**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**

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| Full Name: MAH CHUN-HOE | |
| CU Student ID Number: P22014268 | |
| Semester: 1 | |
| Session:  **August 2022** | |
| Lecturer:  **Nadhrah Abdul Hadi (nadhrah.abdulhadi@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 11.59pm**  **Task 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 leader**

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| Intended learning outcomes assessed by this work:  1. Understand and apply appropriate concepts, tools and techniques to each stage of the software development  2. Understand and apply design patterns to software components in developing new software  3. Demonstrate an understanding of project planning and working to agreed deadlines, along with professional, interpersonal skills and effective communication required for software production  5. 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. | | |
| Marking scheme | Max | Mark |
| 1. User Story Mapping 2. Setting up a GitHub Repository 3. Creating a Class diagram and design pattern selection 4. Creating a Prototype User Interface and Usability Testing 5. Discuss the ethical issue related to the software | 20  10  30  20  20 |  |
| Total | 100 |  |

Task 5 – Ethical Issues related to software

# Cyber Laws of Malaysia

# With the current technological advances and the global pandemic happening around the world, more and more tasks are done online, with the help of the Internet. This means everywhere we go or whatever we do on a daily basis are mostly related to the Internet. For example, when students meet up with problems in a question, most of them will Google the answer as it is fast, the social media applications that we use everyday be it to get the latest news updates or to have a good laugh on some short videos, are all made possible by the Internet. Just like other countries, Malaysia also has a number of laws to tackle the cybersecurity. This is to prevent online scams, identity theft, cyberbullying or many other problems caused by users who misuse the Internet. The Student Buddy System has implemented several laws to protect the users and also the system in case of any legal problem happens.

# Communications and Multimedia Act 1998

# The first act used in this system is the Communications and Multimedia Act also known as the CMA. It is the main cyber law in Malaysia. Its purpose is to defend a free and open Internet for everyone. The Section 213 of the CMA makes it clear that a Content Code should be drafted in a way as to provide model procedures for dealing with offensive or vulgar content. The Content Code contains the set of procedures to deal with these kinds of content. The matters that may be included are the methods of classifying content, the procedures for handling complaints or reports from the public to the Commission, the restrictions of unsuitable content and many others.

# The INTI Student Buddy System serves as a platform for buddies to chat and communicate with each other. By implementing the CMA, the system would become even more inclusive to everyone regardless of race, gender or nationality. Whenever a user feels like he or she is being bullied by other users or sees someone posting offensive content online, he or she can immediately report them in the system, the system will then analyze whether the report is true or false. If it is true, the user getting reported might get banned from using the system for the time being or get his or her profile removed from the system indefinitely.

# Some of the impacts if the Student Buddy System does not implement this act include the chances of cyberbullying happening in the system, offensive contents appearing on the system that might turn the system into a non-educational one. Without this act, the usage of vulgar or offensive words may hurt someone’s feelings and lead to depression, anxiety or even to suicide as these days, words on the Internet are highly influential to people. The sole purpose of this system was to cultivate the action of making buddies with each other in school and for users to have a fun and enjoyable time when using it. Contents that are indecent should not show up in educational systems like the INTI Student Buddy System.

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**Figure 2: Users will receive an alert to make sure they really would like to block or report the buddy**

**Figure 1: Users are able to block or report buddy at the Settings page under Buddy settings**

# Copyright Act 1997

# The next act carried out in this system is the Copyright Act. This law provides the legal rights to protect the creative works or inventions of someone, also known as the intellectual property of someone. For instance, if a person finds his or her creation like a piece of artwork or article being copied, he or she will be able to take legal action as he or she owns the copyright to the artwork or article. By taking legal action, the creator might receive an award of damages in respect of any unlawful use of the creation. Many kinds of works are protected under the copyright act, such as computer programs, films and many more. Only the owner of the copyright is able to copy, lend or show the work in public. Creators should protect their work to prevent from infringements happening.

# Whenever the user enters the settings page of the Student Buddy System, there will be a copyright text at the bottom of the page. This means that the Student Buddy System is copyrighted by INTI International College Penang and that INTI has all the rights to the system. Users of this system do not take any ownership of the copyright of this system. They are just using the system under the terms and conditions provided by the owner and the law. Furthermore, the name of this system is also protected under the Copyright Act.

# If INTI does not register its Student Buddy System for copyright, the system and its design will be copied and sold easily to third parties without any acknowledgement. The hard work and creativity of everyone who made this system possible would simply go to waste. This is because INTI will not have any rights to sue the third party if anyone illegally copies the design and layout of the system. Anyone will be allowed to make a profit of the original design of the INTI Student Buddy System.

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**Figure 3: The copyright text shown at the bottom of the settings page of the Student Buddy System**

# Personal Data Protection Act 2010

# The Personal Data Protection Act, also known as PDPA, was enforced in Malaysia on 15th November 2013. Its main responsibility is to oversee the processing of personal data of users in payment transactions and to make sure that the user data is not misused by the parties concerned. The activities where an organization processes user data like collecting data through phone, publishing data, recording data and so on should comply with the PDPA.

# There are a total of 7 principles to be followed with the PDPA. The first one is the General Principle which sets out the rights and responsibilities of the organization such as INTI while processing personal data. The next principle is the Notice and Choice Principle where the organization shall inform the user with a notice that his or her personal data is being collected and the user has the right to provide access or not to the organization. Whenever a new user registers for an account, he or she will be asked to accept the terms of conditions of the system. The Disclosure Principle means that the organization such as INTI, shall not disclose any user’s personal data without the consent of them. The next principle which is the Security Principle states that the organization which is INTI, should take necessary measures to protect the user’s data from any loss or misuse. The fifth principle is the Retention Principle. The personal data processed for any purpose should not be kept any longer than is necessary. The sixth one which is the Data Integrity Principle states that the organization that collects user data should be responsible to ensure the user data is accurate and up-to-date. The last principle which is the Access Principle states that the user should have access to his or her personal data and should be able to correct it anytime. Users in the Student Buddy System are able to edit their personal details in the system.

# Many users might risk their personal data being leaked and sold to other people if they fill up their details into a system that is not PDPA protected. This might lead to impersonation and will cause a lot of fake news by scammers. Their private email and password will also be leaked out and might link to other applications that they use the same details for.

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**Figure 6: Users are able to refer back to the Terms & Conditions at a later time under the Settings page**

**Figure 5: Users are available to edit their profile at a later time**

**Figure 4: Terms of User shown at Register Page for users to accept**

# References

# Cyber Laws of Malaysia:

Chia, Lee & Associates. (2021). *Basics of Cyber Security Law in Malaysia*. [online] Available at: <https://chialee.com.my/basics-of-cyber-security-law-in-malaysia/>

# Communications and Multimedia Act 1998:

PART I -PRELIMINARY. (1998). [online] Available at: <https://www.mcmc.gov.my/skmmgovmy/media/General/pdf/Act588bi_3.pdf>

# Copyright Act 1997:

LAWS OF MALAYSIA ONLINE VERSION OF UPDATED TEXT OF REPRINT. (2012). [online] Available at: <https://www.cric.or.jp/db/link/doc/malaysiaCopyrightAct1987asat1-7-2012.pdf>

# Personal Data Protection Act 2010:

LAWS OF MALAYSIA ONLINE VERSION OF UPDATED TEXT OF REPRINT Act 709 PERSONAL DATA PROTECTION ACT 2010. (n.d.). [online] Available at: <https://ilo.org/dyn/natlex/docs/ELECTRONIC/89542/102901/F1991107148/MYS89542%202016.pdf>

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