

UNIVERSITY OF THE WEST INDIES
Department of Computing
COMP1127 – Introduction to Computing II
Lab 02

The Bookshop sells a variety of books, by a number of authors. The data kept on a particular book is listed below:

- ISBN - is a unique 13 digit commercial book identifier.
- Title - the name of the book.
- Author - the names of the persons who wrote the book.
- Genre - the type of book e.g. fiction, children, computer science text.
- Year of Publication - the year the title was printed.
- Quantity in Stock - the total number of copies of the title The Bookshop has available.
- Sale Price - the price at which the title is offered to a customer.

The functions which create a book and a bookshop are included in the file lab6_code.py. In the file an instance of uwi_bookshop is created and 3 books are added to the bookshop.

1. Write the following accessor functions in python which take a book as input and return the corresponding attribute of a book.
 - `get_isbn(book)` – returns the isbn of the given book
 - `get_title(book)` – returns the title of the given book
 - `get_authors(book)` – returns the list of authors of the given book
 - `get_genre(book)` – returns the genre of the given book
 - `get_year(book)` – returns the year the given book was published
 - `get_qty(book)` – returns the number of copies of the given book
 - `get_saleprice(book)` – returns the price of the given book
2. Write a function `co_authors` which takes a book as a parameter and returns the list of co_authors if the book is written by multiple authors and returns an empty list if it is single authored. [Hint: make use of the function `len` to see if the book is authored by multiple persons.]

```
>>> co_authors(b1)
['Sussman G.', 'Sussman J.']
>>> co_authors(b2)
[ ]
```

3. Write a function `check_price` which takes a bookshop and an isbn and returns the corresponding sale price of the book. If the isbn does not exist print a message “Book not found”. [Use the accessor function to retrieve the isbn of the book in the bookshop]

```
>>> check_price(uwi_bookshop, "9780262510875")
7340.0
>>> check_price(uwi_bookshop, "978026251085")
Book not found
```

4. Write a function `books_to_reorder` which takes a bookshop and an integer representing reorder level. All books in the bookshop whose quantities are below this reorder are added to a list. For each book that needs to be reordered only the isbn and the titles are added to the list as tuples.

```
>>> books_to_reorder(uwi_bookshop,15)
[('9780262510875', 'Struc. & Interp of Comp. Prog.'),
 ('9780521644082', 'Haskell School of Expr.')]

```