



COMBATING CRYPTOJACKING THROUGH MACHINE LEARNING

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INTRODUCTION

The practice of "crypto jacking" entails taking control of a computer to mine crypto currencies against the user's wishes, through websites, or when the user is unaware.





WIREFRAMES

Login

Msg

Email

Password

Log In

Don't Have An Account? Register One

Register

Hello

Name

Email

Password

Register

Already Have An Account ? Log In Here

CRYPTOJACKING

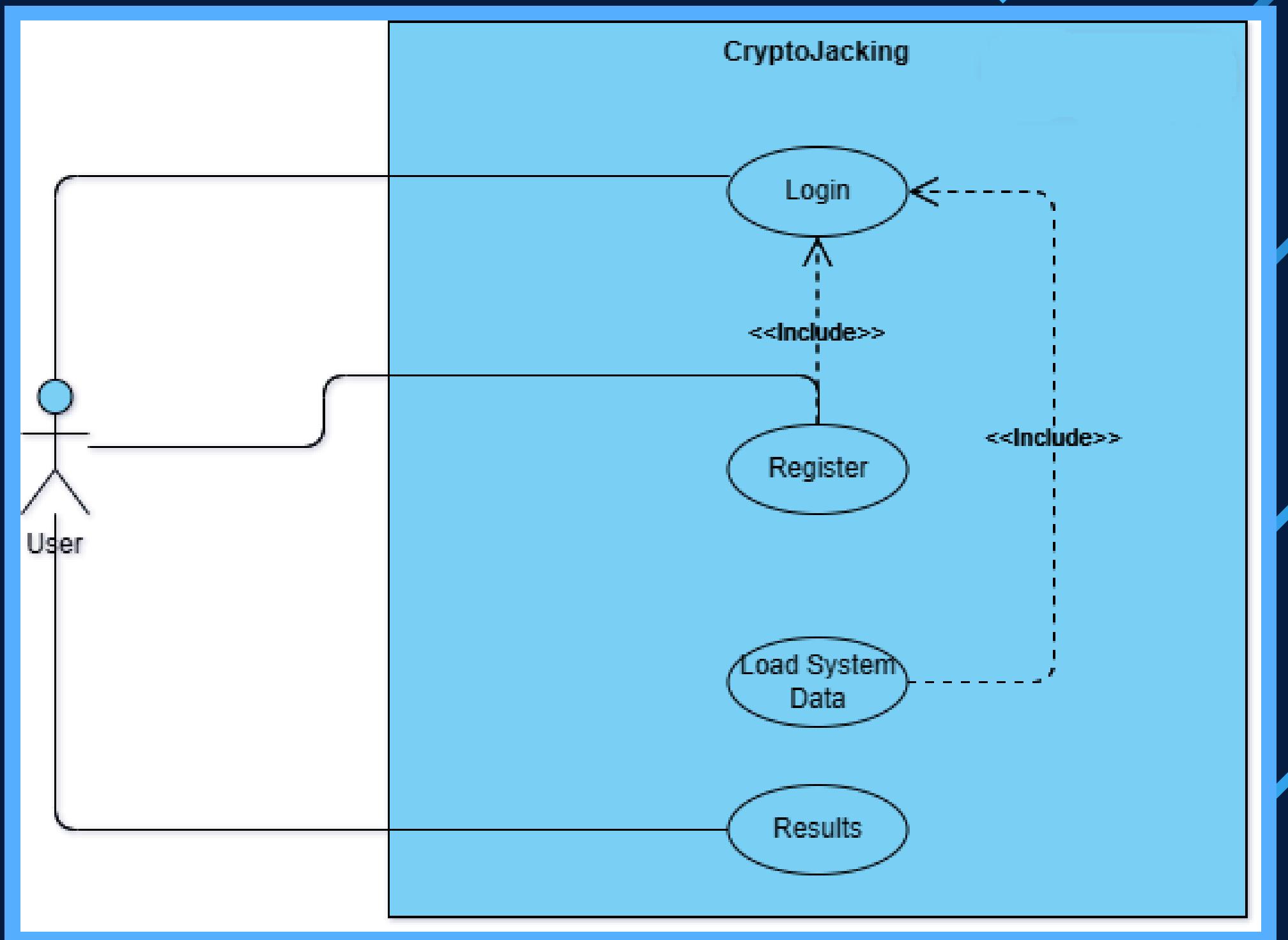
Upload your csv file

LogOut

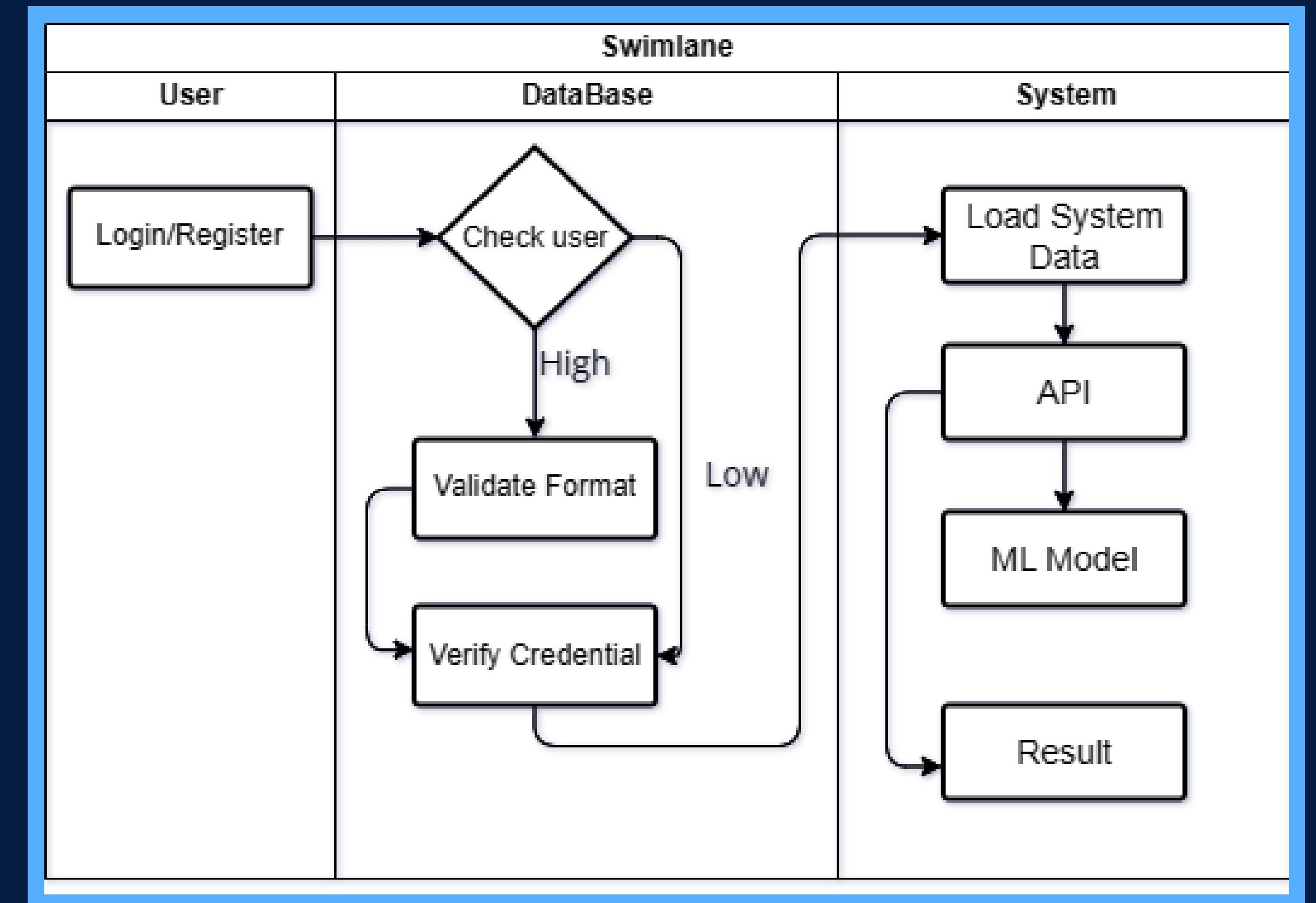
Previous Results

The background of the wireframe shows a person's hands typing on a laptop keyboard. The entire scene is overlaid with a repeating watermark-like pattern of the word "CRYPTOJACKING" in various colors (red, green, blue) and sizes. A large white arrow points from the bottom left towards the "Previous Results" button.

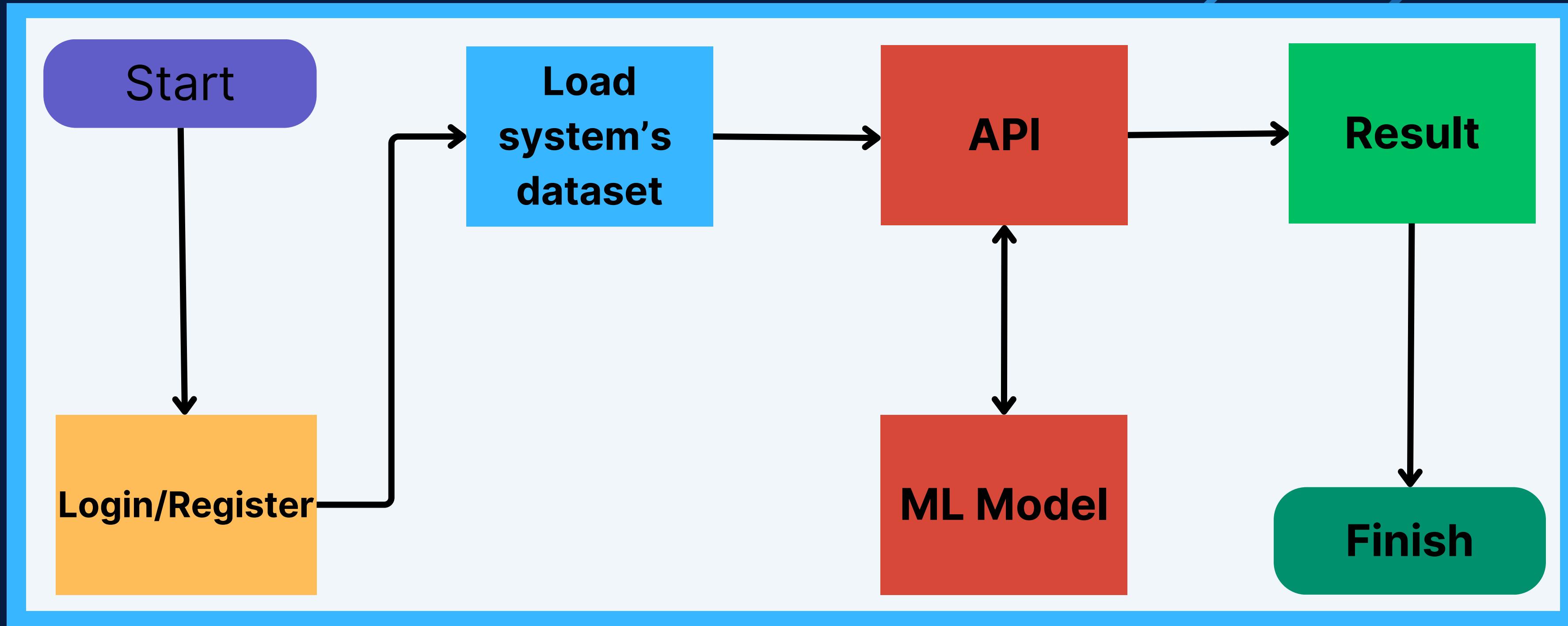
USE CASE



SWIMLANE



PROPOSED SYSTEM





VARIABLE DEFINITIONS

I/O Data Operations

Speed at which the process is issuing read and write I/O operations

I/O Data Bytes

Speed at which the process is reading and writing bytes in I/O operations

Number of subprocesses

Number of sub-processes that are currently active in a parent process

Time on processor

The total time, in seconds, that a process has been running

Disk Reading/sec

Speed of disk reading operations



VARIABLE DEFINITIONS

Disc Writing/sec

Speed of writing operations to disk

Received Bytes
(HTTP)

Speed of bytes arriving to the browser's HTTP responses

Network packets
sent

Speed of sending packets in the TCP protocol

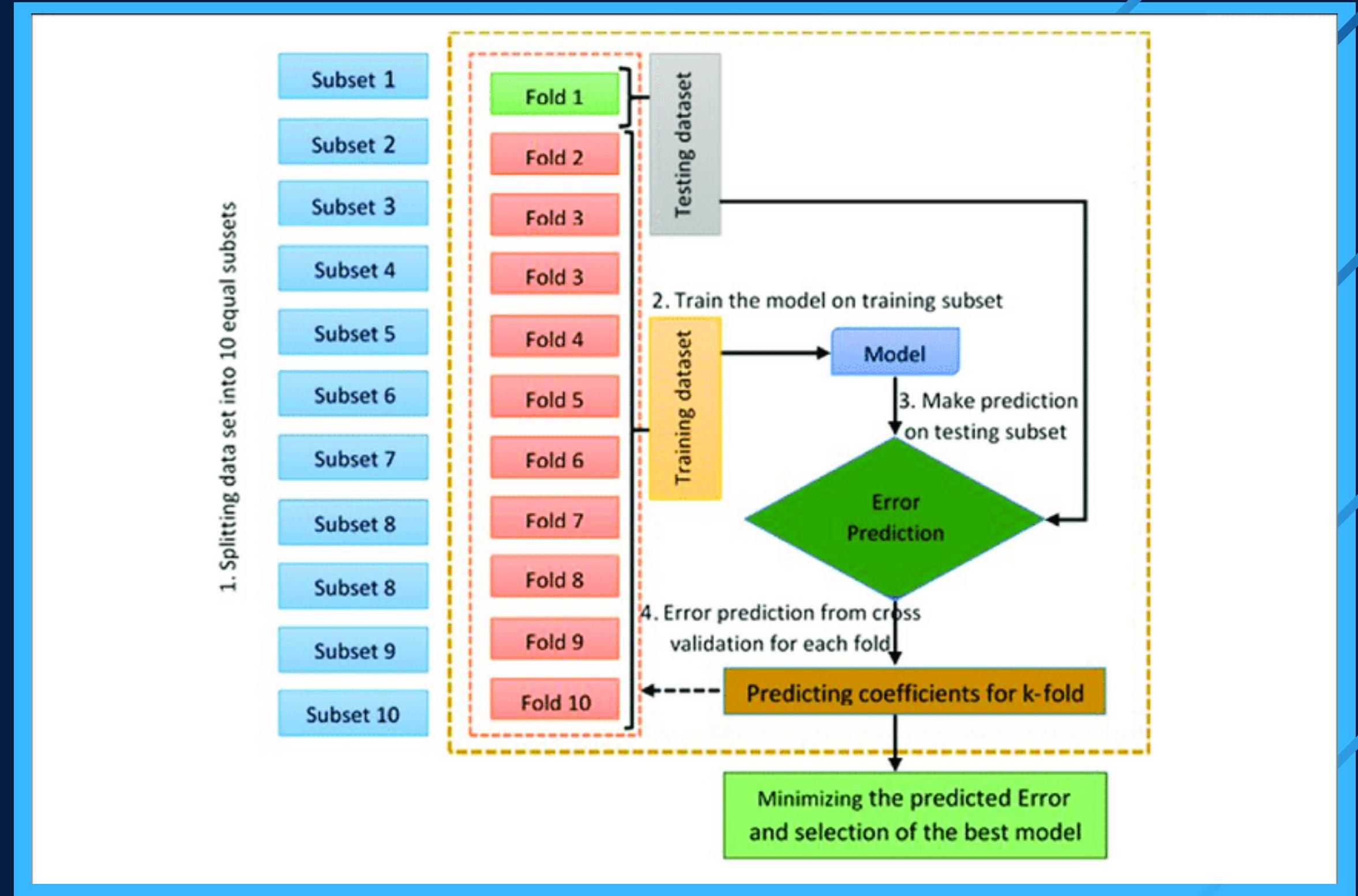
Network packets
received

Packet reception speed over the TCP protocol

Page Errors/sec

This is the average number of pages with faults per second

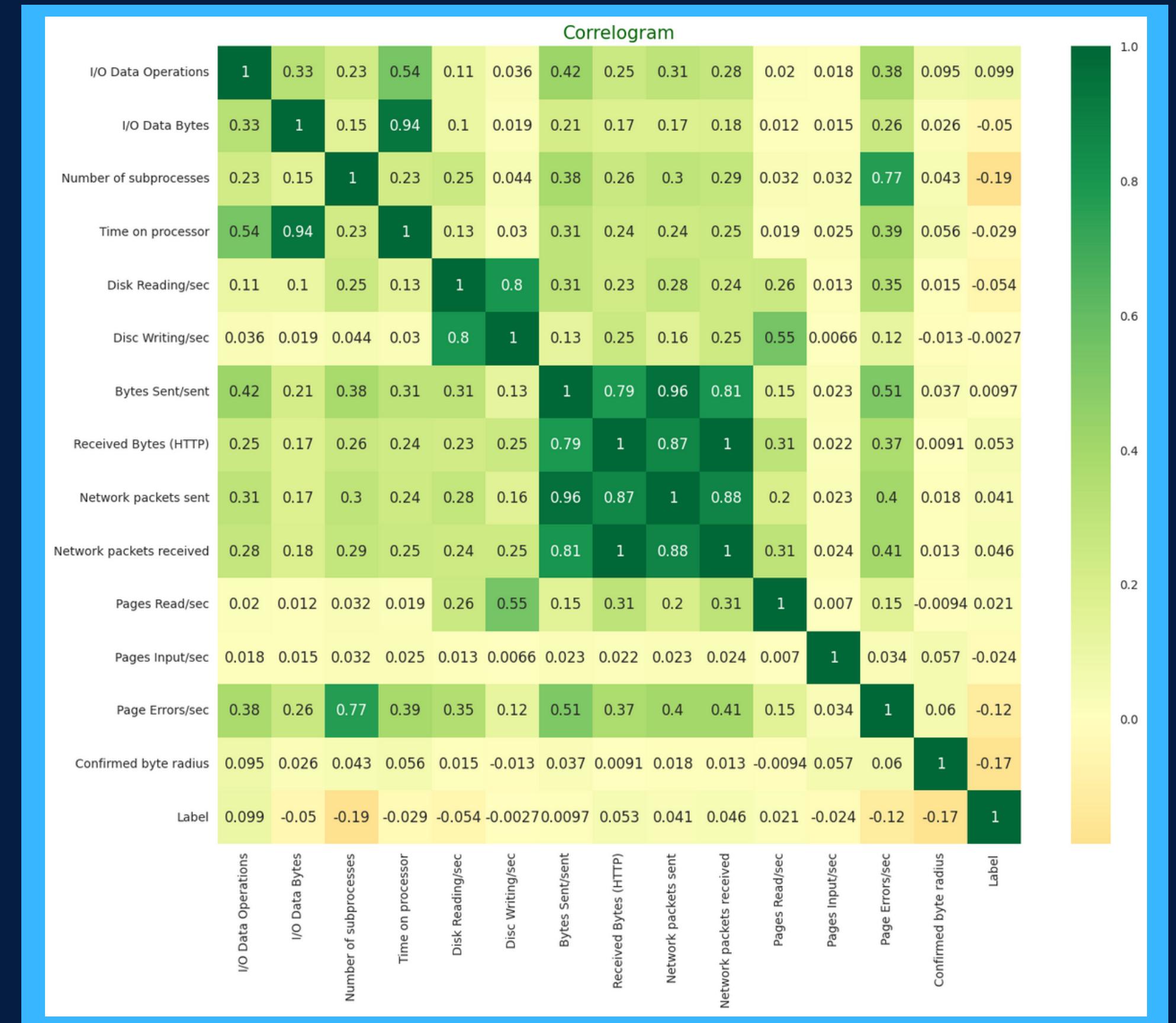
ALGORITHM DIAGRAM



K-fold cross validation

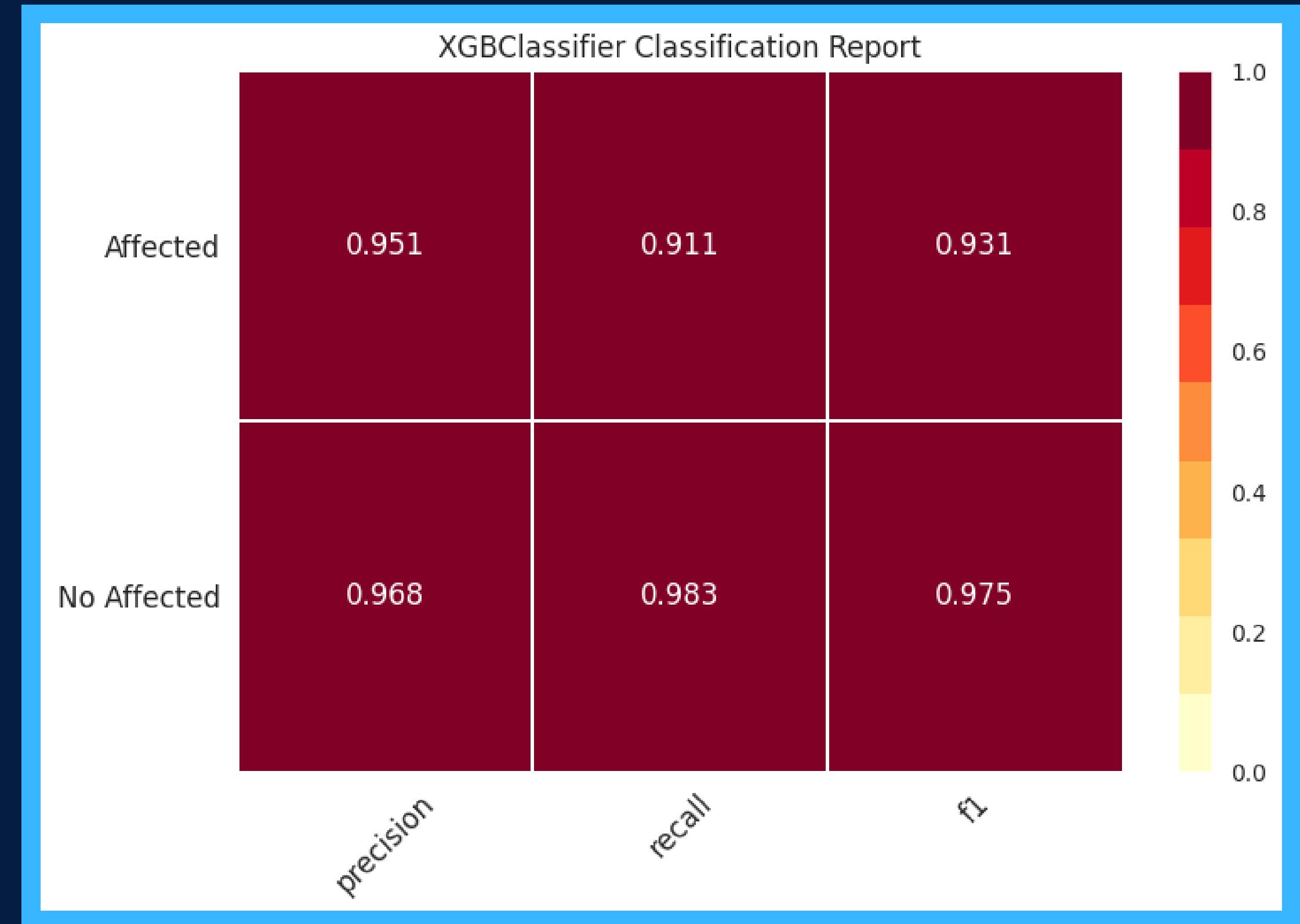


CORRELATIONS



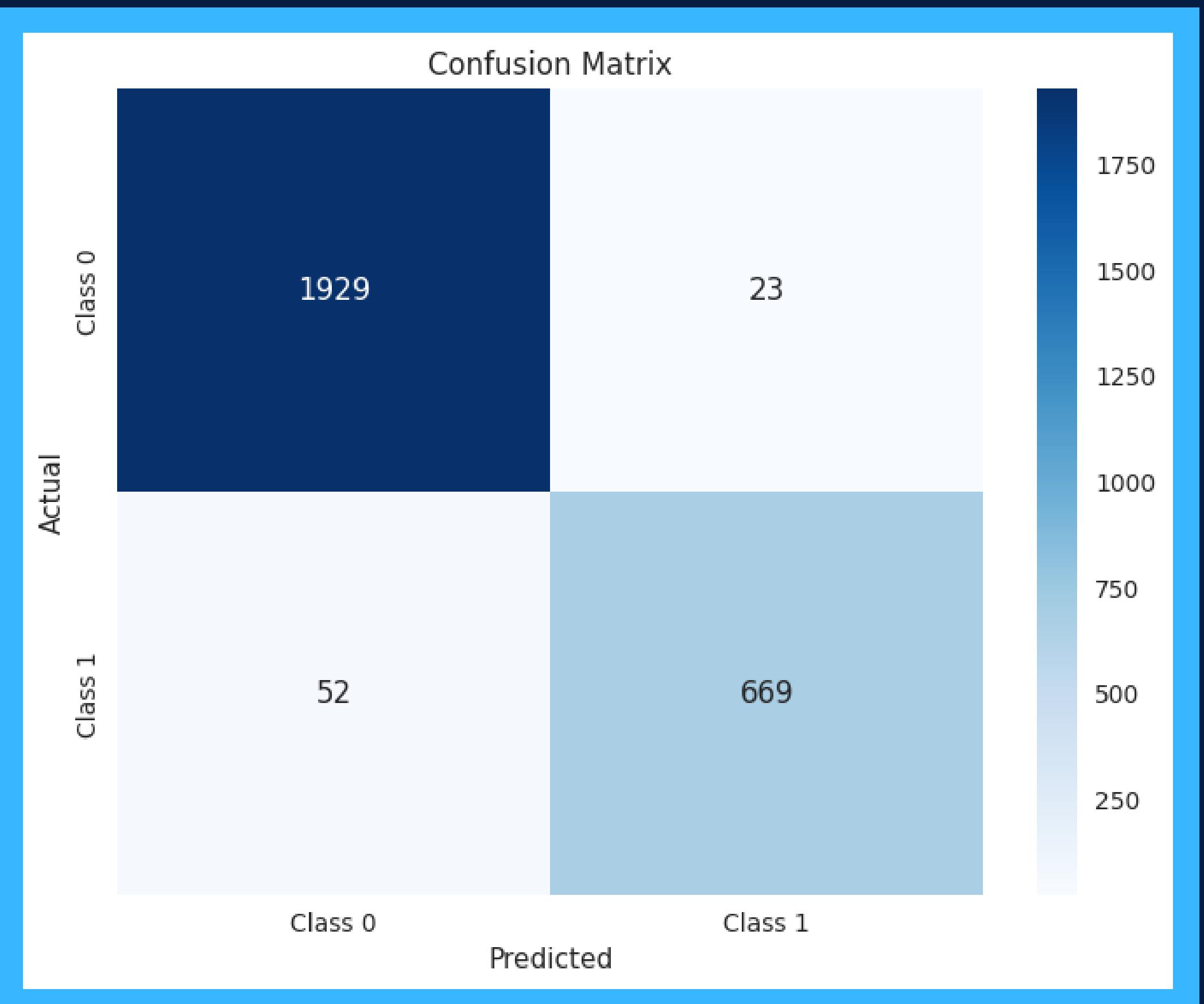


XGB CLASSIFIER





ACCURACY





TEAM WORK

Affan Khan:

Documentation

Diagrams

Istafa Malik:

Presentation

Programming

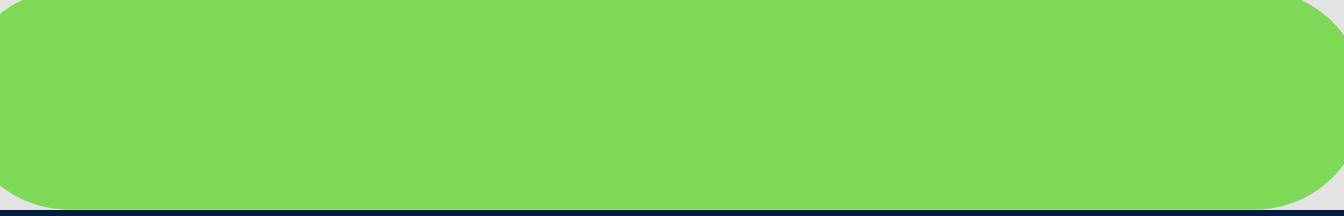
Rana Rehan Qaisar:

Presentation

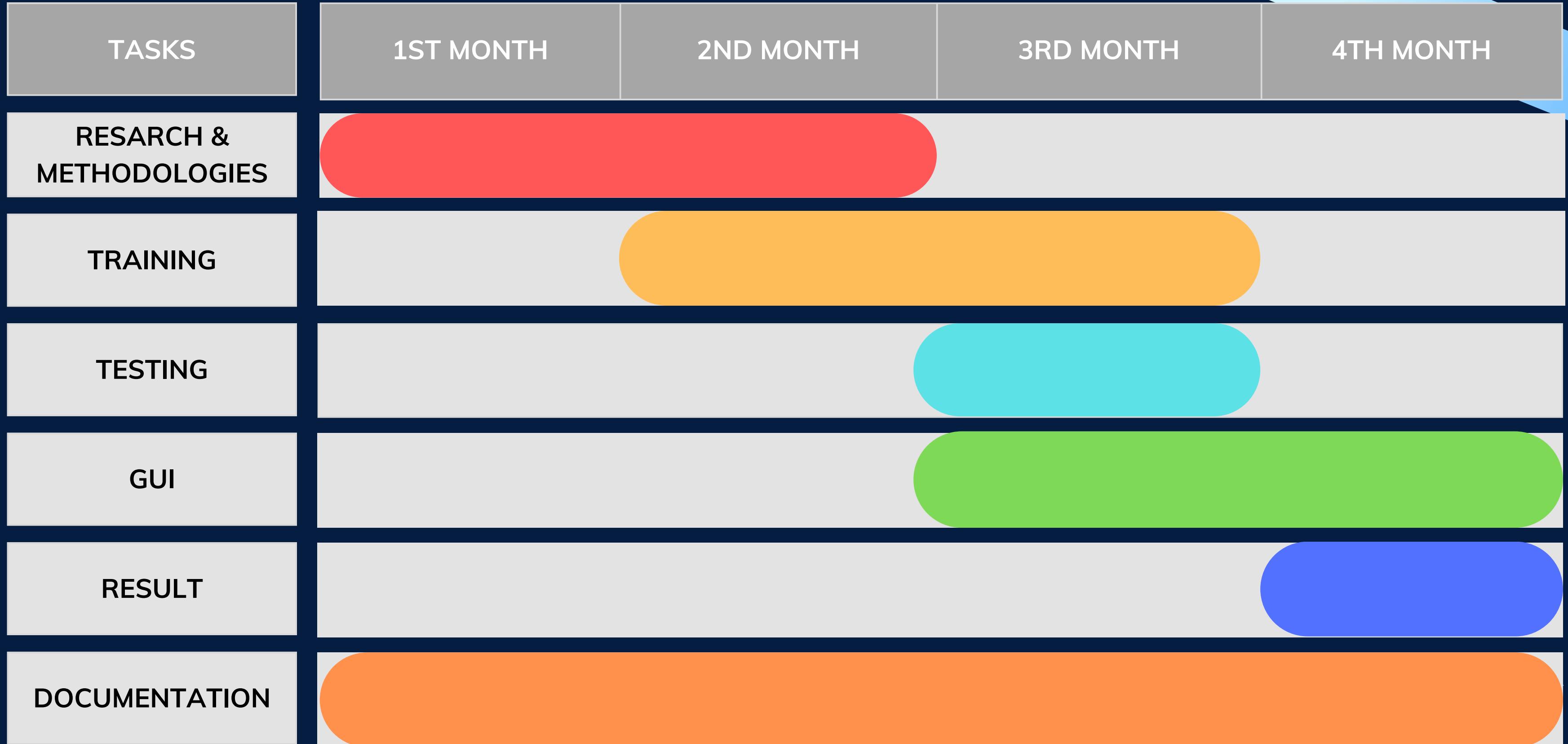
Coding



TIMELINE FOR FYP-1

TASKS	1ST MONTH	2ND MONTH	3RD MONTH	4TH MONTH
LITERATURE REVIEW				
PROPOSAL				
DATA SET				
PREPROCESSING				
COMPARISON				
DOCUMENTATION				

TIMELINE FOR FYP-2





REFRENCES

[1]https://github.com/Quaglia98/Rypto/blob/main/Code/network_analysis/src/main.rs

[2]<https://www.kaggle.com/datasets/keshanijayasinghe/cryptojacking-attack-timeseries-dataset>

[3]<https://machinelearningmastery.com/k-fold-cross-validation/>

[4]<https://www.datacamp.com/tutorial/xgboost-in-python>