**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: **TAN YI JIA** | |
| CU Student ID Number: **12672752** | |
| Semester: **2** | |
| Session:  **April 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:  **22nd April 2022** | Due Date:  **Task 1: 13 May 2022, by 11.59pm**  **Task 2: 1 July 2022, by 11.59pm**  **Task 3: 17 June 2022, by 11.59pm.**  **Task 4: 17 June 2022, by 11.59pm.**  **Task 5: 17 June 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): Yi Jia Tan | |

## **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 – Discuss the ethical issue related to the software**

Ethics means that the theory of moral principles that tell us what is good and bad or right and wrong. In contrast, the computer ethics is a theory in ethics about the ethical issues and limitations that happen in the computer environment, and the solution to diminish or prevent the issues. Computer ethics is purposed to create a safe environment in computer-based like provide data protection so that to prevent leaking of important information of the individual. The examples of guidelines of computer ethics for computer users are do not use a computer to harm someone, do not use a computer to steal, do not copy and use a copyrighted software without pay and others. In addition, some cyberlaws and acts are regulated to control the cyber activities. For examples, Copyright (Amendment) Act 1997, Computer Crimes Act 1997 and Personal Data Protection Act 2010.

The major ethical issue that will faced in the TAR UC event system is the privacy concern. Privacy is the right of a person to keep their information and others in secret while data privacy is the right of a person to control their personal data form sharing the information to a wrong people. The examples of the personal data are name, gender, phone number, address, and other information. Nowadays, there are many cybercrimes happen in the world, for examples, phishing and cyber extortion. The main reason of these cybercrimes occur is due to the users’ personal data leaked from some organization. Thus, Data Protection Act is regulated to protect individuals from misuse of personal data. Based on the Data Protection Act, the personal data must can be processed for stated functions only and the data do not keep longer than essential. One of the examples of a company that misused users’ data is Google. In 2020, French data protection authority had fined Google on lack of transparency and lawful consent on advertisement personalization for around €50 million based on the European Union’s General Data Protection Regulation (GDPR). This means that Google did not state the terms and conditions of data privacy appropriately. (*France Fines Google €50 Million Using EU’s Transparency and Consent Law | Euronews*, 2019)

The data protection act in Malaysia is known as Personal Data Protection Act 2010 (PDPA) that applied to all individuals and organizations who processes and processing data. There are 7 principles that must be followed which are general principle, notice and choice principle, disclosure principle, security principle, retention principle, data integrity principle, and access principle. If an organization did not obey the principles will fine between RM100k to RM500k or 1 to 3 years imprisonment or both. Based on the principles of PDPA, one of the principles that TAR UC event system has followed is the general principle which stated that the data user can’t processing the individual personal data without their agree and the rights must be specified in the agreement. The principles applied in the college event system by a terms and conditions are display for the first-time user who access to the website and an option to agree or disagree on the agreement is gave to the user. In the terms and conditions will stated that how the data is collected and store and why the data is collected. Besides, access principle is the right of individuals to access and alter their personal data if it is incorrect, incomplete or outdated. This principle is also included in the system. After users registered account, they can edit their personal data by themselves such as password in the website. Nonetheless they can’t change their name, address, etc. by themselves but they still have the right to correct, update and delete their personal information. They should send email to relevant departments of college ask them to correct their personal data.

The second ethical issue is the intellectual property rights. Intellectual property defines the creation of the mind, for example, artistic works, music, images, products, and others that come out from a person’s ideas. However, the intellectual property rights are the legal rights provided the creator or inventor to protect their creative reputations or efforts in law. There are several types of intellectual property such as copyright, patents, trademarks, industrial designs, etc. The intellectual property that will discuss and apply in TARUC event system is copyright. Copyright described the rights that give to the author to own their works including literary, dramatic, musical, and artistic works, such as song, novels, movies, architecture and computer software. Copyright is the most common issue in the intellectual property area, and often happened in our daily life, for instance, when watching a video on Facebook sometimes the sound will mute for a few seconds is due to the copyright issues. The copyright act in Malaysia is known as Copyright (Amendment) Act 1997, which amended the Copyright Act 1987. This Act is to protect against the illegal program of copyright work on the Internet and to deal with issues on software piracy, violation of online trademarks, domain names dispute and new invention of patents. Based on the Act in Malaysia, for literary, musical and artistic works published during the author’s lifetime, the period of copyright protection is all the time when the author still living plus 50 years after his death, whereas for a work published after the author is dead, the copyright shall exist for 50 years from the publication of the work. The Copyright Act apply in the college events system to protect the student’s creation that posted on the website such as their artwork like posters and videos from lifting other peoples.

Finally, the effects on the society are also one of the common ethical issues on computers and software. The effects on the society can be look on three areas which are jobs, environment impact and social impact. Firstly, the development of computer and Internet have replaced many jobs and caused increase in unemployment. This is because the development of technology in the computer and software helps the tasks can be done easily in just one click. Next, to run the software in computers need to use a lot of energy that have turn increases the emission of greenhouse gases. The gases released will bring many effects to the environment such as greenhouse effect and thus global warming. Lastly, Internet has connected people all around the world with the social software, for instance, WhatsApp and Facebook. The software has brought positive impacts to us but also the negative impacts to the social. The purpose of the developers developed the software is to help people can work more easily but some people abuse the software brings up to cybercrimes and other social problems such as cyberbullying. Cyberbullying also known as online bullying, which more often occurred among teenagers. Cyberbullying can include posting rumours of someone or somethings, hate speech, sexual remarks and others. College is a place that a lot of teenagers gather and a place to educate them to become a person who can contribute to society once they become older. Thus, a college system must more concern on this issue. For TARUC events system there are a feature that let students write feedback on the experiences to the festival/event activities and societies and clubs. To prevent this issue occurs in college society, the system will filter, block, and remove the feedback with sensitive words or phrases. Then, the system will issue a warning to the person who write that feedback. Although it’s just a small society compare to the world, at least we can build a healthy society in college.

# References

*France fines Google €50 million using EU’s transparency and consent law | Euronews*. (2019). Euronews. https://www.euronews.com/2019/01/21/france-fines-google-50-million-using-eu-s-transparency-and-consent-law