Mansoura University
Faculty of Computers and
Information
Department of Computer Science

PROJECT PROPOSAL

Arabic Title
تصنيف سرطان الثدي

English Title

Breast Cancer Classification

Submitted by:

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PROJECT ABSTRACT:

Breast cancer is the most common type of cancer among women. A mass of cells called a tumor forms. The tumor can be malignant or benign. Breast cancer is a heterogeneous disease, and it is known that it begins as a localized lesion in the breast, then gradually spreads, progressing to invasive cancer that attacks the lymph nodes. A positive family history increases the risk of breast cancer in first-line relatives. Breast cancer is the second highest mortality rate among women after lung cancer

PROJECT OBJECTIVES:

This project was started with the aim of using machine learning algorithms and learning how to improve tuning parameters . we will take the dataset of previous breast cancer patients and trained the model to predict whether the cancer was benign or malignant. These predictions will help doctors .we will choose the best cancer prediction model, the accuracy of all models will be estimated

WHO ARE THE PROJECT **COMPETITIVE?** AND HOW WILL YOUR PROJECT BE **DIFFERENT?**

Competitors:

Nahid, A.-A., & Kong, Y. (2017). Involvement of machine learning for breast cancer image classification: a survey. Computational and Mathematical Methods in Medicine,.

Kumar, G., & others. (2019). Breast Cancer Detection Using Decision Tree, Naïve Bayes, KNN and SVM Classifiers.

Society, A. C. (2020). Breast Cancer Early Detection and Diagnosis. Retrieved July 11, 2020.

Difference:

the project will give the best accuracy of 95.0%. To provide an easy-to-use interface to doctors ,we will develop an app that will take the data and display the output with accuracy and time taken to predict.

TOOLS, HARDWARE AND SOFTWARE RESOURCES:

Tools :-

 ML Algorithm , Logical Regression , Sklearn , Numpy , Pandas

Software:-

Android studio , PyCharm

Hardware:-

SCHEDULING PHASES:

From	To	Activity

REFERENCES:

https://www.researchgate.net/publication/338477337_Predictive_Analysis_Of_Brea

https://archive.ics.uci.edu/ml/datasets/breast+cancer+wisconsin+%28original%29

http://www.nature.com/articles/srep27327

https://www.kaggle.com/nasrulhakim86/breast-cancer-histopathology-images-classification

https://www.sciencedirect.com/science/article/pii/S2667102621000887#:~:text=Machine%20learning%20(ML)%20is%20one,by%20analysing%20the%20tumour%20size.