

**Informatics Institute of Technology
Business School
Assignment Cover Sheet
DOC334**

Course:	Foundation Certificate Programme
Unit Code and Description:	DOC334 Introduction to Programming in Python – P2
Module Leader:	Mr. Sudarshana Welihinda
Assignment Number:	1
Assignment Type:	Individual Coursework (ICW)
Issue Date:	14th March 2022
Hand – in – Date:	18th April 2022 (4 extra days are given)
Deadline:	on or before 10:00:59 PM
Qualifying mark:	40%

The department is **NOT RESPONSIBLE** if an assignment is lost. To cover this eventuality, you are advised to keep copies of the assignment OR to ensure that you have the means of re-creating it. You **will be given 0 marks** for not submitting the ICW.

1. Procedure for Handling Work:

1. Follow any specific instructions given on the assignment specification.

2. Penalties for Late Hand In:

- If a student submits coursework late but within 24 hours of the specified deadline, the work will be marked but 10% of the overall marks obtained is deducted, to a minimum of the pass mark (40%).

- If students submit coursework later than 24 hours after the specified deadline, the work is **not** marked and will be given a mark of **zero** for the work in question.

3. Exceptional Factors Affecting your Performance:

- Students should submit **written evidence to the Registrar's Department** with a copy to the Module Leader of exceptional circumstances, which they consider having caused them to submit assessments late and for which they do not wish to subject for any penalty. The required documents must be handed over to the Registrar within four working days of the hand-in-date.
- Proper use of Python 3.x coding and language constructs is needed for a better program. You should follow good and proper programming techniques when completing this coursework.

*** Plagiarism ***

The strength of the university depends on academic and personal integrity. You must be honest and truthful. Plagiarism is the use of someone else's work, words, or ideas as if they were your own.

Plagiarism is a serious offense and will not be treated lightly.

Deliverables

The following should be submitted.

- A report including a description of the problem statement and the solution you have developed.
 - Make sure you have followed the good practices of report writing covered by [DOC311] Academic Skills for Higher Education module.
 - Use good word processing skills learned from [DOC314] Introduction to Information Technology module.
 - Screenshots of the program output in various states must be included.
 - All program codes **must be included** in your report as **text** (**NOT** image screen captures).
- Test cases used to test the programs and the results must be included in your submission.
- You need to provide the PDF version of your report and a ZIPPED folder which contains the full and working Python 3.x program
 - Save both (codes and PDF) to a single Zip folder named with your IIT student ID number.
 - For example, a zipped folder called **20219999** that carries PDF report and the final full Python program.
- All codes must be written in Python 3.x version

- The completed coursework must be submitted to the LMS via the given link. **DO NOT** email it to your lecturers.
- A viva session may be arranged individually to test your knowledge about the ICW you submitted or to clarify doubts about your ICW submission. This session may happen over Zoom with **audio and video** support.

Assignment Brief

You are to create a **console Python 3.x program** which will allow users to demonstrate a small program for a library.

Scenario

Currently all books available at ABC books store are managed using a manual process. Users should search for books from the racks which is a time taking process. With the increase of software development in every field developing book management software will be helpful task. It is needed to develop a system which is useful for maintain books in a procedure-oriented manner. Users should be able to easily search for books from index page and search for books to find their required book.

Design and develop fully transactional console-based application which has the following functionalities.

1. **Books:** Facility to create information related each book in the bookstore.
Input: Book No (Primary Key), Title, Subject Code, Author, Publisher, Price, Location, AND any other information you think it is useful to have.
2. **Books Chapters:** Facility to create books chapter information. For every book available on the site has to have a clear view to read each chapter using books chapters view.
Input: Book No, Chapter No, Title, starting page no, Ending page no
3. **Subjects:** Facility to create subjects. Books available on the site should sub divided into different category which will help users to easily find required category books.
Input: Subject Code, Name
4. **Books Query:** Direct search is needed to find books available on the site. Users must be able to search by book number, Book Title, Author **OR** Publisher.
5. **Add/Edit/Delete Books:** Facility should be provided add, edit, or delete information related to a book.

Your Task

You are to create a Python 3.x program which mimics the above requirements. Your program **must** run in the console. GUI base program will result **ZERO** marks. You can decide how the program menu and the

console interface will look like, based on the above requirements. You must clearly state your assumptions if you have any.

Tasks to Complete

1. You must use proper Python 3.x program constructs such as packages, modules, functions, variables, data structures, etc. to develop this program.
2. The user must be able to do requested tasks
3. Records must be stored by using a database
4. If a DB is used, username **must be** “root” with **no passwords** and the server **must be** “localhost”
5. You should also provide means to import/restore your current database for marking purposes. Failing to do this will result **lower marks or no marks** for that component.
6. If a text file is used, the extension must be of .TXT
7. You can use external packages which will help you to develop the program. *However*,
 - Such package uses must be **explained** in the report.
 1. Purpose of using it and which parts were implemented with it
 - Proper instructions **must** be given to do the installation of such packages.
 - Links where you install/download the packages **must** be provided in the report
 - Failing to do above tasks will result **lower marks or zero marks** for those components
 - You **CANNOT** use ready-made software packages specifically made for this! Such attempts will get ***zero marks*** for this whole ICW.
8. You are to develop a **console-based application with a suitable menu system** to complete this task.

End of Coursework
