Code Layout,Readability,Reusability

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Code Layout:-

This study presents a systematic review of the literature on layout planning in healthcare facilities. The review includes 81 articles from journals, conferences, books, and other documents. Articles were classified in two groups according to their main contents including (i) concepts and guidelines and (ii) techniques and tools to assist in layout planning in healthcare facilities.

Results indicate that a great variety of concepts and tools have been used to solve layout problems in healthcare.

However, healthcare environments such as hospitals can be complex, limiting the ability to obtain optimal layout solutions.

Influential factors may include the flows of patients, staff, materials, and information; layout planning and implementation costs; staff and patients safety and well-being; and environmental contamination, among others.

The articles reviewed discussed and often proposed solutions covering one or more factors. Results helped us to propose future research directions on the subject.

Readability:-

“First, do no harm”: the Hippocratic Oath is one of the most widely known ethical codes.
In order to not only do no harm to their patients, but also provide compassionate and effective care, healthcare professionals need processes that are proven to be reliable and free of errors.

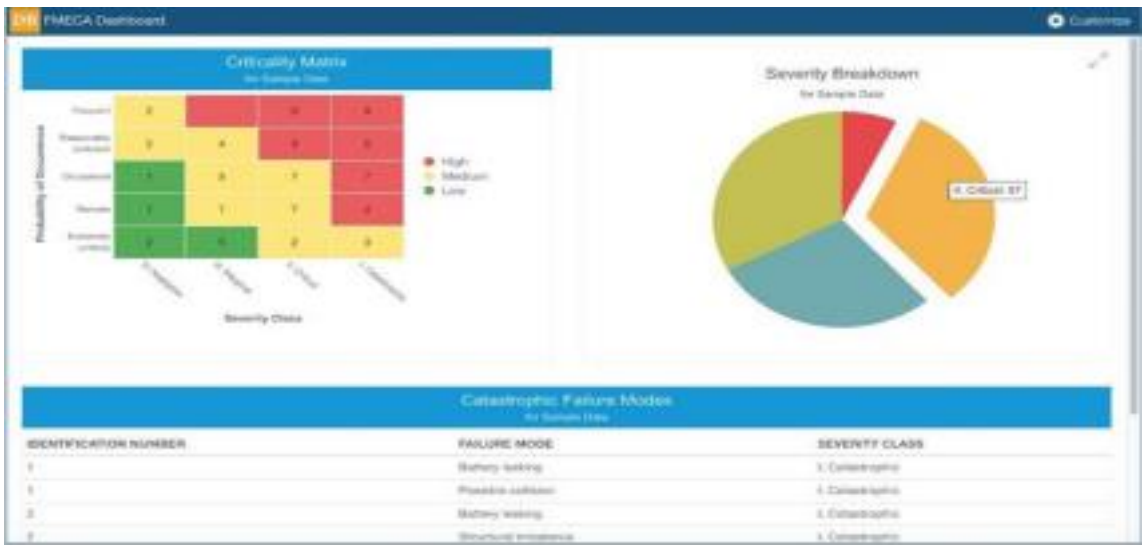
This is where analysis software tools, such as fault tree analysis for healthcare, step in.

Reliability and quality focused software tools enable healthcare professionals to analyze specific products, systems, and processes in order to detect failures, errors, and issues that could compromise the quality of healthcare services — and, as a result, put patients’ lives in danger.

From the initial examination of a patient throughout his or her care to eventual discharge, numerous devices, systems, and processes impact the patient’s condition and help influence the chosen course of treatment.

All of these factors need to be carefully vetted to ensure they have the desired effect and are safe for the patient.

Some examples where reliability analysis can be applied include FMEA to improve quality in emergency department handoff processes, Reliability Prediction to help predict MTBF in ICU equipment, and Fault Tree Analysis to analyze high-risk events in operating theaters.



Reusability:-

Unlike many readability tools, which only examine aspects such as syllables per word, sentence length or word overlap with pre compiled easy word lists, the author-developed health information readability analyzer (HIReA) is built upon previously identified concepts relevant to readability including text features (i.e., number of characters/word, number of sentences/paragraph, number of words/sentence), syntactic aspects (i.e., parts of speech [POS] extracted; POS categories were noun, verb, pronoun, proper noun, particle, article, determiner, symbol, punctuation, possessive, preposition, adverb, and adjective), semantic features (i.e., average term and concept familiarity scores), cohesion (i.e., number of overlapping concepts in adjacent sentences), and white space ratio (the textual density and formatting criteria).

The HIReA outputs a value of −1 (very hard) to 1 (very easy) as a measure of a document's readability, whereas the FKGL strictly provides grade levels.

An earlier stage of development and testing of the HIReA has been detailed previously.

13 Very easy texts (HIReA score of 1) can be understood by people with basic literacy (4th–6th-grade level), and very difficult texts are usually only comprehensible by domain experts.

A dietary supplement leaflet with a HIReA score less than zero (i.e., a negative score) would require the reader to have some college education.

Each DS leaflet was analyzed using the HIReA and the FKGL. Comparisons between professional and patient-targeted leaflets were made, and assessments of each leaflet subsection were also conducted.