

Application Development MCOMD1ADC

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Intorduction

This is a *sample* book written in **Markdown**. You can use anything that Pandoc's Markdown supports, e.g., a math equation $a^2 + b^2 = c^2$.

The **bookdown** package can be installed from CRAN or Github:

```
install.packages("bookdown")  
# or the development version  
# devtools::install_github("rstudio/bookdown")
```

Remember each Rmd file contains one and only one chapter, and a chapter is defined by the first-level heading #.

To compile this example to PDF, you need XeLaTeX. You are recommended to install TinyTeX (which includes XeLaTeX): <https://yihui.org/tinytex/>.

Chapter 1

Recap

1.1 Module Structure

1.2 Revision

1.3 Software Development

1.3.1 Software Development Lifecycle

1.3.2 Intellectual Property

1.3.3 Referencing

1.4 Version Control

1.5 Git and GitHub

Chapter 2

Memory and Intorduction to Classes

2.1 Heap and Stack

2.2 Classes

2.3 Reference types and Value types

2.4 More on Methods

Chapter 3

Arrays and Collections

3.1 Multi-Dimensional and Jagged Arrays

3.2 Lists

Chapter 4

Objects and Structures

4.1 Classes and Objects

4.2 Members

4.3 Structures

4.4 Methods and Properties

Chapter 5

Algorithms

5.1 Lists and Arrays

5.2 Big O annotation

5.3 Search Algorithms

5.4 Sort Algorithms

Chapter 6

GUI and more on Classes

6.1 Introduction to access modifiers (Public and Private)

6.2 Overriding

6.3 User Interface Design Guidelines

6.3.1 General

6.3.2 Windows Forms Specific

6.4 Forms

6.4.1 Add controls in a form

6.4.2 Designer

6.4.3 Controls Types

6.4.4 Programmatically controlling them

Chapter 7

Testing and Data Validation

7.1 Introduction to Test Driven Development

7.2 Introduction to Unit Testing

Chapter 8

File System

- 8.1 Access files, directories and drives
- 8.2 Create files and directories
- 8.3 Write a simple
- 8.4 Introduction to object relationship