ABDUL WALI KHAN UNIVERSITY MARDAN
PROFORMA FOR PROJECT PROPOSALS
OF AFFILIATED COLLEGES
(*for undergraduate degree programs*)

Department Computer Science

Govt Degree College (Boys) Takht Bhai (Mardan)

Semester: 7th

GENERAL INFORMATION

Student-1 Name: Iqrar Ul Hassan	**Reg #: 21-AU-TBM-163**
Student-2 Name: Uzair khan	**Reg #: 21-AU-TBM-212**
Student-3 Name: Muhammad Uzair	**Reg #: 21-AU-TBM-171**
Supervisor Name: Dr. Tahir Hussain	**Designation: Assistant Professor**
Co-Supervisor Name: Muhammad Shakeel	**Designation: Assistant Professor**

Project Title: Detection Breast Cancer Using Machine Learning

PROJECT ABSTRACT

This project aims to develop an efficient breast cancer detection system using Python and various machine learning libraries such as Scikit-Learn (sklearn), Numpy, Pandas, and visualization tools like Matplotlib. The primary goal is to classify breast cancer as malignant or benign based on diagnostic data. The proposed system involves data preprocessing, feature selection, model training, and evaluation using algorithms like Support Vector Machines (SVM), Random Forest, and Logistic Regression. The project further integrates the trained model into a web application using Flask, providing a user-friendly interface developed with HTML and CSS. This interface will allow users to input diagnostic data and receive real-time predictions, making it a valuable tool for early detection and improving patient outcomes.

A.   **PROJECT REQUIREMENTS**:
Programming Languages: Python, HTML, CSS

Libraries/Frameworks:
Python Libraries: Scikit-Learn, Numpy, Pandas, Matplotlib
Web Framework: Flask

Tools/Technologies:

IDE for Development (anaconda, pycharm, Visual Studio Code)

Browser for testing the web interface

Data Source: Access to breast cancer datasets (kaggle)

Documentation Tools: Microsoft Word

B.   **PROJECT PHASES** (METHODOLOGY)
1.   Data Collection and Preprocessing:
2.   Model Training
3.   Model Integration with Flask
4.   Web Interface Development
5.   Testing and Evaluation
6.   Deployment
7.   Maintenance and Updates

Recommendation and Approval Process:
The title, supervisor, co-supervisor and abstract are recommended in the meeting attended by two internal faculty members in the relevant department, one external expert from the concerned department of the AWKUM

Faculty member-1 Name   **Dr. Tahir Hussain**   Signature_____

Faculty member-2 Name   **Muhammad Shakeel**   Signature_____

External Expert (AWKUM): Dr._____ Signature_____

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Approval by Dean_____(approved/Not-Approved)

Notification by the Director Academics if approved