



Institute of Space Technology

Assignment of Compiler Construction
(Assignment No.2)

Title: XML Parser/Parsing

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200901057

Submitted To:
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Due Date: 14-01-2023
BSCS-01-B

Question#01

In this assignment you are required to parse an xml file (provided in attachment) file using python or any language of your preference. The data to be extracted from file includes:

1. Book_Id
2. Author_Name
3. Title
4. Genre
5. Price
6. Publish_date
7. Description

After extracting the above information from the tags, you have to create an excel file to record the data in the following table format.

Book id	Author Name	Title	Genre	Price	Publish_date	Description
Bk101	Gambardella	Developer guide	Computer	44.95	2000-10-01	An in-depth look at creating applications with XML

Solution:

Python Code At Backend:

```
import xml.etree.ElementTree as ET
mytree=ET.parse('compiler.xml')
myroot=mytree.getroot()
print(myroot)
for element in myroot.findall("book"):
    print('_____')
    print(element.tag, element.attrib)
    for child in element:
        print(child.tag , '=>',child.text)
```

Output (Python File):

```
book {'id': 'bk101'}
author => Gambardella, Matthew
title => XML Developer's Guide
genre => Computer
price => 44.95
publish_date => 2000-10-01
description => An in-depth look at creating applications
              with XML.

book {'id': 'bk102'}
author => Ralls, Kim
title => Midnight Rain
genre => Fantasy
price => 5.95
publish_date => 2000-12-16
description => A former architect battles corporate zombies,
              an evil sorceress, and her own childhood to become queen
              of the world.

book {'id': 'bk103'}
author => Corets, Eva
title => Maeve Ascendant
genre => Fantasy
price => 5.95
publish_date => 2000-11-17
description => After the collapse of a nanotechnology
              society in England, the young survivors lay the
              foundation for a new society.

book {'id': 'bk104'}
author => Corets, Eva
title => Oberon's Legacy
genre => Fantasy
price => 5.95
publish_date => 2001-03-10
description => In post-apocalypse England, the mysterious
              agent known only as Oberon helps to create a new life
              for the inhabitants of London. Sequel to Maeve
              Ascendant.

book {'id': 'bk105'}
author => Corets, Eva
title => The Sundered Grail
genre => Fantasy

title => The Sundered Grail
genre => Fantasy
price => 5.95
publish_date => 2001-09-10
description => The two daughters of Maeve, half-sisters,
              battle one another for control of England. Sequel to
              Oberon's Legacy.

book {'id': 'bk106'}
author => Randall, Cynthia
title => Lover Birds
genre => Romance
price => 4.95
publish_date => 2000-09-02
description => When Carla meets Paul at an ornithology
              conference, tempers fly as feathers get ruffled.

book {'id': 'bk107'}
author => Thurman, Paula
title => Splish Splash
genre => Romance
price => 4.95
publish_date => 2000-11-02
description => A deep sea diver finds true love twenty
              thousand leagues beneath the sea.

book {'id': 'bk108'}
author => Knorr, Stefan
title => Creepy Crawlies
genre => Horror
price => 4.95
publish_date => 2000-12-06
description => An anthology of horror stories about roaches,
              centipedes, scorpions  and other insects.

book {'id': 'bk109'}
author => Kress, Peter
title => Paradox Lost
genre => Science Fiction
price => 6.95
publish_date => 2000-11-02
description => After an inadvertant trip through a Heisenberg
              Uncertainty Device, James Salway discovers the problems
              of being quantum.
```

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

book {'id': 'bk110'}
author => O'Brien, Tim
title => Microsoft .NET: The Programming Bible
SAX and more.

book {'id': 'bk112'}
author => Galos, Mike
title => Visual Studio 7: A Comprehensive Guide
genre => Computer
price => 49.95
publish date => 2001-04-16
description => Microsoft Visual Studio 7 is explored in depth,
looking at how Visual Basic, Visual C++, C#, and ASP+ are
integrated into a comprehensive development
environment.

```

Output (Excel File):

	A	B	C	D	E	F	G
1	author	title	genre	price	publish_date	description	Attribute: id
2	Gambardella, Matthew	XML Developer's Guide	Computer	44.95	01/10/2000	An in-depth look at creating applications with XML.	bk101
3	Ralls, Kim	Midnight Rain	Fantasy	5.95	16/12/2000	A former architect battles corporate zombies, an evil sorceress, and her own childhood to become	bk102
4	Corets, Eva	Maeve Ascendant	Fantasy	5.95	17/11/2000	After the collapse of a nanotechnology society in England, the young survivors lay the foundation	bk103
5	Corets, Eva	Oberon's Legacy	Fantasy	5.95	10/03/2001	In post-apocalypse England, the mysterious agent known only as Oberon helps to create a new life	bk104
6	Corets, Eva	The Sundered Grail	Fantasy	5.95	10/09/2001	The two daughters of Maeve, half-sisters, battle one another for control of England. Sequel to	bk105
7	Randall, Cynthia	Lover Birds	Romance	4.95	02/09/2000	When Carla meets Paul at an ornithology conference, tempers fly as feathers get ruffled.	bk106
8	Thurman, Paula	Spish Splash	Romance	4.95	02/11/2000	A deep sea diver finds true love twenty thousand leagues beneath the sea.	bk107
9	Knorr, Stefan	Creepy Crawlies	Horror	4.95	06/12/2000	An anthology of horror stories about roaches, centipedes, scorpions and other insects.	bk108
10	Kress, Peter	Paradox Lost	Science Fiction	6.95	02/12/2000	After an inadvertent trip through a Heisenberg Uncertainty Device, James Salway discovers the pr	bk109
11	O'Brien, Tim	Microsoft .NET: The Programming Bible	Computer	36.95	09/12/2000	Microsoft's .NET initiative is explored in detail in this deep programmer's reference.	bk110
12	O'Brien, Tim	MSXML3: A Comprehensive Guide	Computer	36.95	01/12/2000	The Microsoft MSXML3 parser is covered in detail, with attention to XML DOM interfaces, XSLT p	bk111
13	Galos, Mike	Visual Studio 7: A Comprehensive Guide	Computer	49.95	16/04/2001	Microsoft Visual Studio 7 is explored in depth, looking at how Visual Basic, Visual C++, C#, and ASP	bk112

Github Link:

<https://github.com/abdullahmad12/XML-Parser>