Introduction

I will be analysing Social, Legal, Ethical and Professional issues in Project Specification 5 - Property Management Software.

Assumptions

- The final product will only be accessible to employees of Underhill Properties.
- The application will be used to store information about tenants.
- Underhill Properties doesn't already have a data retention policy.
- Tracking the actions of users will be done for security reasons.

Issue 1 - Data protection

1.1 Data retention

As this project will be handling data about tenants. There are numerous issues with how that data must be handled that will affect the project in a number of different ways

One such issue is GDPR, which implements a number of restrictions on how personal data can be stored and processed. As well as how people should be informed about how there data will be used.

One restriction that will be extremely relevant to this project is the introduction of restrictions on how long data can be kept. It says that personal data should be kept for no longer than is required. (European Union, 2016, Article. 5(1)(e)).

Meaning that processes must be in place to remove personal information that isn't needed. For example, after a tenant applies, or after the tenancy ends. Since the law is quite vague here, not specifying how long, 'longer than necessary' leaving it up to organisations to decide and justify. There is also the ethical issues, such as, how long should the records be kept for. As a balance needs to be struck, between tenant privacy and business interests.

For example, if someone applies to a property, how long should their data be kept for? If they are rejected from one, should the reasons be made available if they apply for another one? If it should, how long should the information be kept available? Finally, if they are accepted, how long should the data from the tenancy be kept available after it ends? These are the sort of questions that will need to be answered before development can begin.

As GDPR requires companies to provide a way for users to download the information that they hold about them. (European Union, 2016, Article. 15). Soon after this feature was implemented by Google and Facebook, a reporter for the guardian downloaded his information for both of these services.

The download from Google was 5.5GB, this download contained, 90,000 entries in his search history, Every event he'd ever added to Google calendar, and most relevant for this issue, is that the download contained information that the author had deleted from there account. Including a private encryption key. It also contained Google fit data after the author had "deleted this information and revoked Google Fits permissions". (Curran, 2018)

1.2 Informed consent / Processing

One of the project deliverables is the ability to record user actions. Under GDPR, users must be made aware of what data is being collected, and what kind of processing will be done on it. (European Union, 2016, Article. 6). Not only do they need to have to be made aware of the processing But they also need to give consent to the processing (European Union, 2016, Article. 7). However, it doesn't stop at requiring users to give consent, it requires that the user gives informed consent. Meaning there are made aware of how their data will be collected and processed before they give consent.

As well as legal questions it raises a number of ethical questions, such as how much data should be recorded about a single event? For example, should personal data be collected about the user who triggered the event? Personal information such as the IP address to identify the computer used. This sort of information can be very useful for identifying strange actions and possibly pre-emptively stopping a possible attacker.

Collecting data in order to secure an application is a very common practice in the security field. With the increased capacity to store data at reduced costs, means that companies are now able to justify collecting more user data. The amount of data that is collected has been on the rise. With 49 per cent of organisations say that they increased the amount of data they collected for security reasons over the past two years (Oltsik, 2017)

Issue 2 - Accessibility

As the project is to be used by multiple people, with mixed backgrounds and abilities. It is important that the final product is as easy to use as possible, by as many people as possible. This can be done by ensuring that the product is designed to be accessible from the start.

In a paper about the ethics of accessibility, 4 benefits of developing accessible software, these are social, technical, legal/public policy, and financial (Peters & Bradbard, 2010-05-04, Section. 4). As the product is only meant to be used by employees of Underhill Properties, the social aspect is less important, as it is meant for projects that will have a large number of end users. All with varying needs.

Due to legislation regarding discrimination, notably the equality act of 2010, which covers any discrimination. This can be classed as an having application that is not suitable for people with either temporary or permanent disabilities. In extreme cases where this isn't addressed. This can lead to the organisation being fined. The amount of the fine varying based on the severity.

The financial benefits of accessibility can be either tangible or intangible. An example of a tangible benefit is not needing to create multiple versions of the same application, in order to support different platforms. Since the product to be created in the project, is a web application, making it accessible, would mean that the website can adapt to different screen sizes. Rather than needing to creating a separate design for each screen size. Drastically reducing the amount of work to be done.

Intangible financial benefits of accessibility are more difficult to measure than tangible ones but could have a greater effect. For example, increased productivity of employees with some form of disabilities.

Earlier this year, Apple was sued by Himelda Mendez as she reported to having difficulties using the Apple website (Owen, 2018), due to her severe visual impairment. They were sued for violating the Americans with Disabilities Act, which is the American version of the British Equality act.

The suit demanded the implementation of WCAG 2.0 standards, which are the widely accepted guidelines for ensuring accessibility, as well as compensatory damages and legal fees. The case has not been settled yet (*Mendez v. Apple Inc.*, 2018). This case is important for the project, as it shows the potential consequence of not implementing proper accessibility guidelines. Also. the plaintiff in the case is demanding that Apple make their website more accessible as well as being made to pay the plaintiff. So if accessible access is implemented in the design phase, then those costs are saved. As well as making a better product that can be used by more people.

However, it is unlikely that a similar case would be brought against Underhill properties, as the product made during this project, will only be used by employees. So the much more likely scenario is that employees will either be less productive while using the product, or they will request that certain accessibility features are added after the fact.

References

Curran, D. (2018, Mar 28). Are you ready? here is all the data facebook and google have on you. *The Guardian*. Retrieved from https://www.theguardian.com/commentisfree/2018/mar/28/all-the-data-facebook-google-has-on-you-privacy

General Data Protection Regulation. (2016, May 4). *Official Journal of the European Union*, *L119*. Retrieved from http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:L:2016:119:TOC

Mendez v. apple inc. (2018, Aug 19). Retrieved from https://www.pacermonitor.com/public/case/25398561/Mendez_v_Apple_Inc

Oltsik, J. (2017, Sep). *How to handle the huge amount of security data we're generating.* Retrieved from https://www.csoonline.com/article/3227077/security/how-to-handle-the-huge-amount-of-security-data-were-generating.html

Owen, M. (2018, Aug). *Apple sued over claims website is inaccessible to visually impaired users.* Retrieved from https://appleinsider.com/articles/18/08/20/apple-sued-over-claims-website-is-inaccessible-to-visually-impaired-users

Peters, C., & Bradbard, D. A. (2010-05-04). Web accessibility: an introduction and ethical implications. *Journal of Information, Communication and Ethics in Society*, *8*(2), 206,232.