Documentation for AI model

Introduction :

The purpose of the model is to make it easier for the user to know the type of skin disease and to temporarily reassure himself until he goes to the specialist doctor and takes the appropriate treatment. What the model does is take a picture of the user to know the type of skin disease and show its type and percentage. This is to facilitate the service for the user and benefit from artificial intelligence technology.

The aim of the model :

The aim of the model is to know the type of skin disease and determine its percentage until going to a specialist for treatment.

Model design:

Artificial intelligence techniques were used

(CNN neural network (classification)

Tools used :

-Using the Python language,

-using machine learning

-deep learning,

-computer vision,

and using artificial intelligence libraries that help build the model to get the best possible result

Data collection :

Collect dataset with 30 MB:

divided into three parts

- part for training

- part of the testing

-part of the vaildation

and each part of them contains three different diseases including :

1-melanoma

2-nevus

3-scborrhic keratosis

Each diseases contains a group of images to be used in giving the best possible result .

Train Model :

-import libraries

-Data Exploration and Visualization

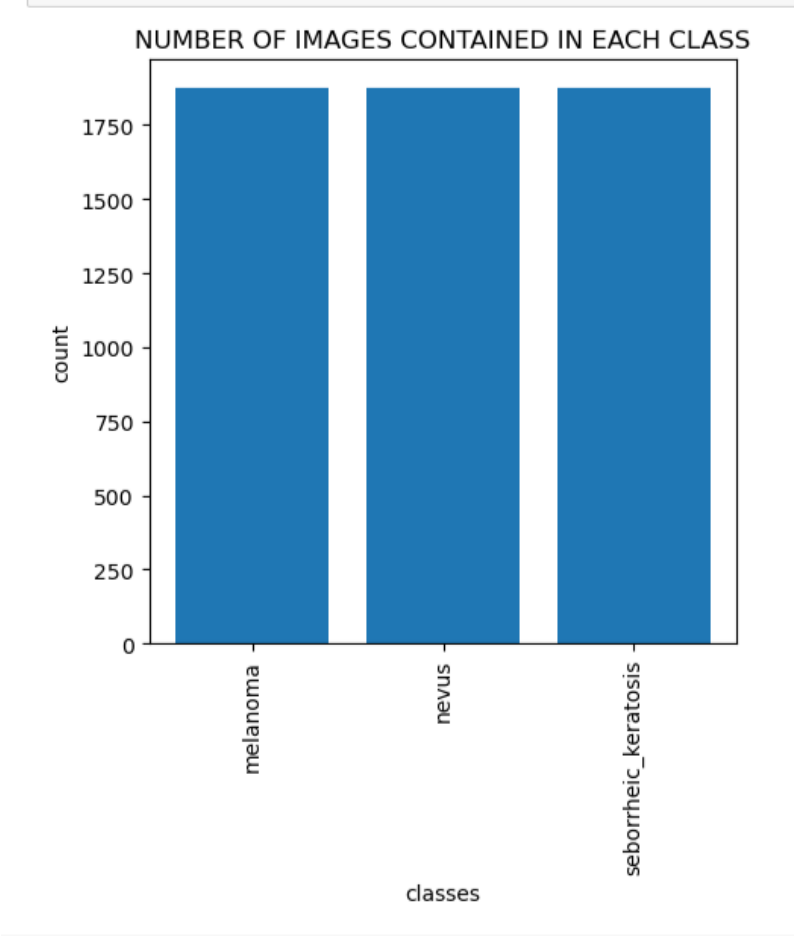
-Data Preprocessing

-Data Augmentation using Albumentations

-Model Building

-Model Compilation

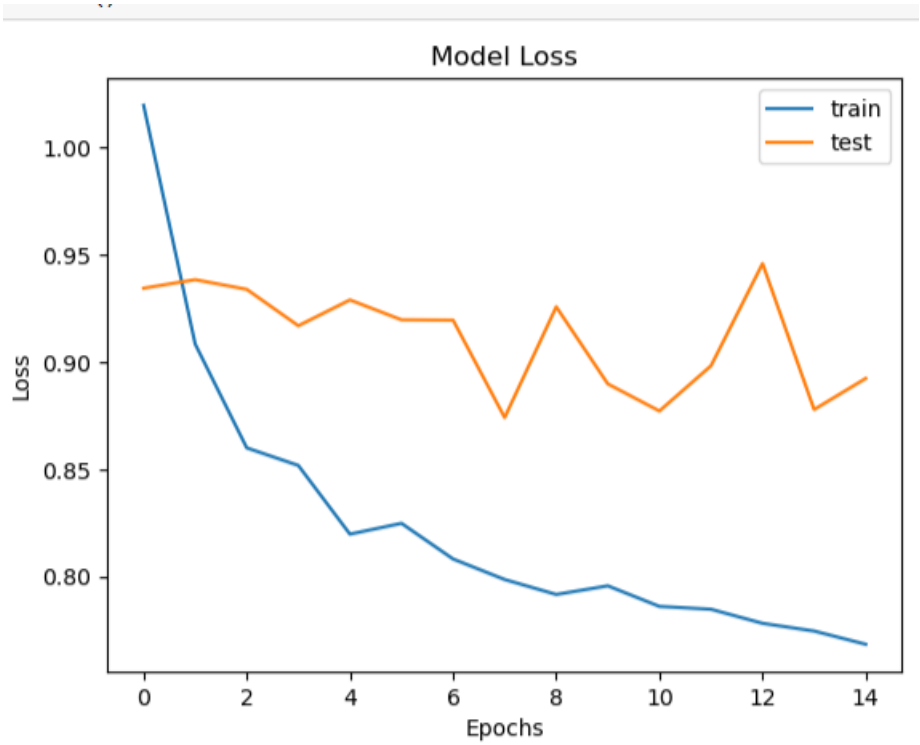
Diagram: NUMBER OF IMAGES CONTAINED IN EACH CLASS:

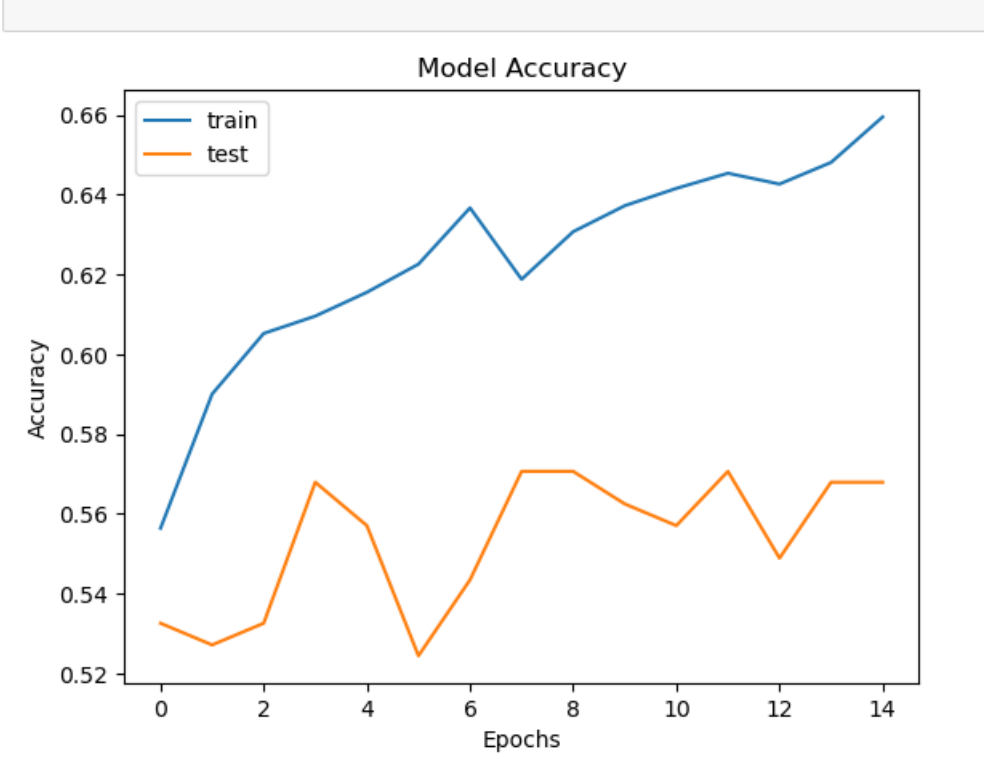


Model Accuracy:

Model Compilation

```
Total params: 67,134,243
Trainable params: 67,134,243
Non-trainable params: 0
```





Future plans :

Applying the model on the largest number of diseases and

Determines the type of disease and its principal treatment method make it more accurate

Conclusion :

We have got good accuracy and able model to develop

Reference :

https://www.kaggle.com

https://www.google.com

https://chat.openai.com

https://www.huggingface

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