

Example 1

Read the article and write a response in the spaces provided. Your response should be **approximately 750 words in total**. Write under the criteria headings A, B, C and D. Use clear and precise language. Use appropriate ITGS terminology. Develop answers that demonstrate understanding beyond what is explicitly stated in the article.

Topic: Health

Criterion A—The issue and stakeholder(s)

[4 marks]

Describe **one** social/ethical concern related to the IT system.

Presently, diabetes is a disease that affects people from all age groups. It forces those that have it to be conscious of their blood sugar levels at all times. The risk of having a blood sugar level is severe, because often times if it goes uncured, patients can fall into a coma. The online diabetes monitoring system presents a social issue to the public. Its use can help patients diagnosed with diabetes to avoid any problems that can be caused by this sickness by allowing them to log their blood glucose readings online to sites, such as LivingWithDiabetes. Furthermore, a site such as LivingWithDiabetes will help make the lives of patients easier and better by allowing diabetes patients to receive feedback about management of this disease.

Describe the relationship of **one** primary stakeholder to the IT system.

A primary stakeholder to the online diabetes monitoring system is the patient who has diabetes. The online diabetes monitoring system allows patients to manage their diabetes more efficiently. Nowadays young people avoid doing tasks that they find tedious or that require them to go out of their way to accomplish them. A site such as LivingWithDiabetes will then especially be beneficial to teenagers who have diabetes, because most teens spend a lot of time online anyway. But, no matter how old the patient is, an online diabetes monitoring system is extremely beneficial because it allows him or her to have the opportunity of logging their blood sugar levels online and receiving feedback from medical professionals on how to manage their disease.

Criterion B—The IT concepts and processes**[6 marks]**

Describe, step by step, how the IT system works.

The online diabetes monitoring system involves several steps. Firstly, a patient must use a blood glucose meter to read their blood sugar level. Secondly, the patient must store his results from the blood glucose meter on his computer. Thirdly, the patient must send his results to the LivingWithDiabetes web site. Lastly, LivingWithDiabetes makes the patient's records, along with the records of other patients, accessible to various doctors and nurses if it has been given permission to do so by the patient.

Explain the relationship between the IT system and the social/ethical concern described in **Criterion A**.

If the patient allows medical professionals to access his records, then he will be able to receive feedback about how to manage his diabetes more efficiently. The medical professionals will be able to give advice and answer any questions that the patient may have on his disease. But, even if the patient refuses to give medical professionals access to his medical records, a site such as LivingWithDiabetes would be beneficial to him, because it would allow him to keep track of his blood sugar levels in a more organized manner.

Criterion C—The impact of the social/ethical issue(s) on stakeholders**[8 marks]**

Evaluate the impact of the social/ethical issues on the relevant stakeholders.

The online diabetes monitoring system has two stakeholders. These stakeholders are the patients and medical professionals who will use the LivingWithDiabetes web site and the creators of the site. There are three prevalent issues with this IT system that have an impact on the patients who will use the LivingWithDiabetes web site. Patients are confronted with the ethical issue of privacy when it comes to using a site such as LivingWithDiabetes, because they record important, personal information on there. A patient must consider the pros and cons of posting personal information on any Internet site before doing so, because there are consequences to carelessly posting personal information. For example, even though LivingWithDiabetes allows patients the right to choose whether or not others have access to their health records, there is still a possibility that a hacker may gain access to the patient's private information. Furthermore, there must be a high level of trust between the patient and the owners of the LivingWithDiabetes web site. The site must only do what the patient agrees to, and the patient must be aware of the site's own privacy and usage laws. Patients who use the LivingWithDiabetes site are also

confronted by the social issue of the benefits that such a site will have on their daily lives. Diabetic individuals have the tedious task of measuring their blood glucose levels four times a day. By having the LivingWithDiabetes site, the task may become less tedious for some patients and won't disrupt their busy lives because most individuals spend a lot of time on the Internet anyway. The patients who decide to share their health records with other medical professionals will reap the benefits of being able to have questions about their disease answered. It is also important to note that one more social issue exists with having an online diabetes monitoring system. An online system, such as the LivingWithDiabetes site, requires patients to have access to a computer and the Internet. Unfortunately, not all diabetic patients will have these two necessities. Therefore, some patients will still have to rely on their own methods of recording their blood sugar levels and managing their diabetes.

Medical professionals are also stakeholders in this matter. By having the LivingWithDiabetes site, doctors and nurses will have access to health records of various patients. This will give them the opportunity to analyse the effect that diabetes is having on the human population. Furthermore, another positive social issue is the fact that well-kept records and access to the site will relieve the pressure on the nursing staff.

The creators of the site have to deal with the ethical issue of staying honest and respecting the rights of the patients who use the site. Also, they must be prepared to face problems that may occur if the privacy of patients is violated in any way.

Criterion D—A solution to a problem arising from the article **[8 marks]**

Evaluate **one** solution that addresses at least **one** problem identified in **Criterion C**.

Nowadays most people are very busy with the myriad of tasks that must be completed each day. Diabetic patients, like most others dealing with a disease, have the burden of having to record their blood sugar levels four times each day. For them it is important to measure their blood sugar levels this often, because if their blood sugar level gets too high, they can fall into a coma. The task of monitoring their diabetes simply is viewed as a tedious task. Furthermore, most patients aren't aware of all the details concerning their disease. The online diabetes monitoring system is a perfect solution to this problem.

Many patients, especially teenagers, spend much of their time online anyway, so a site such as LivingWithDiabetes will allow them to complete the task of recording their blood sugar levels without really going out of their way to do so. Plus, using a site is more fun than just recording data in a log book. Lastly, the LivingWithDiabetes web site will give patients the opportunity to receive feedback from medical professionals on how to better manage their disease.