KOLEJ PROFESIONAL MARA BERANANG
HIGHER NATIONAL DIPLOMA IN COMPUTING (SYSTEM DEVELOPMENT)
ASSESSMENT COVER SHEET

Student Name: Student ID No.: Unit Name: Data Structure and Algorithms Unit Code: 34 (21480D) Status: Core (QCF Level 5) Instructor: Pn. Asma Ibrahim Semester: Jan – May 2019 Mentor's Name:	Assessment No: 2 Assignment title: **Implementation of Data Structure and Algorithms (Phase 2)** Assessment Type: Assignment [X] / Practical [ ] / Test [ ] / End of unit test [ ] Date Out : 11/03/2019 Date In : 08/04/2019 Date Submit : Decision sampled by IV: Yes[ ] / No[ ]

Group		HND5A	HND5B	Total
No. of Students		14	18	32
Assessor		AAI	AAI	1
Signature				

Learning Outcomes	**Assessment Criteria**
P2. **Be able to implement data structures**	P2.1 Implement data structures in an executable programming language in the context of well-defined problems P2.2 Implement opportunities for error handling and reporting P2.3 Test results to enable comparison with expected results

Overall Grading Scheme for Assessment

Grading Criteria									
	P2.1	P2.2	P2.3	M1	M2	M3	D1	D2	D3
1st Attempt									
REDO									
FAIL	• Does not meet the requirements defined in the assessment criteria • Copy others' work • Cheating/Plagiarism								
Legend	• N/A (No Attempt) • X (Does Not Meet Criteria) • √ (Meets Criteria)								

Verification

Prepared by: Asma Ibrahim				Date:			
Verified by:							
Subject Leader		Internal Verifier		QC Unit		Unit Coordinator	
Sign.		Sign.		Sign.		Sign.	
Initial	AAI	Initial	NHN	Initial		Initial	
Date		Date		Date		Date	

ASSIGNMENT LATE SUBMISSION POLICY

All late submissions (submitted after given due date) will be penalized accordingly, based on the given category:

No	Late Submission Category	Penalty
1	Submitted within 1 week(from the 1st day up to the 7th day) after due date	The whole assignment will be marked up to **higher grade** attempt, but **not entitled for a Redo**
2	Submitted on the 2nd week(from the 8th day up to the 14th day) after due date	The assignment will **ONLY** be marked up to **Pass grade** attempt, and **not entitled for a Redo**
3	Submitted on the 3rd week(from the 15th day onwards) after due date	The whole assignment will **NOT BE MARKED, resulting to an F grade (fail).**

Scenario (Phase 2)

You may start the next task which is to convert the proposed design to a working system. Using the selected data structure, you need to implement the system by producing the following tasks:

Task:

1. Implement data structures in an executable programming language in the context of well-defined problems. (P2.1)

   System

   - Develop a working system as specified in Assessment1 (Phase 1) using selected data structure with the proposed
     - ❒ Classes
     - ❒ Methods
     - ❒ Data Structure
   - Manipulate data with these operations
     - ❒ Add
     - ❒ Delete
     - ❒ Search
     - ❒ Sorting
   - Provide the system with
     - ❒ recursive algorithm
   - Submit softcopy of the system and printed coding

2. Implement opportunities for error handling and reporting. (P2.2)
   - Provide an appropriate system feedback for error handling and provide appropriate reporting if user enter invalid input.
3. Test results to enable comparison with expected results. (P2.3)
   - Produce test documentation (valid and invalid input test) using appropriate format.
4. Justify the result of the testing in Task 3. (M1.1)
5. Produce user friendly system in terms of: (M2.7)
   - ❒ System help
   - ❒ Flow of the system
6. Provide user manual of the system. (M3.3)
7. Provide clear justification on the strategies of convincing the clients to fully use the developed system. (D1.3)
8. Plan the activities on the maintenance phase that will be conducted in a duration of 2 years contract. (D2.3)
9. Enhance the system with good usability and discuss the benefit of enhancement to the system. (D3.5)

Assessment Grading Scheme

GRADE	DESCRIPTORS	INDICATIVE CHARACTERISTICS	CONTEXTUALISED EVIDENCE	ATTEMPTS		REMARKS
				1ST	REDO	
P2	• Be able to implement data structures	P2.1 Implement data structures in an executable programming language in the context of well-defined problems	***System*** • Develop a working system as specified in Assessment1 (Phase 1) using selected data structure with the proposed ❒ Classes ❒ Methods ❒ Data Structure • Manipulate data with these operations ❒ Add ❒ Delete ❒ Search ❒ Sorting • Provide the system with ❒ recursive algorithm • Submit softcopy of the system and printed coding			
		P2.2 Implement opportunities for error handling and reporting	***System*** • Provide an appropriate system feedback for error handling and provide appropriate reporting if user enter invalid input			

GRADE	DESCRIPTORS	INDICATIVE CHARACTERISTICS	CONTEXTUALISED EVIDENCE	ATTEMPTS		REMARKS
				1ST	REDO	
		P2.3 Test results to enable comparison with expected results	***Documentation*** • Produce test documentation (valid and invalid input test) using appropriate format			
M1	• Identify and apply strategies to find appropriate solutions	M1.1 Effective judgments have been made	***Documentation*** • Justify the result of the testing in Task 3			
M2	• Select / design and apply appropriate methods / techniques	M2.7 Appropriate learning methods / techniques have been applied	***System*** • Produce user friendly system in terms of: ❒ System help ❒ Flow of the system			
M3	• Present and communicate appropriate findings	M3.3 A range of methods of presentation have been used and technical language has been accurately used	***Documentation*** • Provide user manual of the system			

GRADE	DESCRIPTORS	INDICATIVE CHARACTERISTICS	CONTEXTUALISED EVIDENCE	ATTEMPTS		REMARKS
				1ST	REDO	
D1	• Use critical reflection to evaluate own work and justify valid conclusions	D1.3 Self-criticism of approach has taken place	***Documentation*** • Provide clear justification on the strategies of convincing the clients to fully use the developed system.			
D2	• Take responsibility for managing and organizing activities	D2.3 Activities have been managed	***Documentation*** • Plan the activities on the maintenance phase that will be conducted in a duration of 2 years contract.			
D3	• Demonstrate convergent/ lateral/ creative thinking	D3.5 Innovation and creative thought have been applied	***System*** • Enhance the system with good usability ***Documentation*** • Discuss the benefit of enhancement to the system			