

## COMPUTER SCIENCE DEPARTMENT

**CS0053**

(PROGRAMMING TOOLS AND TECHNIQUES)

EXERCISE

8

GUI-Based Account Management Module

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| Name: Darla David | Professor: Sir Renjun Orain |
| Date Performed: 02/24/2022 | Date Submitted:  02/24/2022 |

1. **OBJECTIVES**

At the end of this exercise, students must be able to:

Cognitive

1. Understand the topics they have learned from lesson 8.

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Psychomotor:

1. Apply Design Patterns.
2. Construct Singleton design pattern.
3. Create a GUI-based Java program with design patterns.

Affective

1. Appreciate the concept behind this exercise.
2. **BACKGROUND INFORMATION**

In order to accomplish this exercise, the student must have a clear understanding of the following topics:

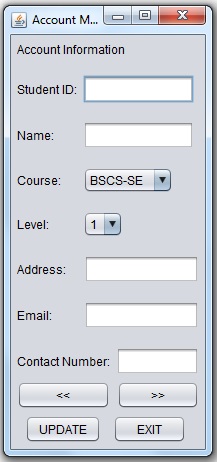
* Design Patterns
* Creational, Structural and Behavioral Design Patterns
* Import packages or libraries

1. **LABORATORY PROCEDURE**

1. Create a new program.

Program Name: AccountManagement.java

2. Design your layout as shown below



3. Requirements

- The program will validate the input.

- The program will display the notification message.

* The program will display notification for the result.
* The program can update account information.
* The program can browse thru the records.
* Apply coding conventions.
* The program must be free from any errors.

1. **QUESTION AND ANSWER**
2. What are the design patterns you used in the program? Write sample codes and explain.

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1. How you able to apply singleton in your program?

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1. **QUESTION AND ANSWER**

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| Department | Computer Science |
| Subject Code | CSSSPEC2 |
| Description | Programming Tools and Techniques |
| Term/Academic Year | 1st Term SY 2016-2017 |

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| --- | --- |
| Topic | Design Patterns |
| Lab Activity No | 8 |
| Lab Activity | **GUI-Based Account Management Module** |
| CLO | **1, 2** |

**Note: The following rubrics/metrics will be used to grade students’ output in the lab exercise 8.**

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| --- | --- | --- | --- | --- |
| Criteria | Exceptional | Acceptable | Amateur | Unsatisfactory |
| Specifications  (40%) | The program works and meets all of the specifications. (40) | The program works and produces the correct results and displays them correctly. It also meets most of the other specifications. (35-39) | The program produces correct results but does not display them correctly. (30-34) | The program is producing incorrect results. (20-29) |
| Design  (15 %) | The design is exceptionally attractive. Program is "user-friendly" with informative and consistent prompts and messages. (15) | The design is fairly attractive. Program is "user-friendly" with informative and consistent prompts and messages. (13-14) | The design is fairly attractive. Program is not "user-friendly" but still provide informative and consistent prompts and messages. (10-12) | The design is unattractive and not user-friendly (8-9) |
| Efficiency (20%) | The code is extremely efficient without sacrificing readability and understanding. (20) | The code is fairly efficient without sacrificing readability and understanding. (17-19) | The code is brute force and unnecessarily long. (14-16) | The code is huge and appears to be patched together. (10-13) |
| Readability  (10 %) | The code is exceptionally well organized and very easy to follow. (10) | The code is fairly easy to read. (8-9) | The code is readable only by someone who knows what it is supposed to be doing. (6-7) | The code is poorly organized and very difficult to read. (4-5) |
| Delivery  (15%) | The program was delivered on time. (15) | The program was delivered within a day of the due date. (13-14) | The code was within 2 days of the due date. (10-12) | The code was within a week of the due date. (8-9) |
| Total: 100% |  |  |  |  |