

## **FINAL YEAR PROJECT**

### **Title Change Requisition Form:**

Note: (i) Title change has to be approved by the supervisor and FYP Committee (ii) Students cannot change the title during FYP2 (under normal circumstances).

**Student ID: 122130338**

**Student Name: MUHAMMAD HAZIQ BIN ZAIRUL AZWAN**

**Project ID:** FYP01-DS-T2430-0193

**Student and Project Specialisation (Note: Student and Project Specialisation should match)**  
**(Select one)**

Data Science

**Approved project Title:**

FYP01-DS-T2430-0193

**New Project Title:**

PREDICTING THE PROGRESSION OF HIV TO AIDS USING MACHINE LEARNING

**Justification for Changing the Title (Give specific reasons, after consultation with your supervisor)**

Firstly the old title was vague making the process of understanding the scope and objective harder. After consultation with my supervisor, Dr V Vijayakumar we agreed the title needed to be more specific and goal oriented. The updated new title would be more clear and interesting to execute. The new title we have chosen will ensure clarity and improve project outcomes.

**Project Type: Application-based/Research-based / Application and Research Based (if there is any change, indicate)**

Research-Based

**Project Description: (Note: If there is no change, state 'NIL', Highlight the change, if any)**

This project aims to utilize and evaluate machine learning techniques to predict the progression of HIV to AIDS. The research will involve datasets which reflect key important factors that will be explored in the research project. The goal is to identify HIV patients who are at risk of developing to later stages of HIV infection especially AIDS which is a deadly disease with high mortality rate. This project aims to help making early interventions to assist healthcare and affected individuals.

**Project Objectives: (Note: If there is no change, state 'NIL', Highlight the change, if any)**

Firstly is to develop various predictive model. By assessing different machine learning techniques and evaluation, this research aims to find the best machine learning technique to work on the dataset. Secondly is to assess the accuracy of the prediction in real-world setting . The predictive model should work on different datasets future or present to enable practical usage in healthcare world. Secondly is to explore new and existing methods to explore data in healthcare settings.

**Project Scope (Note: If there is no change, state 'NIL', Highlight the change, if any)**

This project will focus on clinical data obtained from HIV positive patients sourced from NYC Health. Hence certain features may not be suitable for local settings as the data reflects the people of New York. This project will focus developing predictive model using Python. The process of developing will happen in VSCode with the help of an extension called JupyterLab.

**Number of Students in the project (Select one):**

One

**Two Student Project Details:**

**Student 1 Subtitle (Note: If there is no change, state 'NIL')**

NIL

**Student 1 Work Distribution (Note: If there is no change, state 'NIL', Highlight the change, if any)**

NIL

**Student 2 Subtitle (Note: If there is no change, state 'NIL')**

**NIL**

**Student 2 Work Distribution (Note: If there is no change, state 'NIL', Highlight the change, if any)**

**NIL**

**Recommendation from the Supervisor:**

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**Comments from the Moderator (Not applicable during FYP1):**

**Received by the FYP Committee on**

**Comments from FYP Committee:**