastName")
LastName.text = "testuser"
```

```
Email = xml.SubElement(userelement, "Email")
Email.text = "mailto:testuser@test.comtestuser@test.com"
```

```
state = xml.SubElement(userelement, "state")
state.text = "xyz"
```



```
location = xml.SubElement(userelement, "location")
location.text = abc
```

```
tree = xml.ElementTree(root)
with open(filename, "w") as fh:
    tree.write(fh)
```

Pertama buat elemen root dengan menggunakan fungsi *ElementTree*. Kemudian membuat elemen pengguna dan menambahkannya ke root. Selanjutnya membuat *SubElement* dengan melewati elemen pengguna (userelement) ke *SubElement* beserta namanya seperti "FirstName". Kemudian untuk setiap *SubElement* tetapkan properti teks untuk memberi nilai. Di akhir, membuat *ElementTree* dan menggunakannya untuk menulis XML ke file.

Jika menjalankan ini akan menjadi sebagai berikut :

```
<users>
  <user>
    <uid>1</uid>
    <FirstName>testuser</FirstName>
    <LastName>testuser</LastName>
    <Email>mailto:testuser@test.com %3c/Emailtestuser@test.com</Email>
  </user>
  <state>xyz</state>
  <location>abc</location>
</users>
```

Parsing XML Documen :

```
import xml.etree.ElementTree as ET
tree = ET.parse(Your_XML_file_path)
root = tree.getroot()
```

Disini *getroot()* akan mengembalikan elemen dari dokumen XML

```

;Users version= " 1.0 " language= " SPA " ;
  ;user;
    ;uid;1;/uid;
    ;FirstName;testuser;/FirstName;
    ;LastName;testuser;/LastName;
    ;Email;testuser@tes.com;/Email;
    ;state;xyz;/state;
    ;location;abc;/location;
  ;/user;
;/Users;
```