

# BCS 2343

## Software Design Workshop

# Software Design Description: Introduction

by

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# Chapter Description

- **Expected Outcome of the Chapter**
  - Students are able to understand the purpose of Software Design Description (SDD) document
  - Student are able to understand contents in a SDD document
  - Students are able to understand Chapter 1 / Section 1 of SDD

# What is Software Design Description?

- A proper medium in recording or documenting design (and its implementation) of a software
- Software Design Description (SDD) is a document that consist of:
  - A front and back page.
  - Table of content
  - Chapter 1 / Section 1 – Introduction
  - Chapter 2 / Section 2 – Referenced Material
  - Chapter 3 / Section 3 – Design Description
  - Chapter 4 / Section 4 – Detailed Design Description
  - Chapter 5 / Section 5 – Data Dictionary
  - Chapter 6 / Section 6 – Abbreviation (Optional)
  - Chapter 7 / Section 7 – Appendix (Optional)

# What is Software Design Description?

- Purpose:
  - Explains the design and its implementation includes pattern / architecture used together with its classes and functions
  - To assist software developers (newbie or experienced) in developing the software
  - To assist software maintainers in maintaining the software

# Chapter 1 / Section 1: Introduction

- **System Identification**
  - ID of the system
  - Can be created based on criteria that is related to the system.
- **System Overview**
  - Shows the overview of the system
- **Document Overview**
  - Describes the overall chapter in SDD

# System Identification

- System Identification
  - ID of the system
  - Can be created based on criteria that is related to the system.
- [IMS-2017-01]
  - IMS: refers to the system name which is Integrated Management System
  - 2017: year in which the design of the system is created
  - 01: version of the system

# System Overview

- **System Overview**
  - Shows the overview of the system
- **Purpose:**
  - Understanding the overall module in a system
- **Example:**
  - System Use case
  - Context diagram / DFD

# Document Overview

- **Document Overview**
  - Describes the overview of each chapter in the document
- **Purpose:**
  - Understanding the purpose of each written chapter
- **Example:**
  - Chapter 1 Introduction describes .....
  - Chapter 2 Referenced Material describes .....
  - Chapter 3 Design Description describes .....
  - Chapter 4 Detailed Design Description describes .....
  - Chapter 5 Data Dictionary describes .....



# Conclusion

- Software Design Description (SDD) is a document that is used in recording or documenting design (and its implementation) of a software
- Helps software developers and maintainers in developing and maintaining the software
- Contains description of:
  - Design pattern / architecture used in the system
  - Classes and functions used
  - Data dictionary



# Author Information

**Dr. Al-Fahim Mubarak Ali is a Senior Lecturer in Faculty of Computer Systems & Software Engineering, Universiti Malaysia Pahang. His research specialization is in Software Clone (Code and Model Clone Detection and Analysis) Software and Information Security (Cloned Malware Detection and Analysis). He involved in teaching BCS 2343 Software Design Workshop for BCS (Software Engineering) FSKKP students since 2016.**



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