

# Face Recognition Login System

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# Introduction:



Facial recognition is a way of identifying or confirming an individual's identity using their face. Facial recognition systems can be used to identify people in photos.



Facial recognition is a category of biometric security, Other forms of biometric software include eye retina or iris recognition.



# OBJECTIVE

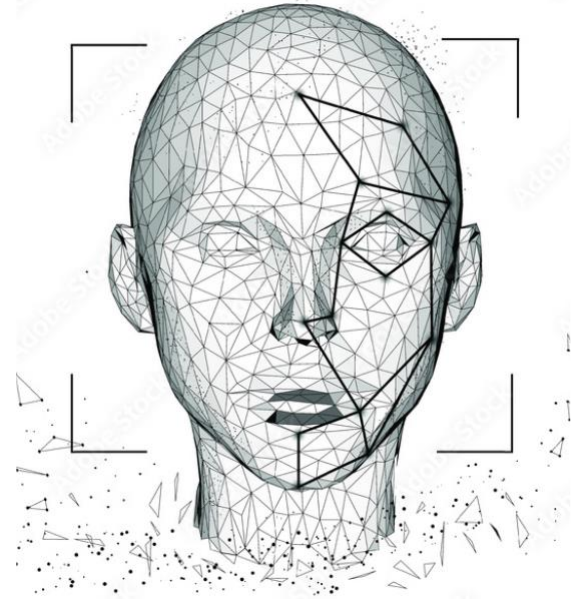
The **goal** of this project was to identify the main points of the face, including the points :

- around the eyes
- nose and mouth

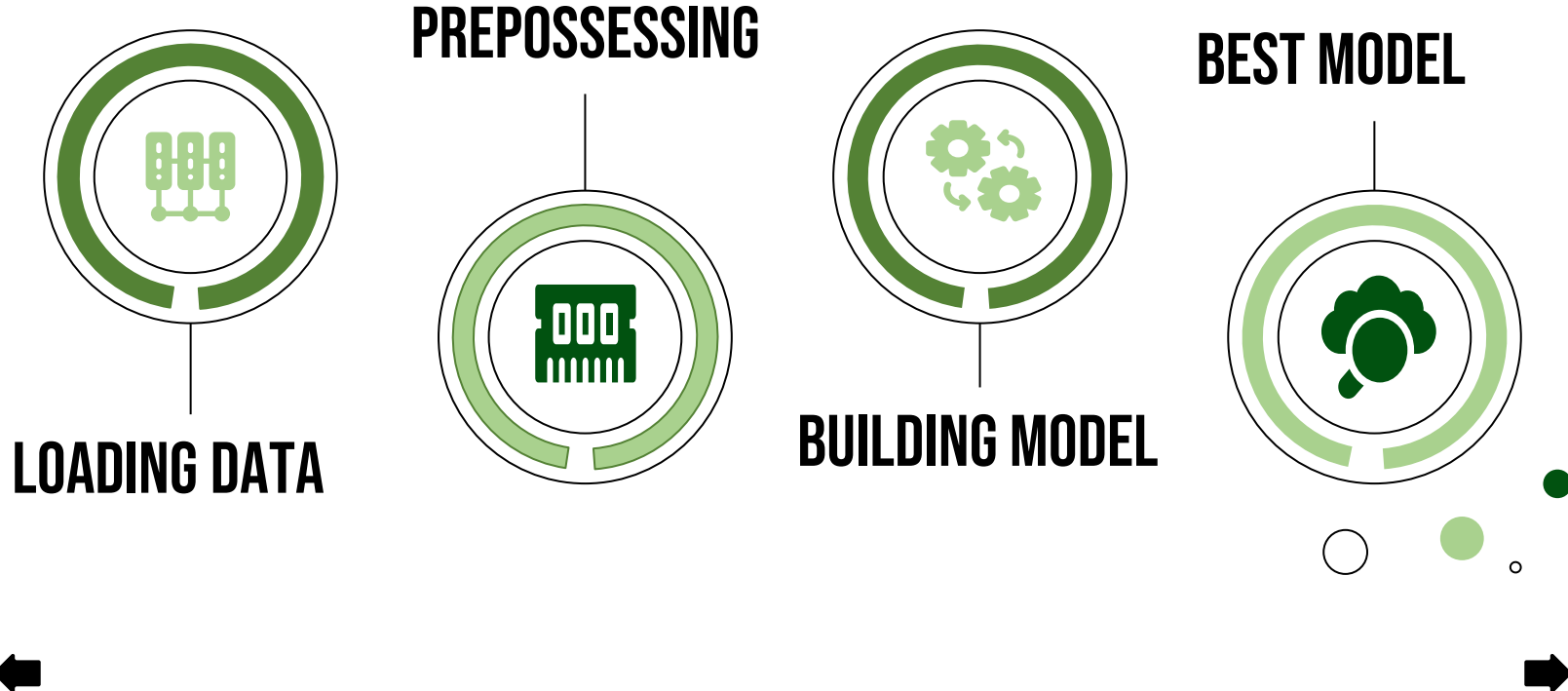
to be used identify or verify the identity of an individual using his face in the Absher system to facilitate the entry process.

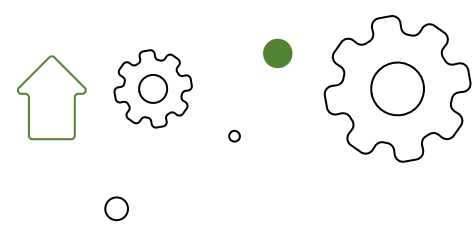
## Data Description

The data is obtained form Face recognition login system dataset in Kaggle has **7049** images

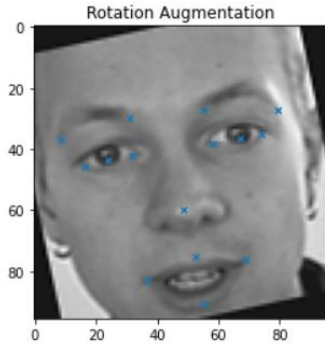


# METHODOLOGIES

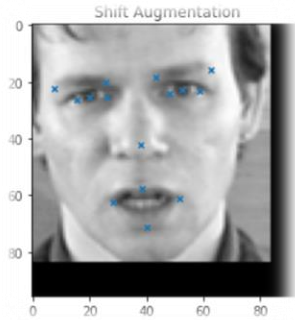




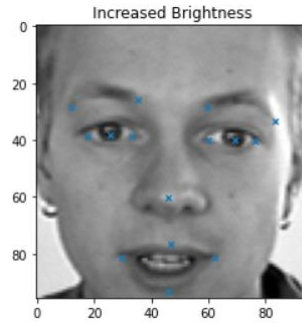
# Augmentation



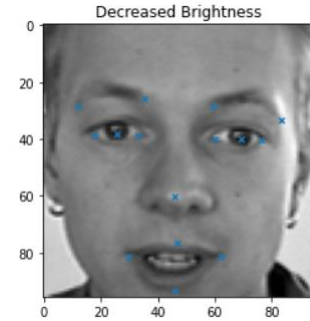
Rotation  
Augmentation



Shift Augmentation



Increased  
Brightness



Decreased  
Brightness

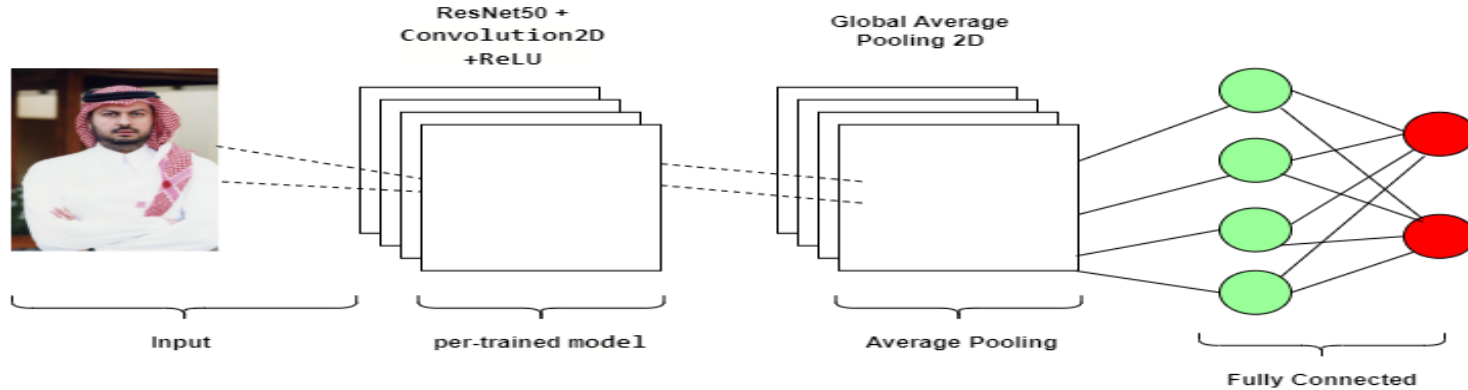


# Modeling

Base model



## ResNet50 Modeling



**ACCURACY**

0.96

**VALIDATION ACCURACY**

0.89

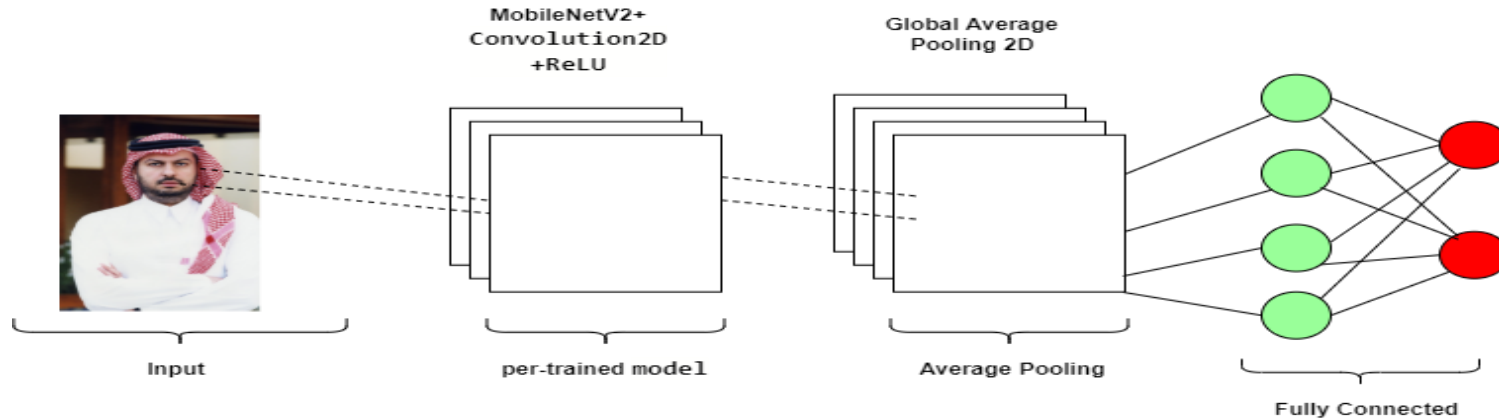


# Modeling

Our Best Models



## MobileNetV2 Modeling



**ACCURACY**

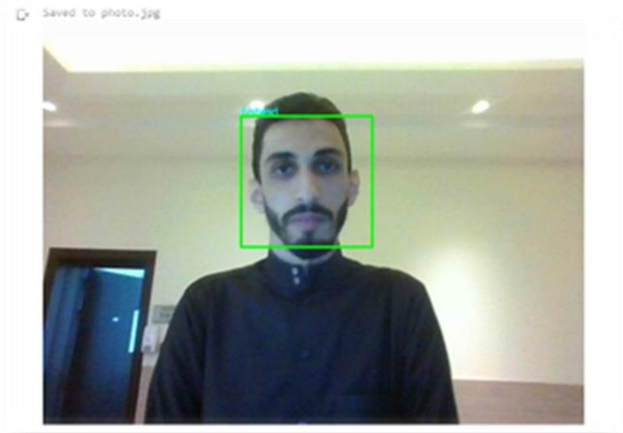
0.92

**VALIDATION ACCURACY**

0.92



# Deployment





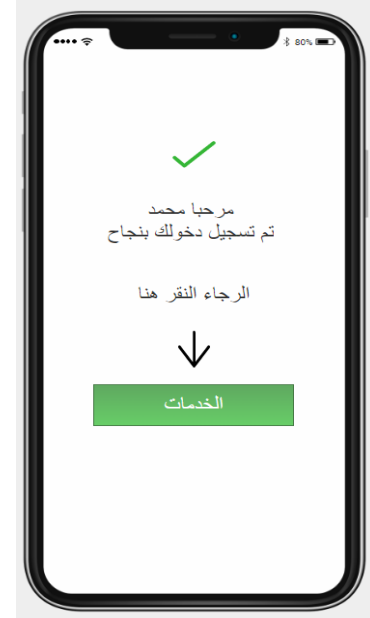
# Interface



مستخدم جديد



تسجيل الدخول



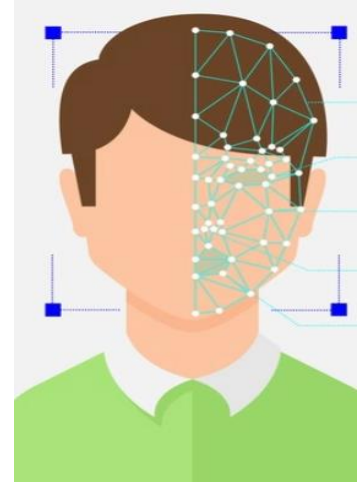
# CONCLUSION



The Base model show overfitting between accuracy and Validation accuracy



The MobileNetv2 shows best result in the Validation accuracy



# Future Work



Collect more images of niqabs.



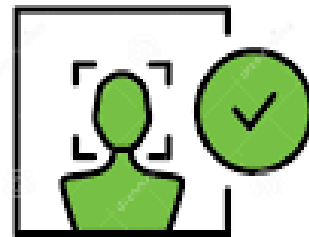
Do more models by try different number of units and layers change the values of the hyperparameter.





# THANK YOU

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**FACE ID APPROVED**