**ETHICS PROJECT**

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# Project 1

Our List of Apps

*1.Youtube*

*2.Snapchat*

*3.Instagram*

*4.Revelot*

*5.Discord*

*6.Gmail*

*7.Whatsapp*

*8.TikTok*

*9.Google*

*10.Spotify*

**APP NAME** : Discord

Q1 - How often do you think the app is designed to be used for,(how often do you use it) measure in hours and minutes a day on average?

Ans - The app was designed for players to communicate around the world while playing games online. I personally do not use it much given that I stopped playing games recently.

Q2 - How often is the app designed to send notifications?

Ans - Anytime a message or announcement is received or broadcasted.

Q3 - Are the notifications on or off (or does the app not send notifications)?

Ans - By default, they are on and can be adjusted based on preference.

Q4 - If it sends notifications,what sort of notifications does it send? Try to classify the type of notifications.

Ans -Medium notifications and it depends on the reaction of the receiver. They could be urgent, high, medium or low notifications.

Q5 - Describe whether users might feel the urge to reply instantly?

Ans - Most times, yes, because it might be a message to join a voice chat or play games.

Q6 - Would the users be able to ignore them or feel the urge to reply?

Ans - They would certainly feel the urge to reply and will react to the notification depending on the situation they find themselves in. If they can play or take action at the moment or not.

Q7 - Is the notification about an important or serious event that needs to be dealt with immediately (Eg notification that your assignment is due in 5 minutes vs fraudulent activity detected in an account)?

Ans - No, though there are notifications from channels about different games updates and news.

Q8 - Classify users behaviour when they react to the notification as hedonic or utilitarian(E.g general breaking news vs an update to an event that involves family members)

Ans - Most notifications will bring about a hedonic reaction, giving that the app main function is within the gaming industry.

**APP NAME** : Gmail

Q1 - How often do you think the app is designed to be used for,(how often do you use it) measure in hours and minutes a day on average?

Ans - Regularly to communicate in a professional setting and reach out to establishments and businesses. I check my gmail daily and spend an hour or so on the app.

Q2 - How often is the app designed to send notifications?

Ans - Everytime a mail is sent from another sender. Frequently I would guess

Q3 - Are the notifications on or off (or does the app not send notifications)?

Ans - By default, they are switched on and can be changed.

Q4 - If it sends notifications,what sort of notifications does it send? Try to classify the type of notifications.

Ans - Professional notifications stating the sender and content of the mail received

Q5 - Describe whether users might feel the urge to reply instantly?

Ans - Yeah depending on the gravity of importance and urgency of the mail but generally yes.

Q6 - Would the users be able to ignore them or feel the urge to reply?

Ans - Yes, they will feel the urge to reply as the app is used for professional and business purposes mainly. And so expect to receive important mail from it.

Q7 - Is the notification about an important or serious event that needs to be dealt with immediately (Eg notification that your assignment is due in 5 minutes vs fraudulent activity detected in an account)?

Ans - In a professional view, a meeting or urgent task or event might require urgent attention. While a random mail from a friend might be of less urgency.

Q8 - Classify users behaviour when they react to the notification as hedonic or utilitarian(Eg general breaking news vs an update

to an event that involves family members)

Ans - Given the app main function and use is in a business enterprise or company it would result in a utilitarian reaction from its customers.

**APP NAME** : Whatsapp

Q1 - How often do you think the app is designed to be used for,(how often do you use it) measure in hours and minutes a day on average?

Ans - Regularly (daily) and quite constantly.

Q2 - How often is the app designed to send notifications?

Ans - Every time a message is received (e.g text, audio, video, etc). Which happens every minute, hour or second.

Q3 - Are the notifications on or off (or does the app not send notifications)?

Ans - By default, they are on and are generally left on in order to be able to receive messages notifications.

Q4 - If it sends notifications,what sort of notifications does it send? Try to classify the type of notifications.

Ans - Urgent to High kinds of notifications, that may require a reply to, depending on its urgency.

Q5 - Describe whether users might feel the urge to reply instantly?

Ans - Generally, yes, users feel the urge to respond instantly to such notifications.

Q6 - Would the users be able to ignore them or feel the urge to reply?

Ans - Depending on the sender of the message, it could go entirely ignored or instantly answered.

Q7 - Is the notification about an important or serious event that needs to be dealt with immediately (E.g notification that your assignment is due in 5 minutes vs fraudulent activity detected in an account)?

Ans - No, the notifications are generally personal messages with people or groups. Only recently has the addition of channels been included.

Q8 - Classify users behaviour when they react to the notification as hedonic or utilitarian(Eg general breaking news vs an update

to an event that involves family members)

Ans - It’s a mix of both, it all depends on the context in which it is used. In a business setting between manager and employee, it invokes a utilitarian reaction while in a setting between friends or lovers it is an hedonic reaction.

**APP NAME** : Google

Q1 - How often do you think the app is designed to be used for,(how often do you use it) measure in hours and minutes a day on average?

Ans - In my opinion, this app was designed to be used every single second by millions and millions of people around the world. It offers one of the most useful benefits in human history. I personally use the app an hour minimum a day.

Q2 - How often is the app designed to send notifications?

Ans - I believe it was designed to send notifications about pretty much everything and anything depending on the user's feed and activity. Especially when something of importance (of which the user is interested or follows) happens a notification is sent to them. I believe it depends on the user's feed and activity.

Q3 - Are the notifications on or off (or does the app not send notifications)?

Ans - I think they are left on but can be changed based on preference.

Q4 - If it sends notifications,what sort of notifications does it send? Try to classify the type of notifications.

Ans - Breaking headlines and News about a related topic the user is interested in.

Q5 - Describe whether users might feel the urge to reply instantly?

Ans - They might feel the urge to read the article or news concerning their related interesting topic based on their interest in it.

Q6 - Would the users be able to ignore them or feel the urge to reply?

Ans - The same thing applies here, most times they might ignore it or instantly read or view it.

Q7 - Is the notification about an important or serious event that needs to be dealt with immediately (Eg notification

that your assignment is due in 5 minutes vs fraudulent activity detected in an account)?

Ans - It could be both as the app has a lot of features.

Q8 - Classify users behaviour when they react to the notification as hedonic or utilitarian(E.g general breaking news vs an update to an event that involves family members)

Ans - A mix of both as it all depends on their interests. It could be a professional event or even an entertainment announcement.

**APP NAME** : Snapchat

Q1 - How often do you think the app is designed to be used for,(how often do you use it) measure in hours and minutes a day on average?

Ans - In my opinion, the app is designed to be used in the range of 1-2 hours a day but personally i'd spend up to three hours a day

on average on snapchat according to the app usage tracking on my phone

Q2 - How often is the app designed to send notifications?

Ans - Snapchat send notifications when you receive a text message or someone you follow posts on their feed.

I dont think ive ever looked at my phone and haven't seen a snapchat notification,

so I'd say theres definitely a couple of notifications per hour.

Q3 - Are the notifications on or off (or does the app not send notifications)?

Ans - Originally, when you install the app notifications are set to on by default but you can turn them off or mute different

accounts/people individually from sending notifications to your phone.

Q4 - If it sends notifications,what sort of notifications does it send ?Try to classify the type of notifications.

Ans - The notifications on snapchat are classified as being 'High', meaning that they make a sound on your device and appear on the status bar

Q5 - Describe whether users might feel the urge to reply instantly?

Ans - Honestly, it really depends on a few factors such as who is the message from

(a close friend, family member or just a post on someone's feed), whether you in the middle of conversation or its just a message out of the blue

Q6 - Would the users be able to ignore them or feel the urge to reply?

Ans - Users often do ignore the notifications unless your in a conversation with the person sending the notifications, on snapchat you can send 'snaps' which are

just pictures (people usually don't have the urge to reply) or texts 'blue chats' which usually means someone wants to talk,

then the user feels more obligated to reply.

Q7 - Is the notification about an important or serious event that needs to be dealt with immediately (Eg notification

that your assignment is due in 5 minutes vs fraudulent activity detected in an account)?

Ans - No, rarely people would send important/serious texts on snapchat, like i mentioned earlier users don't have a huge urge to reply.

If it was a serious or urgent message people would call or SMS.

Q8 - Classify users behaviour when they react to the notification as hedonic or utilitarian(Eg general breaking news vs an update

to an event that involves family members)

Ans - It's definitely more hedonic than utilitarian as it's not an essential to reply to the notification,

personally, id pick up my phone to see who its from and reply when i'm not busy.

**APP NAME** : Instagram

Q1 - How often do you think the app is designed to be used for,(how often do you use it) measure in hours and minutes a day on average?

Ans - The app, contains a lot of content for entertainment, so the developers designed the app so people would be endlessly scrolling through the reels,

so i think it was designed to be used for at least 3-4 hours a day, but personally i spend an average of 40 minutes a day on instagram.

Q2 - How often is the app designed to send notifications?

Ans - Instagram send notifications when you receive a message or when someone you follow posts a picture on their account or their feed,

This is usually a couple of times a hour.

Q3 - Are the notifications on or off (or does the app not send notifications)?

Ans - Originally, when you install the app notifications are set to on by default but you can turn them off or mute different

accounts/people individually from sending notifications to your phone.

Q4 - If it sends notifications,what sort of notifications does it send ? Try to classify the type of notifications.

Ans - The notifications on snapchat are classified as being 'High', meaning that they make a sound on your device and appear on the status bar

Q5 - Describe whether users might feel the urge to reply instantly?

Ans - The average user would not feel the urge to reply instantly as normally the notifications are not directed at the user receiving the notifications.

If it's not a message notification then it's one about a recent post which is received by all the followers of that account.

Q6 - Would the users be able to ignore them or feel the urge to reply?

Ans - Most of the time i think the user would be able to comfortably be able to ignore the notifications without the urge to respond.

Q7 - Is the notification about an important or serious event that needs to be dealt with immediately (Eg notification

that your assignment is due in 5 minutes vs fraudulent activity detected in an account)?

Ans - Nothing important would really be posted in Instagram, it would mostly be memes, and people's social lives.

Q8 - Classify users behaviour when they react to the notification as hedonic or utilitarian(Eg general breaking news vs an update

to an event that involves family members)

Ans - It's definitely more hedonic than utilitarian as it's not an essential to reply to the notification,

Personally, I'd just swipe them away and not think twice unless it was a close friend.

**APP NAME** : Revolut

Q1 - How often do you think the app is designed to be used for,(how often do you use it) measure in hours and minutes a day on average?

Ans - The app is a type of bank account, so i think users would only go into the app to check their balance.

Personally, I only have an average of 7 minutes on revolut a day.

Q2 - How often is the app designed to send notifications?

Ans - The app doesn't really send notifications unless the user makes a purchase with the account, then the user receives a notification

telling them how much they spent and at what time.

Q3 - Are the notifications on or off (or does the app not send notifications)?

Ans - They are on by default.

Q4 - If it sends notifications,what sort of notifications does it send ?, Try to classify the type of notifications.]

Ans - The notifications on Revolut are classified as being 'Low', as it appears on your phone feed but doesn't make a sound.

Q5 - Describe whether users might feel the urge to reply instantly?

Ans - Users can't reply to the Revolut notifications.

Q6 - Would the users be able to ignore them or feel the urge to reply?

Ans - Users would normally look at the notifications at the end of the day, so they could get an idea on how much they spent.

Q7 - Is the notification about an important or serious event that needs to be dealt with immediately (Eg notification

that your assignment is due in 5 minutes vs fraudulent activity detected in an account)?

Ans - There could be a notification about something serious such as an a nefarious users trying to gain access to the bank account

or someone unknowingly to the account holder trying to make an online purchase using the Revelot account. In that case the user will

receive a notification telling them they have to approve a transaction on the revolut app.

Q8 - Classify users behaviour when they react to the notification as hedonic or utilitarian(Eg general breaking news vs an update

to an event that involves family members)

Ans - It's definitely more hedonic than utilitarian as its not an essential to reply to the notification, unless its about

and unauthorised transactions then their behaviour would turn more utilitarian.

**APP NAME :**Youtube

Q1 - How often do you think the app is designed to be used for,(how often do you use it) measure in hours and minutes a day on average?

Ans - I believe that it should be used for 30 - 1h

Q2 - How often is the app designed to send notifications?

Ans - as long as the user is subscribe every time the content creator uploads a video

Q3 - Are the notifications on or off (or does the app not send notifications)?

Ans - They are on as long as the user leave it activated

Q4 - If it sends notifications,what sort of notifications does it send ?, Try to classify the type of notifications.]

Ans - new video [Content of video] dropped, low

Q5 - Describe whether users might feel the urge to reply instantly?

Ans - Depends if the user is interested in the content or like the creator, so yes most of the times

Q6 - Would the users be able to ignore them or feel the urge to reply?

Ans - Yes they will be able to ignored them

Q7 - Is the notification about an important or serious event that needs to be dealt with immediately (Eg notification

that your assignment is due in 5 minutes vs fraudulent activity detected in an account)?

Ans - is not important

Q8 - Classify users behaviour when they react to the notification as hedonic or utilitarian(Eg general breaking news vs an update

to an event that involves family members)

Ans -depending on the creator it can go from a bland reaction to a exited one

**APP NAME :**TikTok

Q1 - How often do you think the app is designed to be used for,(how often do you use it) measure in hours and minutes a day on average?

Ans - for as long as 15 min and and as short for 3 min

Q2 - How often is the app designed to send notifications?

Ans - whenever a live stream of the content creator the user follows

Q3 - Are the notifications on or off (or does the app not send notifications)?

Ans - the notification are on by default

Q4 - If it sends notifications,what sort of notifications does it send ? Try to classify the type of notifications.]

Ans - low, no sound

Q5 - Describe whether users might feel the urge to reply instantly?

Ans - THere is no urge to open the notifications

Q6 - Would the users be able to ignore them or feel the urge to reply?

Ans - the user will be able ignore the notification

Q7 - Is the notification about an important or serious event that needs to be dealt with immediately (Eg notification that your assignment is due in 5 minutes vs fraudulent activity detected in an account)?

Ans - there are not important notifications

Q8 - Classify users behaviour when they react to the notification as hedonic or utilitarian(Eg general breaking news vs an update

to an event that involves family members)

Ans - depending on the creator it can go from a bland reaction to a exited one

**APP NAME** : Spotify

Q1 - How often do you think the app is designed to be used for,(how often do you use it) measure in hours and minutes a day on average?

Ans - Whenever you are free and want to listen to music so 3-4 hours

Q2 - How often is the app designed to send notifications?

Ans -whenever a the follow artist drop a new song

Q3 - Are the notifications on or off (or does the app not send notifications)?

Ans - there is a constant notification that shows the song that is playing

Q4 - If it sends notifications,what sort of notifications does it send ? Try to classify the type of notifications.]

Ans - low importance ,no sound

Q5 - Describe whether users might feel the urge to reply instantly?

Ans - yes, to listen to the new album

Q6 - Would the users be able to ignore them or feel the urge to reply?

Ans - they will feel urge to listen to it if the love the artist

Q7 - Is the notification about an important or serious event that needs to be dealt with immediately (Eg notification

that your assignment is due in 5 minutes vs fraudulent activity detected in an account)?

Ans - is not about anything important, you will be able to set it aside if needed

Q8 - Classify users behaviour when they react to the notification as hedonic or utilitarian(Eg general breaking news vs an update

to an event that involves family members)

Ans - if it is about the artist they like they will be exited

# Project 2

**Our Chosen Apps : Youtube**

Q - What do the app designers do to :

1. Compete,
2. Capture,
3. Retain

Ans a (Rihards) - Youtube has been around since 2005 and has been in the top rankings for the past 18 years. Their app has changed and evolved throughout the years to accommodate new trends and compete in the race to capture and retain human attention. A tactic YouTube has used that stood out to me was *Engagement*, a prime example of this tactic being implemented is when YouTube added reels to their app. In recent years reels have been the cream of the crop regarding keeping users entertained for hours on end, It was popularised by TikTok in 2019. Youtube jumped on the opportunity to monetize this short-form content as they claimed *“that a monetization option for short-form content has always been part of its long-term plan”.*  Reels focus on user interaction as after every video which usually lasts around 30 seconds, the users are prompted to swipe up to the next video. This keeps the users engaged and engrossed in the content.

Ans b (Daniel) - One of the biggest tactics through which Youtube retains the attention of its users is by sending “notifications”. So foremost, what are notifications? They are alerts sent to subscribers of a channel when a new video is made public. And also when content relating to the channel is shared or disclosed with a video, short or announcement. Youtube sends notifications either as push alerts or emails, which can be changed based on the users preference. By default, Youtube sends occasional notifications from the channels or content you watch a lot or channels you are subscribed to.

A distinctive notification method used by Youtube is the option to be alerted (notified) every time a video is made public (the “All” option) or to be notified/reminded about different channels you are subscribed to, from Youtube’s selection (the “Personalised” option). There is also the option not to be notified about anything regarding the channel. So, essentially Youtube uses this medium to capture and interrupt the attention of its users to divert them to use their app instead of using other apps.

Ans c (Elvis) - Youtube has the autoplay function that automatically plays a random video after the previous video ended, if the other video pick your interest you would most likely what the next video. The interface of youtube when watching a video on the right side show a list of other videos related to the video on the screen, or videos that have been recently uploaded from content creator that you previously watched or follow.

Q - What are the benefits and harms of each tactic listed ?

**Engagement** -

Harms - Engagement is overall a good tactic but experts have found a few flaws in regards to reels such as Causing OCD, which is an anxiety disorder because of the content. Experts suggest watching reels in moderation

Benefits - The benefits of Engagement include keeping the users focused and engaged into the content being presented.

**Notifications -**

Harms

* Being interrupted while completing a task can increase chances of the task not being completed.
* It increases wastage of time as our focus begins to spread around to unnecessary things.
* It affects the brain mentally as people get distracted or interrupted while completing or reaching an objective.

Benefits

* It reminds the users of their favourite content to watch.
* Sometimes it acts as a sort of break or pause from arduous mental work.
* From a creators point of view, it helps keep their audience engaged and informed in a timely manner.

**Retaining**

Harms

* Spend more time than intended in the app.
* Lost track of time.

Benefits

* Present you with more related content to the one you were previously watching.
* Helps avoid the repetitive action of clicking the next video to watch.

# Project 3

**Nudging theory**

**What is Nudging theory ?**

Nudge theory revolves around the concept that if you shape the environment around people in a particular way then you can influence the choices they make.

Nudge theory has its benefits and also unfortunately its disadvantages, but lucky for us the psychologist that invented The nudge theory also came up with three guidelines to avoid being a victim against the nefarious uses of the theory.

1. Be transparent.
2. Make decisions that are easy to opt out of.
3. Nudge with people's best interest in mind.

**Benefits of Nudge Theory :**

1. **Improved decision making. When a person is directed in the right direction both positively and ethically, they start to make clear and clever decisions as they will be used to logical reasoning a lot.**
2. **Positive outcomes in society. If used positively it can boost community cooperation and hardwork.**
3. **It is cost effective. Nudge theory is a big political tool, politicians may choose to implement it and if it doesn't work, it takes a while for the voters to notice. This gives them a cheap and effective way to influence people.**
4. **Simple and easy to implement. It requires simply pointing a person into a direction they were likely to take but with a little bit more reassurance.**
5. **Nudge theory can be used to understand how people think. Nudge Theory works when people’s interest and wants are taken into consideration, thereby making it easier to read and understand people's thought process and feelings.**

**Harms of Nudge Theory :**

1. **Nudges can be used as a from of social engineering, a way to encourage consumers to buy products they may not need**
2. **Unexpected outcomes, sometimes after implementing the nudge theory it's hard to predict what will happen.**
3. **Nudging mainly targets the weaker minded individual, the person who lacks a strong attitude and habits and that are easily influenced. This makes them vulnerable to the immoral uses of the Nudge theory. A weak minded individual is someone who does not have control over their decisions and allows others to dictate the flow of their life for them. They could be aware or unaware of this but regardless have no control or say on things. And as such, they are much more likely to be steered in the wrong direction or to agree with everyones opinions without rethinking or deciding for themselves.**
4. **Nudge theory is often used just for personal gain, this often results in a loss for the other individual.**
5. **People's freedom of choice gets taken away under their noses without them noticing.**

# Project 4

**Q - Identify 15 values that are important to people in their lives.**

1. **Money**
2. **Freedom**
3. **Family**
4. **Friends**
5. **Career**
6. **Companionship**
7. **Sports**
8. **Personal goals**
9. **Trustworthiness**
10. **Honesty**
11. **Health**
12. **Integrity**
13. **Respect**
14. **Education**
15. **Possessions**

# Project 5

Explain why it is important for a person who has, is, or will be studying that module to uphold those values - i.e, what are the benefits of upholding those values, or what harm might there be if the values are not upheld? So, given that you have three different modules each to write about explaining the benefits of three different values, you will each mention nine different values (three different ones per module.

**Module 1 - Web Programming And Databases (Daniel)**

Web Programming and Databases is a module that teaches students how to create an interactive client-based website for gathering data and relying information from/to its users. It is a very sensitive module as it focuses on the management of both private and public data. A database is an organised collection of information that is being stored digitally.

*Value 1 (Privacy)*

Privacy refers to the entitlement or right of an individual over what piece of information pertaining to them is being communicated or shared with others. One of the major values upheld by web developers is that of privacy and security. Before any kind of data is gathered through a website, a user should ensure that only information of their choice should be shared with third-parties. If people’s personal information is mishandled and lost or stolen, it can be used to cause harm to people directly or indirectly through people related to them somewhat. The different harms include and are not limited to; false personification or identity theft, discrimination, selling information to third parties, reputational damage,etc. Web developers should endeavour to state and clearly outline what information about users are shared or not.

*Value 2 (Ownership and Property)*

Ownership and Property refers to the right to an object. It could either be a physical object or digital imprint. Information stored on databases are sensitive and private, so much so that if they are in the wrong hands could end people’s lives and reputation. If people’s identities are stolen and misused it causes a whole lot of harm to the individual, group and society. As web developers manage and transfer massive amounts of raw data between websites, they should make it a priority to ensure that the users of their websites are aware/informed of the destination and intended use of any information obtained.

*Value 3 (Human Welfare)*

Human welfare refers to people’s mental, emotional and physical well-being. The mental breakdown and psychological effects an individual will experience when their private and delicate content is broadcasted to the world, would be massive and disastrous to such individuals. Studying this module helps developers distinguish what information might be deemed necessary and unnecessary to store and forward. As well as identify the consequences it might cause if it falls into the wrong hands.

**Module 2 - System Administration (Daniel)**

System Administration is a module that teaches students how to manage disks and create automated scripts that help save time and reduce repetitive work. It deals with core administration services and Web & File services.

*Value 1 (Trust)*

Trust is a fundamental building block to learn system administration as system administrators deal directly with the client’s devices and manage the way their systems and services function. It is important administrators upheld this value because they risk losing their client as well as ruining their reputation if something goes wrong. And clients stand the risk of losing delicate information that would harm them, the company they work in and any stakeholder involved. Such a person would hold a bad reputation in the workplace and would not be trusted by their colleagues with their sensitive data to handle.

*Value 2 (Accountability)*

Accountability is the ability to assume responsibility for one's actions and choices. Being accountable for a system administrator is key as they are most likely to find themselves providing solutions for mistakes or errors committed and done in a client’s system or service. Another reason is also because being accountable helps relax both the client and administrator, and look for a better approach towards the problem presented. Also, if system administrators were not held accountable they could do and perform actions on clients devices that are neither morally and ethically right. For example, adding a computer virus or software bug that reactivates over a period of time as a means of having the client revisit the administrator for services and financial gains. Also, if system administrators are not held acountable they can get away with any damage caused on client devices and not have to consider the solutions for it.

*Value 3 (Informed Consent)*

Informed consent is the process of providing a client or customer with information before an agreement is made about risks, benefits or consequences relating to a decision or choice they might take. Before a system administrator can access and manage a client’s system they need consent and need to inform them on what areas of their devices or systems are being managed and modified. A client also has the responsibility of informing the administrator on areas they wish should remain untouched and unmodified.

**Module 3 - Ethics (Folosiye)**

Ethics module teaches ethical principles, moral reasoning, and how to apply these concepts to real-life situations. It helps individuals make informed, morally sound decisions in personal, professional, and societal contexts, promoting critical thinking and ethical awareness.

Value 1 (Privacy)

Privacy is a vital topic in Ethics, and can be seen in ethics through addressing the ethical considerations and principles related to personal information and data protection. In any Cybersecurity role before tasks or projects can be underway ethical dilemmas related to data collection and surveillance must be considered as well as the use of privacy enhancing principles. I personally think privacy should be a bigger talking point in the world today and “Ethics” helps start the conversation at the very least.

Value 2(Autonomy)

Autonomy is also vital as it emphasises the principle of individual self determination and self governing, exploring some topics like personal freedom and liberty, informed consent etc. every individual has the right to make decisions about their personal information after being provided with the relevant correct information,and these decisions should be made in ways that do not harm others.

Value 3(Accountability)

By upholding the value of accountability; emphasising the responsibility of individuals and more importantly organisations to recognise and answer for their actions we are set to gain many positive outcomes such as: Stakeholder satisfaction, improved transparency, trust and credibility etc.

**Module 4 - Operating Systems (Folosiye)**

The Operating Systems module teaches students the fundamental principles and functions of computer operating systems. It covers topics such as process management, memory management, file systems, and hardware interactions. It teaches how operating systems facilitate efficient and secure resource allocation in computer systems.

Value 1(Environmental sustainability)

Energy has been highly optimised by the introduction of Operating Systems around the world from smartphones to cars. I think we can say with the addition of Operating Systems that humans have been able to live easier lives.

Even so we still have many recurring issues such as: resource management, power consumption, and energy efficiency, these can be reduced through the reinforcement of environmental sustainability. Motor vehicles can be a good example as it is quite difficult to efficiently dispose of a motor vehicles, lots of old vehicles are still around today with new ones being made, with over 4 countries with more than a vehicle per person(Wikipedia Contributors (2019). *List of countries by vehicles per capita*. [online] Wikipedia. Available at: <https://en.wikipedia.org/wiki/List_of_countries_by_vehicles_per_capita>.)

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Value 2(Universal usability)

In the development and designing of Operating Systems and its interface and features, it is important to make it accessible and user friendly for a diverse group of users. For example people who have disabilities, left handed people etc, providing clear documentation and intuitive interfaces. By reinforcing universal usability the satisfaction and user experience of the stakeholders will improve and technology becomes inclusive and accessible to a broader range of individuals.

Value 3(Ownership and property)

In operating systems, property and ownership are best understood in terms of resource management and access control.

To manage who has access to system resources, operating systems employ access control techniques. Permissions are linked to objects, and user rights are applied to user accounts (paolomatarazzo (n.d.). *Access Control Overview (Windows 10) - Windows security*. [online] learn.microsoft.com. Available at: https://learn.microsoft.com/en-us/windows/security/identity-protection/access-control/access-control.). Because certain resources are only accessible by authorised users, this creates a sense of ownership. Operating systems also control system resources such as CPU, memory, file storage, I/O devices, and network connections (Hemmendinger, D. (2022). *operating system | Definition, Examples, & Concepts*. [online] Encyclopedia Britannica. Available at: https://www.britannica.com/technology/operating-system.) By controlling which processes are allowed to use these resources and when, the operating system (OS) essentially creates property rights inside the system.

**Module 5 - Programming(Rihards)**

Programming teaches you how to give machines instructions as well as teaching you abstract thinking and problem-solving.Problem solving skills and creativity are vital to becoming a successful programmer.

Value 1 (Trust)

Programming is vital for businesses, and programmers handle sensitive information that they are trusted with by the employers to keep safe and undisclosed. They are required to set up websites and make them secure. It is Important for people studying programming with uphold trust as in my opinion it’s the most vital value for this subject, it could cost the programmer their reputation or even job.

Value 2 (Accountability)

Students studying programming should uphold the value of Accountability. In the future they will need to write important algorithms. If something goes wrong with the code. They should be held accountable and admit to their errors so they can improve and not make the same mistake again

Value 3 (Privacy)

Students studying programming will be entrusted with information that if got in the wrong hands could wreak havoc on the enterprise they are working for. It is very important that these students acquire the value of Privacy, so everyone’s details remain undisclosed. If this value isn’t upheld it could have serious and even arrestable consequences

**Module 6 - Networking (Rihards)**

Networking teaches you how to study and analyse how computer devices communicate with each other and resolve any issues that may arise within a network.

Value 1 (Calmness)

There is a sense of calmness involved with working in Networking, when the pressure is on and the workload increases its important to remain calm and on top of things as Networking comes with a lot of responsibility

Value 2 (Autonomy)

Autonomy is essential to networking, Students studying networking have to work on developing and mastering this value. Studying this Module sometimes means you have to think outside the box and resolve issues that way arise within a network

Value 3 (Courtesy)

Courtesy is important for a student to be good at Networking overall, as networking involves resolving issues that people may come to you with. As an individual who knows alot about networking you have to understand that other people might not know as much and may have ‘stupid’ issues or questions.As a professional you have to help them and be polite !!

**Module 7 - Applications(Elvis)**

This module teaches us the basics of all the Microsoft apps, the function of each app, and how to use it in a professional environment.

Value 1(Professionalism)

The lead, points, or characteristics that describe or check a calling or an expert individual. The module teaches us about how to write a document in a professional way, it prepares us for a company environment where we have to be professional.

Value 2(Insightfulness and Resourcefulness)

In this module we had to do a project about any subject of our choice and this made us look for information about the subject and show to the rest of the class how much we know about that subject.

Value 3(Growth)

At the end of this module we see how much we have learn since the first day doing this module, the goal of this course is to prepare us for a professional environment, and if you have no prior experience with the apps used in this course we can see how much growth someone that was following through with this course has had.

**Module 8 - Project Incident Analysis (Elvis)**

This module focuses on the procedural and management side of incident handling and risk analysis. It teaches students how to react and handle risks and incidents that may occur in the workplace.

Value 1(Calmness)

Calmness is the ability to be free from any disturbance or agitation and emotions,

In a company, if we find a problem with a project, we need to be calm and collected to find the solution, we don't have time to let our emotions get a hold of ourselves. If because of our emotions, we failed to discover the problem, we need to take accountability .

Value 2(Accountability)

Accountability is an obligation or willingness to accept responsibility or to account for one's actions, if because of our mistakes causes a delay to the schedule we should recognize that it was our fault and try to make up for that mistake, as that mistake could cost damage to the company.

Value 3(Informed consent)

Informed consent is the process in which a health care provider educates a patient about the risks, benefits, and alternatives of a given procedure or intervention.The company will be informed of the situation and we will decide if an incident occurs, we as a team will gather to decide the course of actions, especially since we are doing cyber one mistake will causes a security breach which can endanger the information of the company.

**Module 9 - Penetration testing(Marko)**

To provide theoretical knowledge and the practical skills of security testing and documenting the security posture of software application and underlying infrastructure.

Value 1 (Privacy)

Privacy is right for the individual or the company to withhold any information about themselves. Privacy of the individual or the company should always be upheld because a person who is doing pen testing could accidentally find information that is supposed to be private while doing their job. If such information is discovered, the company should be warned about that problem and that information should not be shared with anyone outside the company.

Value 2 (Accountability)

Person who is studying this module should take responsibility for any problem or mistake that may arise from their work because they are working on the safety of the company and its stakeholders. By refusing to take responsibility for that problem or mistake they are endangering the company and the stakeholders. They also won’t learn from their mistakes, and they might repeat the same mistake while working for another company.

Value 3 (Informed consent)

Informed consent is important for penetration testing because the company must be informed about things that will be done, what will be accessed, and all the risks involved. If such information is not disclosed, the company might refuse to do penetration testing. This would put them in danger as they might not be ready if somebody decides to attack them which could have been prevented if they were informed about it.

**Module 10 - Automating Security Practice (Marko)**

To provide theoretical knowledge and the practical skills to automate cybersecurity testing and attack automation techniques.

Value 1 (Universal usability)

Universal usability means that anybody with some knowledge of the subject will be able to perform the basic tasks in that job. While creating or updating the code for automated security there should always be comments next to any new or unique code that describes its purpose. This can help any other cyber security personnel to understand what was done to the code and if the person who created it leaves the company, it can help anybody who is hired to replace them.

Value 2 (Freedom from bias)

Freedom from bias means that a person doesn't have any private opinions or feelings about certain topics. Any bias or opinions should be disregarded while working because they could affect the judgement of the person. If they don’t disregard their bias, they might feel that they should only do a minimal amount of work because of their opinion towards the company. This could lead to them accidentally putting a vulnerability in the code, which would endanger the company and the stakeholders, because they didn’t bother to check the code for any mistakes.

Value 3 (Trust)

Trust is important for automating security because it is the first line of defence in the system. People who are creating security measures should uphold the trust of their employer because they are responsible for the security of the whole company and its stakeholders. If they leave vulnerability in the code, they are risking the safety of the company and breaking the trust their employer puts in them. This would see them fired and they would have a hard time finding another job in the same sector because of their bad reputation.

# **Project 6**

*App chosen = Snapchat*

*Risky future chosen = Scenario 8*

Facial recognition technology is a mainstream tool available to any individual or organisation. Subscribers can tap into a database with hundreds of millions of faces indexed and clearly recognizable. Cameras are installed in most public and private spaces to take advantage of this technology, and a new ecosystem of apps emerges that integrates facial recognition across all product categories: dating apps, shopping apps, neighbourhood apps, games, and more.

## **Part A**

**Facial Recognition Technology**

***Question*** - 5 things that can go wrong with Facial Recognition tech

### Infrared lights (Peter)

Most facial recognition technology on phones make use of infrared lights typically near-infrared-lights(NIM). It is a type of light humans cannot see as it is on the part of the light spectrum we cannot see. How does this relate to the app? Snapchat is a social media app which is free to use, in this case one of the many ways snapchat would create revenue is by advertised ads. When downloading the app, you are prompted to allow access to your camera, and in turn those special lights.

With the use of infrared lights targeted ads automatically go to another level, the lights are being flashed every 5 seconds and snapchat can basically tell what exactly you are looking at on your phone while inside and outside the app. This could lead to indirect persuasion by ads, to buy certain products or buy into certain political views. I also believe different skin types were not taken into consideration. Darker skin types tend to absorb more light compared to lighter skin. If exposed for a long time to infrared radiation, especially if concentrated could lead to localised heating on the skin.

### Invasion of privacy (Marko)

In todays world snapchat uses phone cameras to apply filters to users face . Snapchat in the future could use a phone's camera to monitor the user and record their daily life. By doing this algorithm will learn about the user and what they like, dislike, want or need. This data could then be sold to companies who would target the users with specific ads. Companies who bought data about the user will be able to monitor users life without their knowledge.

### Identity theft (Rihards)

Identity theft is a real possibility in todays and tomorrow's world when it comes to facial recognition and how far it's come in recent years. Snapchat for example is an app that really popularised “Face filters”, it started off as dog ears placed on your face when you put the camera onto yourself and now you can morph your face to look like a horse… a realistic one at that too. In a couple of years time facial recognition could get so advanced alongside the voice filters people could pretend to be certain individuals and use these advancements for nefarious purposes.

### Body dysmorphia (Daniel)

First of all, what is Body dysmorphia? Body dysmorphia or BDD (Body Dysmorphic Disorder) is a mental health condition where an individual is heavily concerned with/thinking about flaws with their body, physical appearance. Most times these flaws are not noticed by others or recognized as flaws at all. In layman terms, it is judging your body too harshly and negatively. How does this translate into facial recognition technology in snapchat? In my opinion, I believe it’s not unwise to predict that in the foreseeable future snapchat will begin to introduce proper in-app features that can automatically smoothen/lighten skin tones or change body shapes to appease the user. I am not saying there are no such filters already but they will eventually explode and escalate to exaggerated versions where people would actually look completely different and would prefer that over themselves.

### Facial features (Elvis)

Snapchat is an app mostly known because of its filter, when you use the snapchat camera and apply a filter, the app scans your face to be able to accurately place the filter and give it the necessary effect needed on your face. Now if we go to the internet we can see Ai from fictional characters from movies that look really similar to how they would look in real life, in the future when technology is more advanced they could make an even more realistic version where you can’t distinguish the AI generated version with the real person. And snapchat having our facial features could be really/ fatal if they ever decided to sell out data.

***Stakeholders* (**Identity Theft**)**

* **Individual - Peter**

The individual refers to a person who has interest or major involvement in an organisation. Identity theft can have major consequences for the individual stakeholder, it could lead to financial loss, loss of privacy, emotional distress, it could even lead to reputational damage. There have been advances in technology that allows for various ways one's identity could be stolen from data breaches to malware and spyware attacks, skimming devics or even taking advantages of weak passwords.

Though there are these looming concerns, there are also many ways to prevent identify theft for the individual. Being aware of the security level of websites, Wi-Fi, regularly use complex passwords, enabling two- factor - authentication etc.

* **Family - Marko**

Family doesn’t refer to only the close family members but the distant ones as well. Even in today’s world identity theft can be very harmful to the family of the victim. It can lead to distrust between family members, emotional and financial instability in the family. When the technology reaches the point where you can have somebody else’s face or voice over the phone call it will be devastating for relationships with family members. You could talk with somebody who looks and sounds exactly like your sibling without knowing if it is actually them. They could ask you for money or private information that you would give them without second thought. When you meet with your sibling and ask them to return the money you gave them they would be confused and you would be angry that they are pretending to not know what you are talking about. This distrust could grow to encompass the entire family which will at that point be divided.

* **Friends - Rihards**

Friends refer to the people you surround yourself with on a daily basis. The people you trust and hold close to you. Friends are entrusted with sensitive information about one another that shouldn’t be shared among others. If facial recognition developed to the point where it breaks the barrier of reality, it could become devastating for friendships. Intruders could pretend to be others and communicate with their close friends, asking them for money that will never be returned or information about something that they wouldn’t disclose to anyone but a close friend. This could lead to breakdowns or friendships and trust issues for the people involved

* **Work colleagues - Daniel**

Work colleagues refers to the people and company you keep around you while working and completing a job. Identity theft can have either a direct or indirect impact on their lives, depending on the gravity and extent to which the subject’s identity is misused. For example, if a co-worker of a John whose identity was stolen, is somehow connected or assisted in a crime committed by the thief because they thought they were helping John, they can be accused of being an accomplice of such said crime. The coworkers can also be misled into giving delicate information about anything because they thought they were speaking to John who could be a lawyer, policeman, banker, etc. We now see how people can be easily manipulated and how information can be easily gotten about anything in any sector of life. An interesting quote I found is; “*Experts say the best defence against workplace problems related to identity theft is to be proactive in alerting your current — or, if you’re job hunting, prospective — employer.*” (Grant, Kelli)

* **Stakeholder group 5 (Others - Elvis)**

Others include people around the victim that could be either directly or indirectly related to the victim of identity theft. The way others suffer the problem of identity theft is if for example they work in a bank as cashiers and end up opening a bank account for an individual thinking it's the rightful owner of the identity but instead it's the hacker. Thereby, damaging company reputation or assisting in a crime indirectly and unaware of it. Another example is if the hacker decides to purchase a house with a credit account with the victim’s information thereby ruining the credit score of the victim and putting the real estate company at a loss. Essentially, identity theft has a ripple effect that affects others, from family and friends to banks and businesses both financially and emotionally. It can also involve legal parties (e.g. court), if the thief commits crimes using the stolen identity, therefore damaging the reputation and future opportunities of the victim. It’s important to support and protect those who have experienced identity theft as well as take preventive measures to safeguard our own identities.

# [Rihards Individual work](https://docs.google.com/document/u/0/d/1PYNqts-KbU0q5tMZIfU9wAkrCNcdovm8ZcZDzgEri7Q/edit) : Risk zone = Surveillance state

# [Daniel’s Individual work](https://docs.google.com/document/u/1/d/1qYdPbVeh49DOkjxsMY_5CfYx4mZ0UUHuIZom9pkIjfw/edit) : Risk zone = Economic & Asset Inequalities

# [Marko’s Individual work](https://docs.google.com/document/d/1xeeFDyfQS8ApdJi3A0cdkYVvuVZAxjeyj2ftQw0JUgc/edit?usp=sharing) : Risk zone = Truth, Disinformation, Propaganda

[Elvis's Individual Work](https://docs.google.com/document/d/1GDd0Foho5nccn9qeg-iefvLrdMvxN00p4Qg4JQWShK0/edit?usp=sharing) : Risk zone = Data Control & Monetization

<https://github.com/Danemma0/Assembly_and_C/tree/main/PRACTICAL_02>

[ASM 02](https://github.com/Danemma0/Assembly_and_C/tree/main/PRACTICAL_02)