

 <b>UTHM</b> <small>Universiti Tun Hussein Onn Malaysia</small>  <b>FACULTY OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY</b>	Course Code	<b>BIT10703</b>	Item	<b>Project</b>
	Course	<b>DATA STRUCTURE AND ALGORITHM</b>		
Title	<b>Group Project Assignment</b>			
Domain of learning	1) Design solutions using elements of data structure and their functions (LOD3, PLO2, C4) 2) Build solutions of data structure and their functions using a programming language (LOD5, PLO3, P4) 3) Clarify implementation of selected data structure in problem solving activities (LOD8, PLO5, A3)			

### INSTRUCTION:

In this class, you need to develop a mini project based on the given title. You will work in groups of not more than **FIVE members**.

#### Project Title 1:

Medical Appointment System for Pusat Kesihatan Universiti UTHM

#### Project Title 2:

Patient Registration for Pusat Kesihatan Universiti UTHM

#### Project Title 3:

Club Member Registration System for IT Club FSKTM

#### Project Title 4:

Final Year Project Registration for FSKTM Students

#### Project Title 5:

Final Year Thesis Record for FSKTM Students

### PROGRAM: [10% marks]

You need to work in your group and identify what are the fields required. From that fields you need to perform the following operations using any data structures that you have learned:

- Insert a new record in the appropriate position
- Remove a record when ID is given

- Update a record based on ID given
- Find a record based on ID given
- List all records in alphabetical order

You should include **comments** in your program to explain the processes that takes place. Failing to do so will cause marks deduction.

### **REPORT: [10% marks]**

You also need to write a report consisting sections as follows:

- Introduction (General information of your project)
- Objectives (What do you develop/solve: - To develop a xxxxx system to .... – use your own words)
- Problem Backgrounds (What are the problems faced if your system is not to be developed and how you solve them)
- Justification methods used (Explain what your system does. **Elaborate the data structure elements that you employ and why you choose them.** Example: array is implemented to store record students)
- Results (Screenshot of your program output (3 different sample))
- Conclusion (Overall discussion on what you have done/learned)

All sections need to be **written in paragraphs.**

### **PRESENTATION: [5% marks]**

You will have to prepare a presentation, to last about 15-20 minutes. **Each group member is compulsory to take part.**

### **SUBMISSION:**

Each group need to complete all the tasks given and submit the outcome based on the following date:

<b>No</b>	<b>Task</b>	<b>Week</b>	<b>Date</b>	<b>Medium</b>
1	Report, Presentation Slides and Source Code Submission	14	<b>8 January 2024</b>	<b>Author</b>
2	Presentation	14	<b>10 January 2024</b>	<b>Face-to-face</b>

The submission is through AUTHOR under **GROUP ACTIVITIES**. Compile your programs, presentation slides and report in a **COMPRESSED ZIP FOLDER** named as **PROJECT TITLE\_GROUPNAME**. Late submissions will not be entertained.

Each group needs to **PRESENT** the program (source code) during the class in **week 14**.

**EVALUATION CRITERIA:**

- Functionality (The application can operate without errors)
- Applicability (Use the most elements in data structure)
- Achievability (The application developed meet the objectives)
- Reporting (The content of the report that includes Introduction, Objectives, Problem Backgrounds, Methodology, Results and Conclusion)
- Presentation (Presentation materials, editing quality, speaking ability, knowledge, presentation time)

**MARKING SCHEME: Refer Rubric**