Problem Specification

The student has to demonstrate that they understood the problem and described a sensible approach to solving it and that they clearly specified the objectives of the project. There should be an analysis of the problem domain and an indication of the proposed interface design and content of the project. A timetable for the work should be included along with notes on potential problem areas. The primary purpose of this deliverable is to ensure that the project is suitable/feasible and that the student has a clear plan and is engaging correctly with the project. This document should be no more than five pages in length. A copy of the Problem Specification/Project Plan should be emailed to your project supervisor (and company/employer supervisor if appropriate) by the deadline for submission as outlined in the Project Schedule table in this document.

The project goal is to create a working prototype of a highly innovative dashboard-type interface that can alert a professional user (e.g. a medical doctor, a career adviser) to developments/trends of interest (or concern) in a record of events or observations that is evolving in real time (e.g. as the professional user updates a database while conducting an interview with the patient/client). The system should borrow from conventions adopted in graphical representations – not necessarily computer-based – that help users monitor complex processes or navigate through complex environments (e.g. car dashboards, aircraft flight displays, information panels on consumer devices, project timelines, schematised maps). For this project you will have to identify and learn how to use an appropriate set of interface development tools, probably for a Java-based implementation. Your demonstration system should show display elements being activated and changed by sets of rules that are appropriate to your chosen problem domain and that use appropriate data. The human expert using the display should be alerted subtly but appropriately to developments of interest (or of concern) while he/she engages in other tasks (e.g. updating the patient’s record/the client’s notes during the live consultation). Programming Languages Used: Java, Windows, and any appropriate specialised GUI development toolkit

Introduction

The problem

Since patients cannot always visit the same doctor or if they do visit their doctor regularly the doctor seeing them may not be aware of pass ancients that could potentially be linked to their current symptoms/ illness. If a symptom seems to be nothing a doctor who is unaware of the patients pass medical history may over look this symptom without realising the links to pass symptoms and illness. Since certain diseases are difficult to diagnose as they show very few symptom or these symptoms build over the scale of months or years. Not know the patients fully medical history in advance could seem symptoms that point to serious other lying illness go unnoticed. As it is possible for doctors to know the full medical history of every single patient they see and this would be a very repetitive task after or whilst seeing a patient to read over all of their records in case a symptom which seems small has the potential to be more serious.

Other software

There are other symptom checker alternatives on the market however they rely on doctors’ knowing the symptoms and manually writing out these symptoms so that they can be analysed, to see if they match the symptoms of other diseases. Although these programs are powerful and can compare symptoms against the known symptoms of other diseases. This approach can be problematic as it assumes that the doctor already knows all of the patients’ symptoms. Also if he or she feels that the problem is too small to deem further inquiry than there is the risk that serious illness could potentially go unnoticed.

The solution and why

A software application which records and monitors patterns or symptoms as a doctor is taking their notes means that the problem of whether or not a he or she deems something to be important or not affect the diagnose software, everything would be taken into account. For example, if symptoms that appeared over the course of a years might not show importance until diagnosed together, so until on their own they are not important the recording and monitoring system may be able to spot an underlying pattern. Since the application would recording the patients information in search of threads if it found the symptoms matched up the application cold notify the doctor as they are recording the patients’ notes. Meaning that even if the doctor is new to this patient or unware of relating pass information they will be aware of this thread.

Design

Although there is no need to re-invent the wheel and create a new surge system for doctors when they already has a functioning surge system to take their patients notes on. It would be useful to has a prototype surge system were it could be demonstrated how the recording and monitoring application would fit in with the current surge system. The focus of the design is to create an alert system which gets the attention of the professional user however does not alarm the patient. So the warning needs to be subtle but effective.

Project Plan

The reason for this dashboard interface to target the problem of symptoms may seem inapt at the moment however over time these seemly inapt symptoms may point to a more serious other lying illness. As for the purpose of this project the symptoms used for demonstration will be for illness that develop over time, showing little to no symptoms such as colon cancer,

However, this software will only work as a guide which will be able to notify a doctor that there is a particular pattern which could mean even though the system should be able to narrow down

There are other symptom checkers such as Isabel which can check symptoms

Other software

* NxOpinionB
* Isabel

Project Plan

Programming

Medical

Recording and monitoring

That agile is a suitable method for structuring a project. That we can use recording and monitoring software can aid the diagnoses process.

Programing approach

Medical symptoms

Similar software or programs

The theory that a recording and monitoring software would greatly benefit the diagnoses process.

None

None