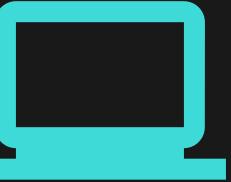




MINI PROJECT

Diabetes Eyes Care

DIABETIC RETINOPATHY INFO



Supervisor

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Team Members:

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3.Raghul. M

4.Praveen Kumar.S

Introduction:

This website that provides information about the severity of diabetic retinopathy in presentation is a valuable resource for individuals who have diabetes and are at risk of developing retinopathy. By providing detailed information about the different stages of diabetic retinopathy. This website can help people understand the potential risks and complications associated with this condition.

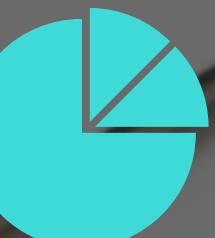
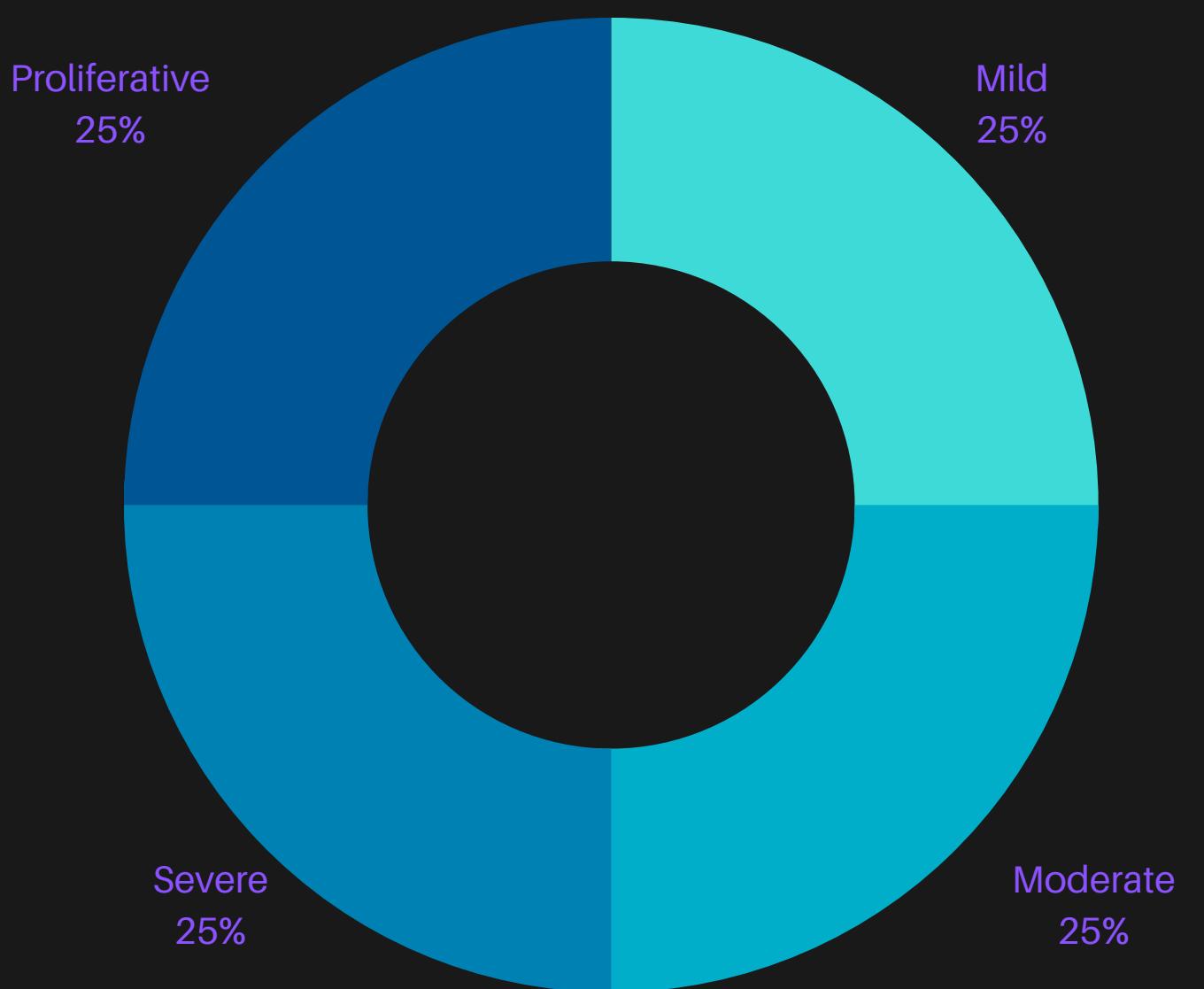


Diabetic retinopathy:



SIMPLE EXPLANATION:

- A 10x10 grid of cyan dots on a black background.



severity stages of diabetic retinopathy

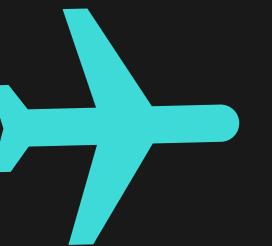
1.mild

2.moderate

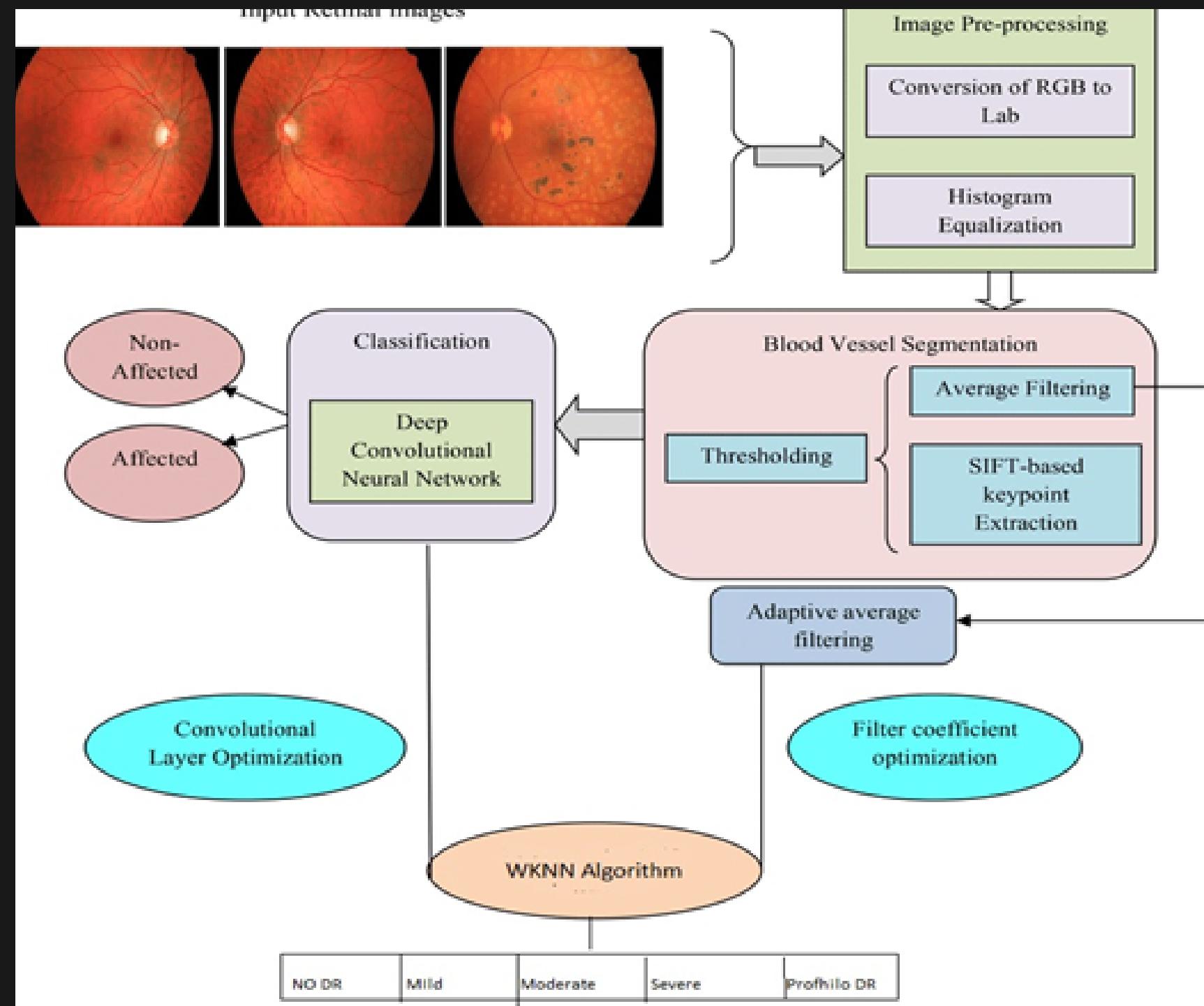
3.severe

4.proliferative

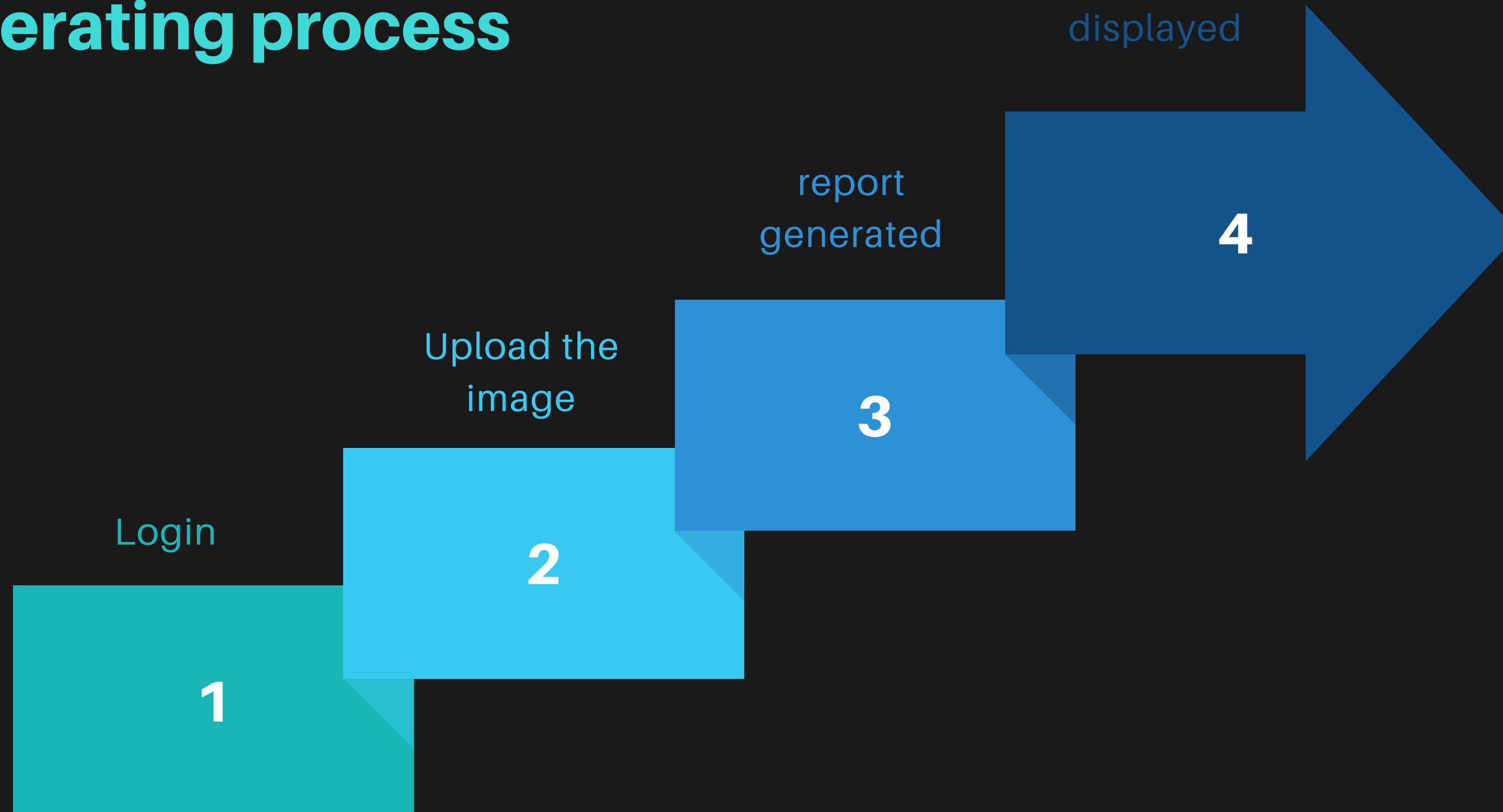
python libraries used:



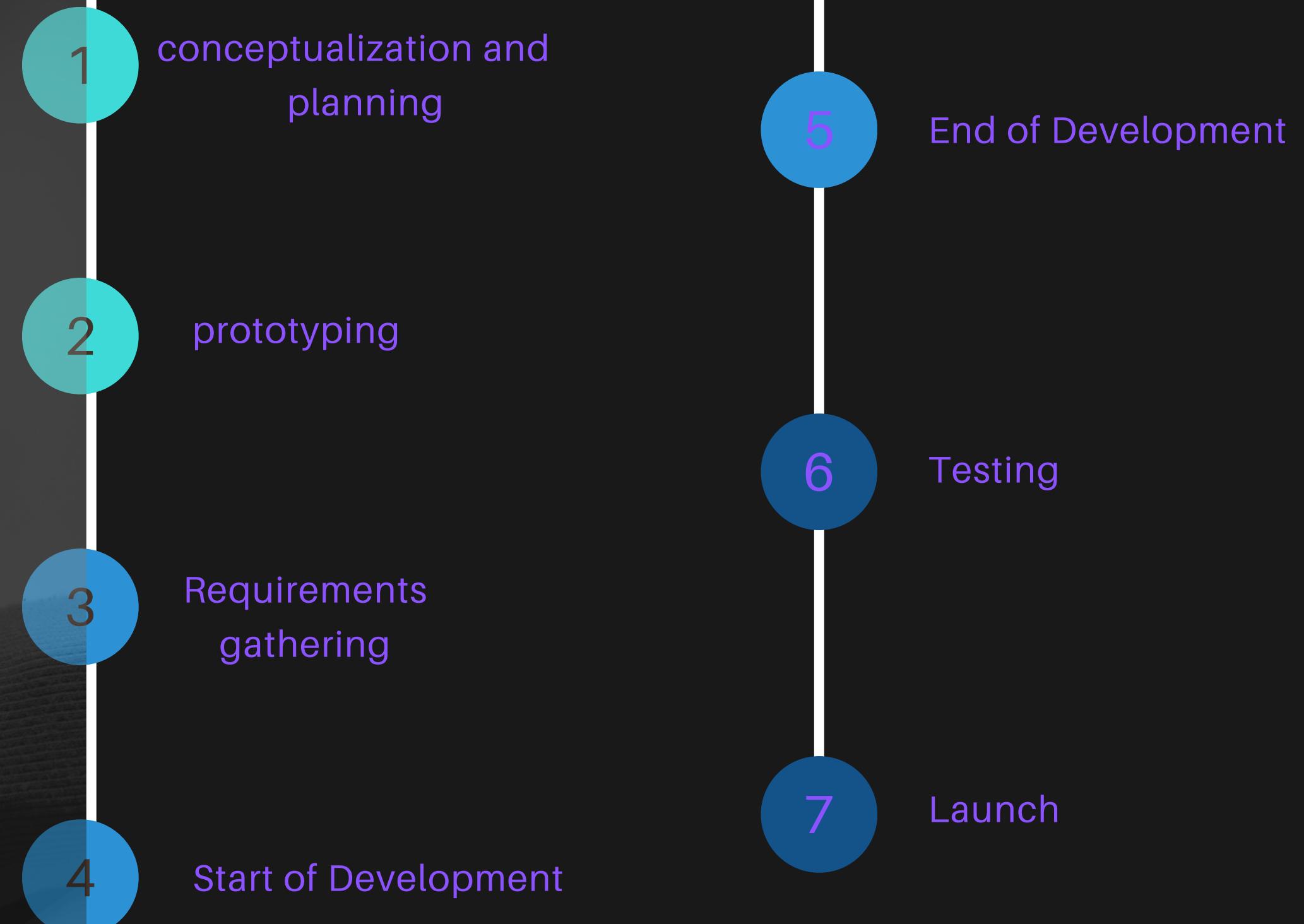
Architecture:

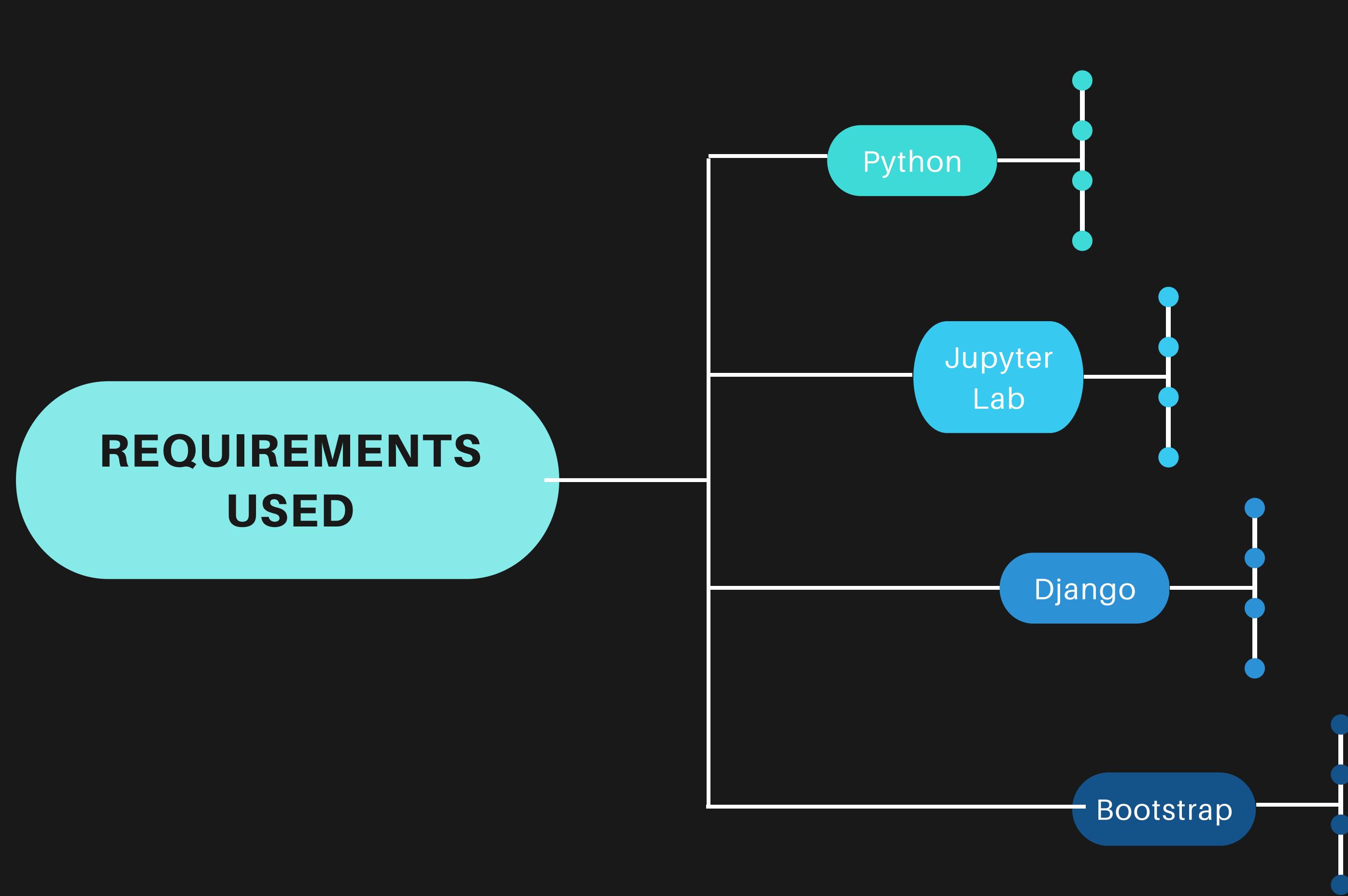


4-step report generating process



Development Process





ALGORITHMS

Step by Step

1

RGB2GRAY

2

HOG(Histogram
Oriented Gradient)



5

KNN and MLP
classification

4

SVM (Support
Vector Machine)

3

DOG (DIfference of
Gaussian)



SCREENS...

Deep Ratinopathy Detection

File1: No file selected.

SCREENS...



The screenshot shows a web browser window with a dark theme. At the top, there is a navigation bar with several course links: "Getting Started", "OOPS - Course", "My Courses", "Watch Latest Movies ...", "Installation — Django...", "Acer Nitro 5 Gaming L...", "psp game developme...", "(1) JavaScript Fighting...", "IBM", "A Quick Guide to Bivar...", and "Multivariate Analysis ...". Below the navigation bar, the main content area displays the text "Result For the Given Input" and "Result For the Given Image : Proliferative DR". A black button labeled "Print the Report" is visible at the bottom left of the content area.

Result For the Given Input

Result For the Given Image : Proliferative DR

Print the Report



SCREENS...

The screenshot shows a web browser window with a single tab open. The tab title is "1 of 1". The page content is an email message:

Vinod and Co

Dear Ganesh,

Retinopathy is a condition that affects the retina, which is the part of the eye that detects light and sends signals to the brain to create visual images. Retinopathy can be caused by a variety of underlying conditions, such as diabetes, high blood pressure, or certain genetic disorders.

Proliferative DR

Best regards,
Ganeshkumar M
Vinod and Co

The browser interface includes a toolbar with various icons and a zoom control labeled "Automatic Zoom".



Conclusion...

Overall, the website can serve as a valuable educational tool for people with diabetes and their families, helping them to better understand the risks and potential complications associated with diabetic retinopathy, and to take proactive steps to protect their eye health.

References:

1. Dutta MK, ParthaSarathi M, Ganguly S, Ganguly S, Srivastava K, "An efficient image processing-based technique for comprehensive detection and grading of non-proliferative diabetic retinopathy from fundus images", **2017**, Comput Methods Biomech Biomed Eng Imaging Vis **5(3):195-207**
2. V. Kumar, T. Lal, P. Dhuliya, and Diwaker Pant, "A study and comparison of different image segmentation algorithms", In Advances in Computing, Communication, & Automation (ICACCA)(Fall), International Conference on, IEEE **2016**, pp. **1-6**
3. R. Radha, and S. Jeyalakshmi, "An effective algorithm for edges and veins detection in leaf images", In Computing and Communication Technologies (WCCCT), **2014** World Congress on, IEEE **2014**, pp. **128-131**

Thank you...