ASSIGNMENT#3

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SECTION: BSCS_01 (B)

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CODE:

```python
import xml.etree.ElementTree as ET
from prettytable import PrettyTable

# parse the xml file
tree = ET.parse('compiler.xml')
root = tree.getroot()

# create a table to hold the data
table = PrettyTable()


# add columns to the table
print("THE INFORMATION IS \n")
table.field_names = [ 'BOOK_ID','AUTHOR', 'TITLE','GENRE',
'PRICE','PUBLISH_DATE', 'DESCRIPTION']

# iterate through the xml elements and add them to the table
for child in root:
    table.add_row([child.get("id"),child.find("author").text,child.find("title").text,
            child.find("genre").text,child.find("price").text,
            child.find("publish_date").text,
            child.find("description").text])

# print the table
print(table)
```

OUTPUT:

```
THE INFORMATION IS

+--------+--------------------+---------------------------------+----------+-------+--------------+----------------------------
| BOOK_ID |       AUTHOR       |              TITLE              |  GENRE   | PRICE | PUBLISH_DATE |                 DESCRIPTION
+--------+--------------------+---------------------------------+----------+-------+--------------+----------------------------
| bk101  | Gambardella, Matthew |      XML Developer's Guide      | Computer | 44.95 |  2000-10-01  |       An in-depth look at creating
|        |                    |                                 |          |       |              |                   with XML.
| bk102  |    Ralls, Kim      |          Midnight Rain          | Fantasy  |  5.95 |  2000-12-16  |    A former architect battles cor
|        |                    |                                 |          |       |              | an evil sorceress, and her own ch
```

```
|        |                    |                                 |          |       |              |      detail in this deep progra
| bk111  |    O'Brien, Tim    |   MSXML3: A Comprehensive Guide  | Computer | 36.95 |  2000-12-01  |        The Microsoft MSXML3 parser
|        |                    |                                 |          |       |              | detail, with attention to XML DOM in
|        |                    |                                 |          |       |              |                    SAX and mor
| bk112  |    Galos, Mike     | Visual Studio 7: A Comprehensive Guide | Computer | 49.95 |  2001-04-16  |     Microsoft Visual Studio 7 is ex
|        |                    |                                 |          |       |              |   looking at how Visual Basic, Visu
|        |                    |                                 |          |       |              |       integrated into a comprehe
|        |                    |                                 |          |       |              |                     environmen
+--------+--------------------+---------------------------------+----------+-------+--------------+----------------------------
```

EXPLANATION:

we have used import xml.etree.ElementTree as ET to parse the XML file in python.

The prettytable library has been installed first, in order to generate the table.

Then we have parsed the xml file using ET.parse("file.xml) and generated the table.

.field_name (to add the field names to table).

REFERENCE:

https://github.com/vanyaahmed20?tab=repositories

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