

Task description:

We have a transcript of a stakeholders interview conducted for the following system, divided into small chunks, and a set of user stories derived from this interview.

Given a user story and a set of five chunks from the interview, the goal is to identify which chunk(s) the user story could have been derived from. A user story may relate to zero, one, or multiple chunks.

A Qualtrics survey will be used to collect the responses. The survey will include five questions (one for each of the five user stories, each with its corresponding set of five chunks)

Overall system description:

PreDent

Predictive Dental Appointment Scheduler

Organization

Brush Hour® Dentistry is a growing dentistry company with over 20 practices. Currently, Brush Hour's success lies mainly in keeping patients happy with fair assessments of their situations and competitive pricing. Since this approach to the dentistry field is what is getting the company new customers, they want to explore new ways to increase patient satisfaction even further. Currently, they are interested in developing a system; PreDent, that helps them and their patients to intelligently schedule appointments for different procedures based on the patients' unique history, situation, and dental needs. This way, they hope to improve their quality of care as well as saving patients money while giving them more insight and control over their dental care, leading to increased customer satisfaction, a higher return rate of existing patients and a higher influx of new patients.

As-is situation

In the current day and age, it is common practice for patients to be recommended to go to the dentist once every 6 months for a general checkup. In this checkup, the dentist always does some basic checks of the patient's teeth, and sometimes (e.g. once a year) does some additional checks such as taking x-rays, although this does not always happen consistently. With this system, patients only get special procedures when a problem is found during the checkup, or when the need arises before the checkup, for example due to pain or other symptoms in the patient. Another problem is that many clients do not adhere to the recommended 6-month schedule or even fail to go to the dentist on a regular basis, mainly because of the monetary cost of going to the dentist. Dentists do currently store information about patients' teeth, where they can see exactly which teeth are present, what dental problems the patient has had in the past and for which teeth, what kind of procedures have been done in the past, x-rays that have been taken, as well as some general medical data about the patient. Nevertheless, this information is only utilized by dentists as additional information during checkup appointments and is otherwise not used.

Vision

The main goal of the system is to use the patient's historic dental information, like previous appointments, x-rays, procedures, medications etc., to predict the optimal dental regime, focusing on the prevention of problems before they occur. Clients will receive personalized recommendations regarding their dental appointments. These recommendations should include appointment intervals, recommended procedures, and additional help from dental care professionals other than the dentist, like dental hygienists or prevention assistants. As the dental expenses are often a limiting factor for going to the dentists, the recommendation should be oriented to be as cost-effective as possible, this includes a long-term cost-analysis of predictive measures, recommendations regarding dental healthcare insurance and a pros and cons analysis of various procedure options. This way, a patient that would otherwise just get standard 6 monthly checkups might now - based on their historical data - get recommended to book an appointment with the dental hygienist after 4 months to prevent potential bigger problems and their attached costs. And conversely, a patient with very good teeth might be recommended by the system to still only do the basic checkups, but every 12 months instead of every 6 months, as this would not lead to problems for this patient. The recommendations are not only made to the patients themselves, but also to the dentists. This way, the dentist also is informed by the system about what procedures to do (e.g. to take x-rays). This also allows for the dentist to disagree and overrule the system, which can then be used as additional data for the system to use in future recommendations.

