

#### **PROJECT DATABASE**

Title : Develop Quiz System for Student and Lecturer Objectives : At the end of the session, students are able to:

i. Design a normalize databaseii. Develop the databaseiii. Writing SQL statements

iv. Connecting between the database and user interfaces

Duration : 10 weeks

Programming Language: Any Object-Oriented Programming Language

Below are the basic requirements for the system, you may extend the modules but not decrease it.

#### 1. Login Page

a. Error message for wrong username or password. Below are some examples.

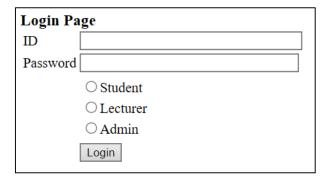


Fig 1. Login page with ID and password.

ID 01822
Password

Student

Lecturer

Admin

Login

\* Choose either Student Login or Lecturer Login or Admin Login. Try again!

Fig 2. Error message prompt out if without choose either 'Student' or 'Lecturer'.



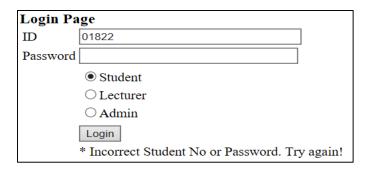


Fig 3. Error message for either username or password.

b. Initially, when admin registered the users (student/admin/lecturer), the default password is the ID. For first login, when user entered the ID and password, the system will force the user to change the new password.

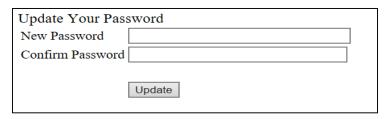


Fig 4. Enter the new password.

#### 2. Module for Admin

- a. Register Admin (Add/Update/Delete)
  - If the admins have manipulated information (eg. Table Student, Lecturer etc), the admin' profile cannot be deleted. You need to check it before deleting it. For example, admin wish to delete Admin ID "1326", error message as shown in Figure 6.
  - ii. Duplicate data is not allowed.

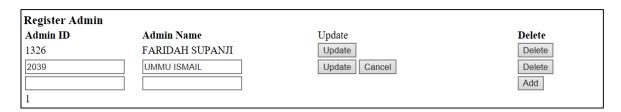


Fig 5. Allow admin to add/update/delete new admins.

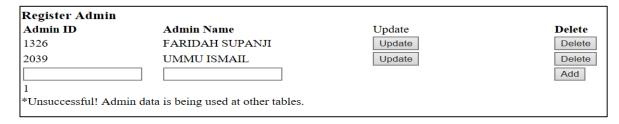


Fig 6. Data is locked, because it being used at other table.

- b. Register Students (Add/Update/Delete)
  - i. Condition: If the students have register under certain subject, the students' profile cannot be deleted. You need to check it before deleting it.
  - ii. Duplicate data is not allowed.

Register Student						
Student ID	Student Name	Student Email	Modified By	Modified On	Update	Delete
AI160085	ABDUL RAHMAN BIN AMZAL	AI160085@siswa.uthm.edu.my			Update	Delete
AI160168	AHMAD KAMIL BIN KAMARUDDIN MALIK	AI160168@siswa.uthm.edu.my	FARIDAH SUPANJI BINTI BLA BLA BLA		Update	Delete
AI160191	CHAI CHEEN SHUN	AI160191@siswa.uthm.edu.my	FARIDAH SUPANJI BINTI BLA BLA BLA		Update	Delete
AI160190	CHAN WEI LIANG	AI160190@siswa.uthm.edu.my	FARIDAH SUPANJI BINTI BLA BLA BLA		Update	Delete
AI160030	FARAH HANANI BINTI ZOLKARNAIN	AI160030@siswa.uthm.edu.my	FARIDAH SUPANJI BINTI BLA BLA BLA		Update	Delete
AI160257	AATHI	AI160257@siswa.uthm.edu.my	FARIDAH SUPANJI BINTI BLA BLA BLA		Update	Delete
AI180002	ZARIF ISHAK	AI180002@siswa.uthm.edu.my	NORWAN SAMSUDIN BIN ABDULLAH	19/2/2021 2:21:11 PM	Update	Delete
Al190161 1	ARMISHA					Add

Fig 7. Allow admin to add/update/delete new students.

- c. Register Lecturer (Add/Update/Delete)
  - Condition: If the lecturers have been assigned to certain subject, the lecturers' profile cannot be deleted. You need to check it before deleting it.
  - ii. Duplicate data is not allowed.

Register Lecture	er			
Lecturer ID	Lecturer Name	Modified By	Modified On	Update Delete
1822	CHUAH CHAI WEN	FARIDAH SUPANJI BINTI BLA BLA BLA	2/2/2021 3:46:54 PM	Update Delete
2266	SHAREEN KASIM	FARIDAH SUPANJI BINTI BLA BLA BLA	2/2/2021 3:47:33 PM	Update Delete
783	NURHANIFAH MURLI	FARIDAH SUPANJI BINTI BLA BLA BLA	2/2/2021 3:48:11 PM	Update Delete
2222	SOFIA NAJWA	FARIDAH SUPANJI BINTI BLA BLA BLA	17/2/2021 10:42:47 AM	Update Delete
4444	MUNIRAH YUSOF	NORWAN SAMSUDIN BIN ABDULLAH	19/2/2021 2:20:13 PM	Update Delete
1234	NURUL HIDAYAH			Add
1				

Fig 8. Allow admin to add/update/delete new lecturers.

- d. Register Subject (Add/Update/Delete)
  - i. Condition: If the subjects have owner, the subjects cannot be deleted. You need to check it before deleting it.
  - ii. Duplicate data is not allowed.

Register Subject				
Subject Code	Subject Name	Modified By	Modified On	Update Delete
BIC20904	OBJECT ORIENTED PROGRAMMING	FARIDAH SUPANJI BINTI BLA BLA BLA	2/2/2021 3:49:11 PM	Update Delete
BIS20404	CRYPTOGRAPHY	FARIDAH SUPANJI BINTI BLA BLA BLA	2/2/2021 3:49:32 PM	Update Delete
BIC10303	ALGEBRA	FARIDAH SUPANJI BINTI BLA BLA BLA	2/2/2021 3:50:11 PM	Update Delete
BIC 11111	MATH	FARIDAH SUPANJI BINTI BLA BLA BLA	17/2/2021 10:43:06 AM	Update Delete
BIT 20803	DATABASE	NORWAN SAMSUDIN BIN ABDULLAH	19/2/2021 2:20:33 PM	Update Delete
BIC 21404	DATABASE			Add
1				

Fig 9. Allow admin/lecturer to add/update/delete new subjects.

- e. Register Workload Lecturer (Add/Update/Delete)
  - i. Condition: If the lecturer has created quiz for the subject, the subject cannot be deleted. You need to check it before deleting it.
  - ii. Duplicate data is not allowed.
  - iii. The drop down lists are dynamic, it retrieved from database.

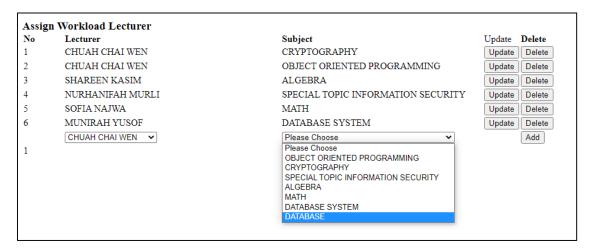


Fig 10. Allow admin to assign workloads for lecturers.

#### **BIC 21404 DATABASE SYSTEM**

#### 3. Module for Lecturer

- a. Lecturer can view the quiz result and create quiz
  - i. There are two types of quiz: True/False and Multiple Choices/Objectives.

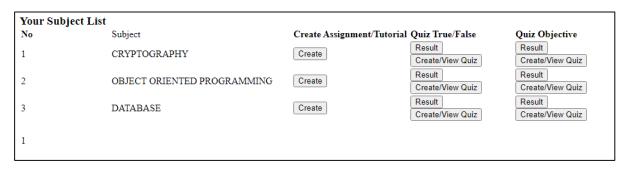


Fig 11. After login. The lecturer can view their subject list.

ii. Quiz: True/False. Lecturer can create any number of questions. No limited.

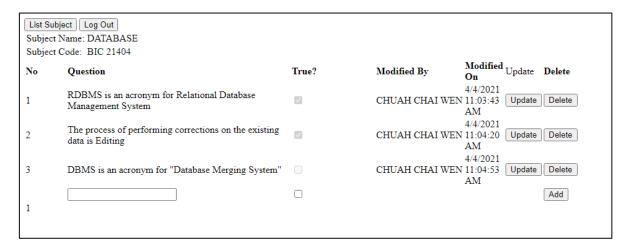


Fig 12. Lecturer can add/update/delete the quiz (True/False).

#### **BIC 21404 DATABASE SYSTEM**

List Subje	ect Log Out		
Subject N	Name: DATABASE		
Subject C	Code: BIC 21404		
No	Student Name	Student ID	Result Quiz True/False
1	ARMISHA	AI190161	2
2	ABDUL RAHMAN BIN AMZAL	AI160085	6
3	AHMAD KAMIL BIN KAMARUDDIN MALIK	AI160168	
1 Number s	tudents pass: 1. Number students fail: 1		

Fig 13. Lecturer can view the result of students (Quiz True/False). The result will show the number of passes and the number of fails. If there are 3 questions, the full mark is 6 marks, the passing mark is 3. If there are 20 questions, the full mark is 40, the passing mark is 20. Empty mean the student not yet take the quiz.

iii. Quiz: Multiple Choices. Lecturer can create any number of questions. No limited.

Sı	ist Subject Log Out ubject Name: DATABASE ubject Code: BIC 21404								
N	o Question	Answer A	Answer B	Answer C	Answer D	Correct Answer	Modified Mo By On	dified Update	Delete
1	A report is printed information based on	Data	Form	Input	Query	D	CHUAH 4/4 CHAI 11: WEN AN	/2021 06:39 Update	Delete
2	The set of processed data is called	Database	Information	Datum	Data	В	CHUAH 4/4 CHAI 11: WEN AM	07:06 Update	Delete
3	A row in a table represents	Record	Field	File	Column	A	CHUAH 4/4 CHAI 11: WEN AN	09:50 Update	Delete
١.							]		Add

Fig 14. Lecturer can add/update/delete the quiz (Multiple Choices).

	Name: DATABASE Code: BIC 21404		
No	Student Name	Student ID	Result Quiz Objective
1	ARMISHA	AI190161	6
2	ABDUL RAHMAN BIN AMZAL	AI160085	6
3	AHMAD KAMIL BIN KAMARUDDIN MALIK	AI160168	
1			

Fig 15. Lecturer can view the result of students (Quiz Multiple Choices). The result will show the number of passes and the number of fails. If there are 10 questions, the full mark is 20 marks, the passing mark is 10. If there are 20 questions, the full mark is 40, the passing mark is 20. Empty mean the student not yet take the quiz.

iv. Create/View Assignment/Tutorial/Lab: Lecturer can create and view assignment/tutorial/lab.

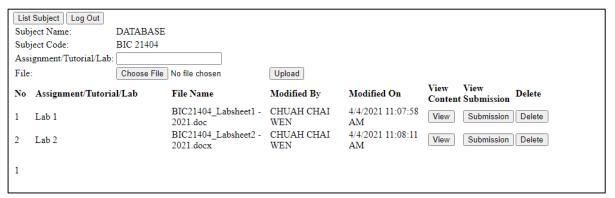


Fig 16. Lecturer can create assignment or tutorial or lab. Browse the document and upload to the database.

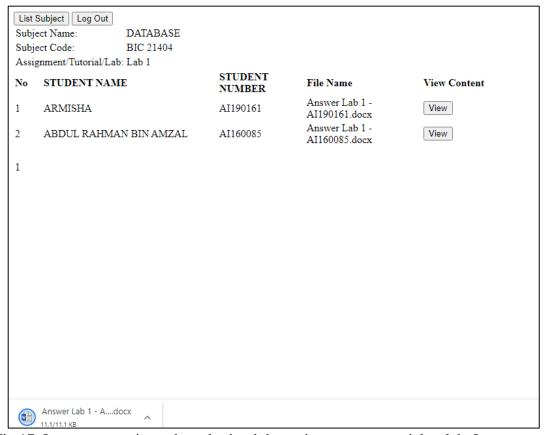


Fig 17. Lecturer can view who submitted the assignment or tutorial or lab. Lecturer can download the submitted file.

#### **BIC 21404 DATABASE SYSTEM**

#### 4. Module Student

a. Student can register their subject(s).

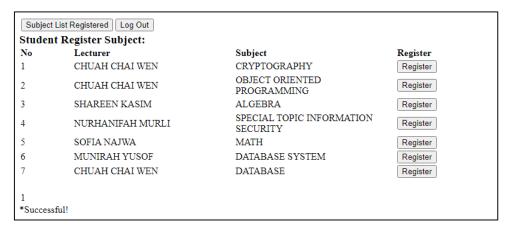


Fig 18. Student may choose the subject.

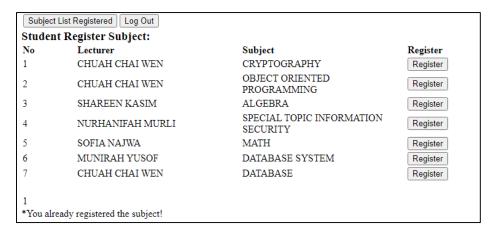


Fig 19. Student is not allowed to register the same subject twice. Error message "You already registered the subject" will prompt out.

b. Student may view the subject that he/she registered.

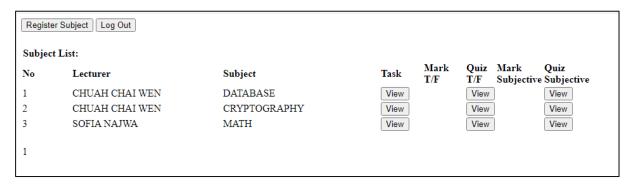


Fig 20. List of subjects that the student registered.

c. Student may take the quiz (True/False) if he/she never take it or "ZERO" mark.

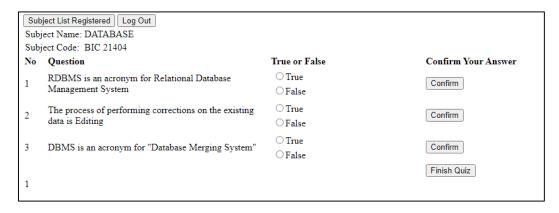


Fig 21. Student takes the quiz for the first time.

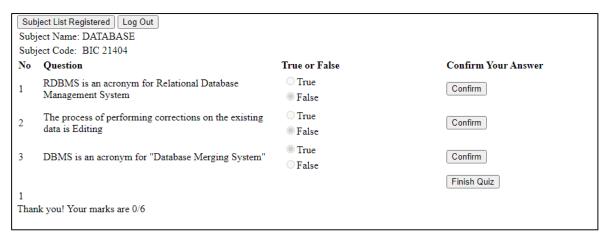


Fig 22. Student got zero marks. He/she is allowed to retake the quiz.

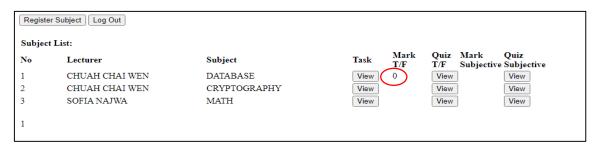


Fig 23. The subject list showed the result of quiz. He/she is allowed to retake the quiz.



Sub	ject List Registered Log Out		
Sub	ect Name: DATABASE		
Subj	ect Code: BIC 21404		
No	Question	True or False	Confirm Your Answer
	RDBMS is an acronym for Relational Database	True	Confirm
1	Management System	○ False	Commin
2	The process of performing corrections on the existing	True	Confirm
2	data is Editing	○ False	Commi
3	DBMS is an acronym for "Database Merging System"	● True	Confirm
3	DBIVIS is an actoriyin for Database Merging System	○ False	Commi
			Finish Quiz
1			
Than	ık you! Your marks are 2/6		

Fig 24. Student retakes the quiz. He/she got 2/6. Noted that each question mark is 2. For each correct answer is 2 marks. For each wrong answer is -2 marks. For this case, no 1 and no 2 are correct, total 4 marks. But, no 3 incorrect, -2 marks. Therefore, final marks are 2 marks.

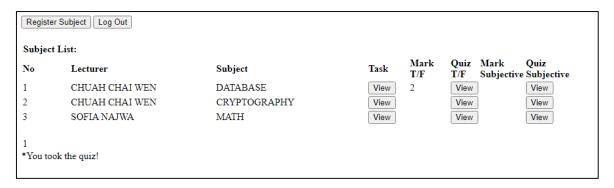


Fig 25. The subject list showed the result of quiz. He/she is not allowed to retake the quiz, with the error message "You took the quiz!"

d. Student may take the quiz (Multiple Choices), if he/she never take it or "ZERO" mark.

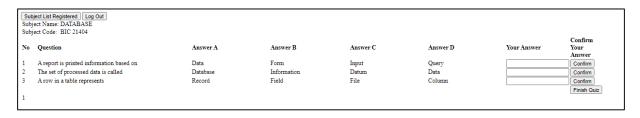


Fig 26. Student takes the quiz for the first time.

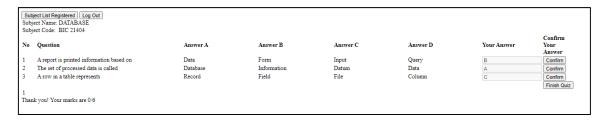




Fig 27. Student got zero marks. He/she is allowed to retake the quiz.

Registe	er Subject Cog Out				
Subject	t List:				
No	Lecturer	Subject	Task	Mark T/F	Quiz Mark Quiz T/F Subjective Subjective
1	CHUAH CHAI WEN	DATABASE	View	2	View 0 View
2	CHUAH CHAI WEN	CRYPTOGRAPHY	View		View
3	SOFIA NAJWA	MATH	View		View
1					

Fig 28. The subject list showed the result of quiz. He/she is allowed to retake the quiz.

Subje	ect List Registered   Log Out   ect Name: DATABASE ect Code: BIC 21404						
No	Question	Answer A	Answer B	Answer C	Answer D	Your Answer	Confirm Your Answer
1	A report is printed information based on	Data	Form	Input	Query	D	Confirm
2	The set of processed data is called	Database	Information	Datum	Data	В	Confirm
3	A row in a table represents	Record	Field	File	Column	A	Confirm
							Finish Quiz
1							
han	k you! Your marks are 6/6						

Fig 29. Student retakes the quiz. He/she got 6/6. Noted that each question mark is 2.

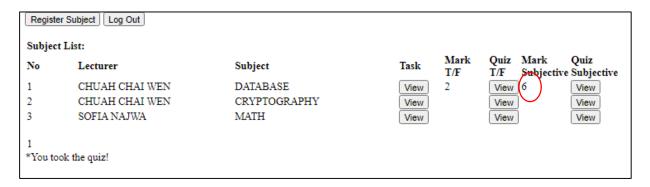


Fig 30. The subject list showed the result of quiz. He/she is not allowed to retake the quiz, with the error message "You took the quiz!"

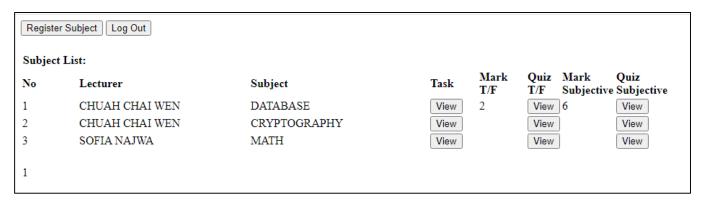


Fig 31. Student can view the given assignment/tutorial/lab



e. Student may view and submit the assignment/tutorial/lab.

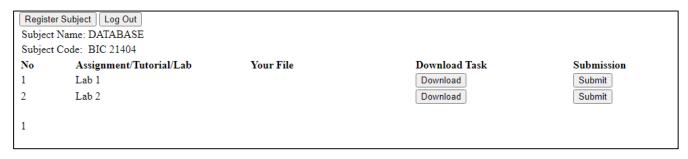


Fig 32. Student can download and submit the given assignment/tutorial/lab

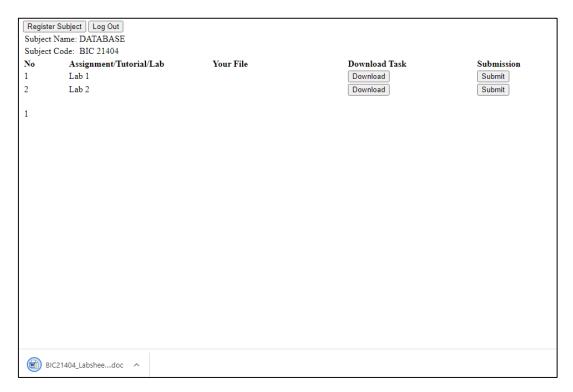


Fig 33. Student can download the given assignment/tutorial/lab



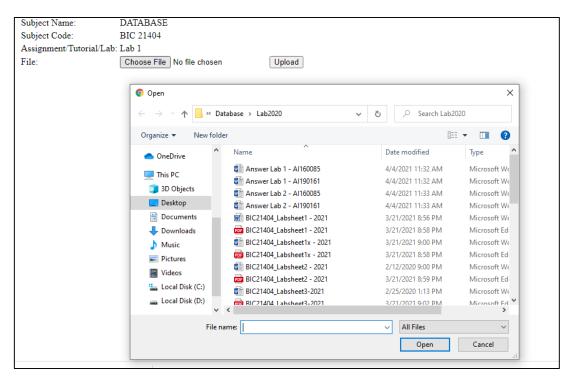


Fig 34. Student can upload the answer for the given assignment/tutorial/lab

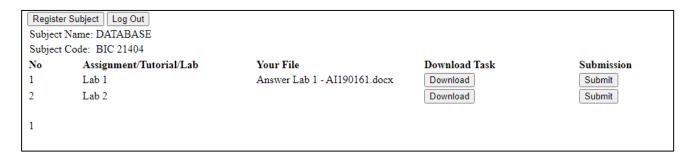


Fig 35. Page show the submission for the given assignment/tutorial/lab



### **Project System Rubrics**

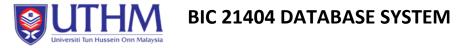
PROGRAMME : BACHELOR OF COMPUTER SCIENCE SESSION : II 2020/2021

COURSE : DATABASE SYSTEM COURSE : BIC21404

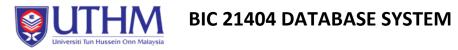
STUDENT :

ACTIVITY : SYSTEM

Assessment	Criteria	Subcriteria	1	2	3	4	5	Check	Score
		Error message for wrong username or password.						0.05	
	Login Page	Error message if without choosing either 'Student' or 'Lecturer' or 'Admin'						0.05	
		Prompt out "Update password" for the first time user.						0.05	
		Register admin (Add/update/delete). Check the deletion.						0.05	
		Register lecturers (Add/update/delete). Include modified by who and when. Auto assign password. Check the deletion.						0.1	
System	Module for Admin	Register students (Add/update/delete). Include modified by who and when. Auto assign password. Auto assign email. Check the deletion.						0.1	
		Register subjects (Add/update/delete). Include modified by who and when. Check the deletion.						0.05	
		Assign workload to lecturers (Add/update/delete). Not allow duplicate data.						0.05	
		Dynamic Drop down lists: Subject						0.1	
		Dynamic Drop down lists: Lecturer						0.1	
		Only show the list of the subject teach by lecturer.						0.05	
	Module for Lecturer	Allow create the quiz (True/False) add/update/delete.						0.1	



	Allow create the quiz (Multiple choices)		
	add/update/delete.	0.1	
	View result quiz (True/False). Include the number pass and fail.	0.1	
	View result quiz (Multiple choices). Include the number pass and fail.	0.1	
	Lecturer can upload files of assignment/tutorial/lab. *The content files must be saved into the database. Not only the path file.	0.5	
	Lecturer can view students submission and download the submission. Once, students submit the assignment/tutorial/lab, lecturer cannot delete the assignment/tutorial/lab.	0.5	
	Show the list of subjects. Students are not allow to register the same subject twice.	0.1	
	Student can view the list of their registered subjects and the marks of quiz.	0.1	
	Student can answer quiz (true/false). Correct calculate the marks.	0.1	
Module for student	Student can answer quiz (Multiple Choice). Correct calculate the marks.	0.1	
	Student is allowed to retake the quiz if he/she got zero mark. If students score the quiz, he/she cannot retake the quiz.	0.05	
	Student is allowed to view, download and upload assignment/tutorial/lab. *The content files must be saved into the database. Not only the path file.	0.1	
Present	ation	3	
	<del></del>	 Total	



Evaluation	Marks	Actual in TCIS
Cognitive	15	5
Psychomotor	10	10
Affective	15	5