**PROJECT DESCRIPTION - JOSHUA**

**WHAT DOES IT DO? (600 WORDS) ~420 words**

Intro: As a group we decided that our project idea would be a health issue prediction tool. This tool would be a web-based application, with the potential of eventually being made into an application for mobile phones, such as iOS and Android. The web application would allow Australian’s to go online and predict any health issues they may have based off information they provide to the system.

When users first access the website, they will be promoted to enter personal information such as their age, sex, and any past medical issues they have had. Users will then be asked if they optionally would like to enter more information. The more information the user enters the more accurate the predictions will be. Additional information they can enter could be ethnicity, diet, weight, any family illnesses, are they smokers, alcohol consumption, etc.

After the user enters the information they have chosen to share, the system will analyse their information against existing medical conditions. For example, a user enters that they are in their 60s, have had a cough, nasal congestion, and a headache. The system will look at these symptoms and determine what the most likely medical condition for this is. After giving the user the most likely medical condition, it will advise them on the next steps to take which could include taking cold medication and resting or seeing a doctor if it gets worse.

----ethical and legal requirements from predictions----

This application would be a prediction tool which bases its information off trusted information, such as “healthdirect” which is an Australian Government website which provides general ‘trusted health information’. The system could determine the symptoms and then tally them, then the symptoms with the highest tally would be shown to the user. For example, a user says they have a blocked nose. The system could find symptoms such as a common cold, hay fever and deviated septum. Then if the user has an account with saved information the system could review that information along with current seasons (as in winter, spring, summer, autumn). If the system notes that it is ‘hay fever season’ it could change the ‘tally’ to increase the likelihood that it is hay fever. Then the system notes that the user does not have a high temperature and then tallies down the likelihood of the symptom being a fever. Once the system runs though majority of the possibilities, it will produce the user with its prediction, which in this case would be hay fever.

**WHAT IS THE LIKELY IMPACT? (300 WORDS) ~220 words**

The system would have the ability of majorly reducing the stress on the public health system. By using this online system Australian’s would not have to visit their general practitioner as often, therefore saving funds and resources for other Australian’s with serious health issues. The stress on the public health system is more apparent now than ever due to the COVID-19 pandemic as many Australian’s are going to their general practitioner to diagnose symptoms they have, which could be just the common cold. Instead of going to their general practitioner, Australian’s would have the ability to answer questions to determine if they actually need to go to their general practitioner.

CSIRO researchers stated that by helping the ill monitor and manage their conditions at home instead of going to their general practitioner or hospital they could ‘save the health budget up to $3 billion a year’. Another article published by Roy Morgan states that ‘11.3% of Australians (14+) looked up health or medical information online’, suggesting that many Australian’s already prefer looking online for medical advice. Therefore, having a reliable system which would be built with the input of professional doctors’ people would be able to get reliable information, unlike many other websites where people can simply enter what they believe, without any medical information to back their claims.

**HOW WILL THIS AFFECT YOU? (300 WORDS)**

This web application this will have the ability to save many families lots of time as they would not have

**PROJECT IDEA**

**PROJECT DESCRIPTION:**

Privacy and security will have to be a major part of this system as it would store and manage highly confidential information. To ensure the privacy of users the system would allow users to get health predictions without having to create an account or entering any identifying information such as name, address, Medicare number, etc. After a user gets their personal information/symptoms analysed, users could optionally choose to create an account in order to store their information that they have entered. By giving users the ability to store their personal information they would be saving time the next time they needed to use the system as they would not have to re-enter all of their personal information, instead they would only have to log in and enter their new symptoms.

**References for Project Ideas**

* World Health Organization 2020, Health Impact Assessment (HIA) - The determinants of health, viewed 28th April 2020, <<https://www.who.int/hia/evidence/doh/en/>>.
* Australian Medicine 2019, Telehealth could deliver massive savings: CSIRO, viewed 28th April 2020, < <https://ama.com.au/ausmed/telehealth-could-deliver-massive-savings-csiro>>.
* Roy Morgan, More patients using internet to self-diagnose or get a second opinion, viewed 28th April 2020, < <http://www.roymorgan.com/findings/6632-going-to-the-doctor-and-online-for-health-and-medical-research-september-2015-201601180355>>.