

## SafeAssign Originality Report

SOFTWARE DESIGN • Creating a Class diagram and design pattern selection (30%)

**WONG JOE SHEN -**

Submission UUID: ced46291-e402-0287-7ac0-9107c48c8ea1

Total Score:  High risk 63 %

Total Number of Reports

2

Highest Match

100 %

Assignment Cover Page.docx

Average Match

63 %

Submitted on

11/18/22

08:22 PM GMT+8

Average Word Count

583

Highest: Task 3.docx


 Attachment 1 100 %Word Count: 373  
Assignment Cover Page.docx

Institutional database (2)


100 %

 Student paper My paper


Top sources (2)

 Student paper My paper

Excluded sources (0)


 INTI International College Penang School of Engineering and Technology 3+0 Bachelor of Science (Hons) in Computer Science, in collaboration with Coventry University, UK 3+0 Bachelor of Science (Hons) in Computing, in collaboration with Coventry University, UK Coursework cover sheet

Section A - To be completed by the student






Full Name:  Wong Joe Shen CU Student ID Number: 13459640

Semester: 1


Session: August 2022

Lecturer:  Nadhrah Abdul Hadi (nadhrah.abdulahadi@newinti.edu.my)


Module Code and Title: 4067CEM Software Design

Assignment No. / Title:  Continuous Assessment % of Module Mark: 50 Hand out Date: 6th September 2022 Due Date: Task 1:  30 September 2022, by 11.59pm. Task 2:  18 November 2022, by 11.59pmTask 3:  4 November 2022, by 11.59pm. Task 4:  4 November 2022, by 11.59pm. Task 5:  4 November 2022, by 11.59pm.Penalties:  No late work will be accepted. If you are unable to submit coursework on time due

to extenuating circumstances, you may be eligible for an extension. Please consult the lecturer.

Declaration:  I/we the undersigned confirm that I/we have read and agree to abide by the University regulations on plagiarism and cheating and Faculty coursework policies and procedures. I/we confirm that this piece of work is my/our own. I/we consent to appropriate storage of our work for plagiarism checking.

Signature(s):

 Section B - To be completed by the module leaderIntended learning outcomes assessed by this work: 1.  Understand and apply appropriate concepts, tools and techniques to each stage of the software development2.  Understand and apply design patterns to software components in developing new software

3. ② Demonstrate an understanding of project planning and working to agreed deadlines, along with professional, interpersonal skills and effective communication required for software production

5. ① Demonstrate an awareness of, and ability to apply, social, professional, legal and ethical

standards as documented in relevant laws and professional codes of conduct such as that of the Malaysian National Computer Confederation.

② Marking scheme Max Mark

1. ② User Story Mapping 20

2. ② Setting up a GitHub

Repository 10

3. ② Creating a Class diagram and

design pattern selection 30

4. ② Creating a Prototype User

Interface and Usability Testing 20

5. ② Discuss the ethical issue

related to the software 20

Total 100

## Source Matches (25)

① My paper		100%
Student paper	Original source	
INTI International College Penang School of Engineering and Technology 3+0 Bachelor of Science (Hons) in Computer Science, in collaboration with Coventry University, UK 3+0 Bachelor of Science (Hons) in Computing, in collaboration with Coventry University, UK	INTI International College Penang School of Engineering and Technology 3+0 Bachelor of Science (Hons) in Computer Science, in collaboration with Coventry University, UK 3+0 Bachelor of Science (Hons) in Computing, in collaboration with Coventry University, UK	

② Student paper		100%
Student paper	Original source	
Coursework cover sheet Section A - To be completed by the student	Coursework cover sheet Section A - To be completed by the student	

① My paper		100%
Student paper	Original source	
Wong Joe Shen	Wong Joe Shen	

② Student paper		100%
Student paper	Original source	
CU Student ID Number:	CU Student ID Number	

② Student paper		100%
Student paper	Original source	
Nadhras Abdul Hadi (nadhras.abdulhadi@newinti.edu.my) Module Code and Title: 4067CEM Software Design	Nadhras Abdul Hadi (nadhras.abdulhadi@newinti.edu.my) Module Code and Title 4067CEM Software Design	

② Student paper		100%
Student paper	Original source	
Continuous Assessment % of Module Mark:	Continuous Assessment % of Module Mark	

<div> <div>2</div> <div>Student paper</div> </div> <div>100%</div>	
<div>Student paper</div> <div>Hand out Date: 6th September 2022 Due Date:</div>	<div>Original source</div> <div>Hand out Date 6th September 2022 Due Date</div>
<div> <div>2</div> <div>Student paper</div> </div> <div>100%</div>	
<div>Student paper</div> <div>30 September 2022, by 11.59pm.</div>	<div>Original source</div> <div>30 September 2022, by 11.59pm</div>
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<div>Student paper</div> <div>No late work will be accepted. If you are unable to submit coursework on time due to extenuating circumstances, you may be eligible for an extension. Please consult the lecturer.</div>	<div>Original source</div> <div>No late work will be accepted If you are unable to submit coursework on time due to extenuating circumstances, you may be eligible for an extension Please consult the lecturer</div>
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<div>Student paper</div> <div>I/we the undersigned confirm that I/we have read and agree to abide by the University regulations on plagiarism and cheating and Faculty coursework policies and procedures. I/we confirm that this piece of work is my/our own. I/we consent to appropriate storage of our work for plagiarism checking.</div>	<div>Original source</div> <div>I/we the undersigned confirm that I/we have read and agree to abide by the University regulations on plagiarism and cheating and Faculty coursework policies and procedures I/we confirm that this piece of work is my/our own I/we consent to appropriate storage of our work for plagiarism checking</div>
<div> <div>2</div> <div>Student paper</div> </div> <div>100%</div>	
<div>Student paper</div> <div>Section B - To be completed by the module leader Intended learning outcomes assessed by this work:</div>	<div>Original source</div> <div>Section B - To be completed by the module leader Intended learning outcomes assessed by this work</div>
<div> <div>2</div> <div>Student paper</div> </div> <div>100%</div>	
<div>Student paper</div> <div>Understand and apply appropriate concepts, tools and techniques to each stage of the software development</div>	<div>Original source</div> <div>Understand and apply appropriate concepts, tools and techniques to each stage of the software development</div>

<div> <div>2</div> <div>Student paper</div> </div> <div>100%</div>	
<div>Student paper</div> <div>Understand and apply design patterns to software components in developing new software</div>	<div>Original source</div> <div>Understand and apply design patterns to software components in developing new software</div>
<div> <div>2</div> <div>Student paper</div> </div> <div>100%</div>	
<div>Student paper</div> <div>Demonstrate an understanding of project planning and working to agreed deadlines, along with professional, interpersonal skills and effective communication required for software production</div>	<div>Original source</div> <div>Demonstrate an understanding of project planning and working to agreed deadlines, along with professional, interpersonal skills and effective communication required for software production</div>
<div> <div>1</div> <div>My paper</div> </div> <div>100%</div>	
<div>Student paper</div> <div>Demonstrate an awareness of, and ability to apply, social, professional, legal and ethical standards as documented in relevant laws and professional codes of conduct such as that of the Malaysian National Computer Confederation.</div>	<div>Original source</div> <div>Demonstrate an awareness of, and ability to apply, social, professional, legal and ethical standards as documented in relevant laws and professional codes of conduct such as that of the Malaysian National Computer Confederation</div>
<div> <div>2</div> <div>Student paper</div> </div> <div>100%</div>	
<div>Student paper</div> <div>Marking scheme Max Mark</div>	<div>Original source</div> <div>Marking scheme Max Mark</div>
<div> <div>2</div> <div>Student paper</div> </div> <div>100%</div>	
<div>Student paper</div> <div>User Story Mapping 20</div>	<div>Original source</div> <div>User Story Mapping 20</div>
<div> <div>2</div> <div>Student paper</div> </div> <div>100%</div>	
<div>Student paper</div> <div>Setting up a GitHub</div>	<div>Original source</div> <div>Setting up a GitHub</div>
<div> <div>2</div> <div>Student paper</div> </div> <div>100%</div>	
<div>Student paper</div> <div>Creating a Class diagram and design pattern selection 30</div>	<div>Original source</div> <div>Creating a Class diagram and design pattern selection 30</div>
<div> <div>2</div> <div>Student paper</div> </div> <div>100%</div>	
<div>Student paper</div> <div>Creating a Prototype User Interface and Usability Testing 20</div>	<div>Original source</div> <div>Creating a Prototype User Interface and Usability Testing 20</div>
<div> <div>2</div> <div>Student paper</div> </div> <div>100%</div>	
<div>Student paper</div> <div>Discuss the ethical issue related to the software 20</div>	<div>Original source</div> <div>Discuss the ethical issue related to the software 20</div>

Attachment 2 25 %

Institutional database (2)

24 %

② Student paper

① Student paper

Internet (1)

1 %

③ wikipedia

Top sources (3)

② Student paper

① Student paper

③ wikipedia

Excluded sources (0)

① Task 3 – Creating a Class diagram and design pattern selection (30 marks) 1. Create a simple Class diagram which should consists of the Classes that might be used to represent the system and the association between them. ② You don't have to declare the attributes and operations for this activity. You do have to explain the class responsibility of each class declared. Class Responsibilities: Login: · Ensure the users has registered before gaining access to the app. · To authenticate the user's username and password and check if it matches with the one registered in the database.

Register: · To collect information regarding the users and enable the users to create an account. · To build a database for all the users of the college buddy system.

③ 2-Step Verification: · Prevents hacker from gaining access to the user's account. · To prevent user information being stolen or changed without the user's consent. Account Security: · To protect every user's account and personal information. · Allow users to configure the strength of the security for the user's account.

Profile Setup: · To let the user's setup their account properly for socializing. · Allow the users to edit whenever the user felt that their account info needs to be updated.

Link Accounts: · To share the user's existing account from another online platform as a backup method to contact the user. · To improve the user's online presence in other platforms.

Homepage: · The main hub of the college buddy system. · To direct the users through all of the system's features from the homepage itself.

Feed: · To share activity from the users on the app. · To provide users with some content to enjoy on the app.

Chat: · Enable users to communicate with each other through text messages or voice calls and video calls. · Grant users to create group chats which opens up for a larger scale of communication since the users are able to reach out to tons of users at once.

Upload: · To allow users to share their thoughts and upload content of their own such as photos and videos. · To contribute content for the feed page.

Search: · Allow the users to find a certain user or a certain post on the app. · To provide the users a great experience and assist them by providing the data the users requested.

Notifications: · To alert the users of their buddies' activities on the app. · To alert the users of important notices or security breaches.

Settings: · To grant the users to configure the features provided to them on the app to their liking. · To allow users to change some functionalities and the app's method of responding towards users.

Contact Support: · Provide the users a method to contact official support agents when they are having trouble or require technical assistance. · To enlighten the users if the users are having doubts on how to use a specific feature or if the users are looking for something very specific in the app.

2. ② Consider the problem and select a suitable design pattern that can be implemented on the problem. Give justification on why the design pattern was chosen. Draw the UML diagram representing your class diagram as a design pattern UML. Include all the abstract class/interface, concrete class and inheritance (if any) used to represent the problem.

One of the problems encountered was the notifications feature where the app will alert the user of any new activities from the user's buddies without asking if the user want these notifications. Over the course of time, these notifications have become a nuance and forced a lot of users to turn off after these notifications have irritated them enough. In turn, a design pattern was needed to solve this issue and that is where the "Observer" design pattern comes into play. The "Observer" is a behavioural design pattern that allows the developers to define a feature which allows it to notify users of any activities that are occurring to the subject that the users are observing. In this case, the subject is the user's buddies where the feature is the notification system. Once the user made a new buddy on the app, there will be an algorithm analysing what type of content made by the user's buddy is most interacted by the user and there'll be a pop-up windows that asks the user if they want to receive notifications from this certain buddy. If they accept it, the app will notify the user of the activity regarding the user's selection and update the user's feed with that said activity0; if they decline, they will not receive any notifications regarding the activity made by the buddy and the user's feed will be sorted through the default settings which is the date of upload. The user can choose to reactivate the notifications from the buddy's profile.

## Source Matches (4)

①	<i>Student paper</i>	91%
Student paper	Task 3 – Creating a Class diagram and design pattern selection (30 marks) 1. Create a simple Class diagram which should consists of the Classes that might be used to represent the system and the association between them.	Original source Task 3 – Creating a Class diagram and design pattern selection (30 marks) Create a simple Class diagram which should consists of the Classes that might be used to represent
②	<i>Student paper</i>	100%
Student paper	You don't have to declare the attributes and operations for this activity. You do have to explain the class responsibility of each class declared.	Original source You don't have to declare the attributes and operations for this activity You do have to explain the class responsibility of each class declared
③	<i>wikipedia</i>	75%
Student paper	2-Step Verification:	Original source "Google 2-Step Verification"
②	<i>Student paper</i>	100%
Student paper	Consider the problem and select a suitable design pattern that can be implemented on the problem. Give justification on why the design pattern was chosen. Draw the UML diagram representing your class diagram as a design pattern UML. Include all the abstract class/interface, concrete class and inheritance (if any) used to represent the problem.	Original source Consider the problem and select a suitable design pattern that can be implemented on the problem Give justification on why the design pattern was chosen Draw the UML diagram representing your class diagram as a design pattern UML Include all the abstract class/interface, concrete class and inheritance (if any) used to represent the problem