Risks of Cancer based on Analytics

High Level Design(HLD)

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**Abstract**

Recent situations on Human beings proves that Many people's lives are cut short due to cancer. However, due to the age of big data we are able to combat this malicious disease.

Our work implementation of the analysis on Risk of Cancer Analysis to find the real location of the patients who are pretending with the features we’ve taking in our dataset or the patients who can also want to cure their Risk of Cancer by watching these analysis.

1. **Introduction**
   1. **Why this High-Level Design Document***?*

*The purpose of this High-Level Design(HLD) Document is to add the necessary detail to the current project description to represent a suitable model for coding. This document is also intended to help detect contradictions prior to coding, and can be used as a reference manual for how the modules interact at a high level.*

* 1. **Scope**

*The HLD documentation presents the structure of the system, such as the database architecture, application architecture(layers).*

*The HLD uses non-technical to mildly-technical terms which should be understandable to the administrators of the system.*

* 1. **Definitions**

*Term Description*

*IDE Integrated Development Envirornment.*

*EDA Exploratory Data Analysis*

1. **General Description**
   1. **Product Perspective**

*The Risk of Cancer is a Analysis based model which will help us to know the necessary actions to decrease the causes of Risks of cancer.*

* 1. **Problem statement**

*In this dataset you will find info about hundreds of cancer patients about their lifestyles.*

* 1. **Proposed Solution**

*The solution proposed here is by plotting the important features for the causes of High risk of cancer.*

* 1. **Further Improvements**

*Risks of Cancer with more use cases like the preventions, the Living conditions, fast response and action with the help of graphs. Showing them the future action based on their lifestyle.*

* 1. **Technical Requirements**

*This document addresses the requirements for detecting the anomalies in the society at the early stages and recommending the necessary and action to avoid the risks in the lifestyle of the patient.*

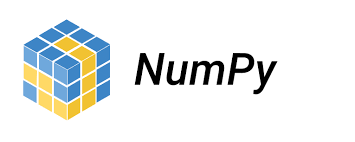
* 1. **Data Requirements**

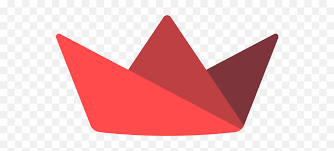
*Data requirement completely depend on our problem statement.*

* *We need atleast 1000 rows of data.*
* *Need to split the data into two halves for training and testing the model.*
* *Need the dataset in .CSV format*.

1. **Tools Used:**

*Python programming langusge and frameworks such as NumPy, Pandas, Scikit-learn, Matplotlib, Seaborn, Steamlit.*

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**4 Initial Step-By-Step Description:**

1. *We take a dataset from kaggle.*
2. *Performing some EDA techniques dropping some features which are not useful.*
3. *Using correlation selecting the features which are useful.*
4. *Using plotter function passing the X-label and Y-label , customizing it with some color pallets, styling the graphs.*
5. *Generating F-Ratio scores of all features and we can determine which ones to use for machine learning.*
6. *Splitting the Data. So, we can train the scaler model to apply an unknown dataset.*

***5 Conclusion***

*The designed Dashboard will show the necessary information about the Risk of cancer based on their lifestyle.*

*And by various features we can decrease the cause of having a High Risk of getting effected by Cancer.*

*By Team-*

*Ahim Bidyud.*