ConsoleLancer

Python Development

Internship

2020-21

No.50,4th cross,4th Main, Vinayaka Layout,Bhattarahalli, Bangalore,Karnataka-560049

CONSOLE LANCER

Internship Project Report On

Data Augmentation

Session :- 2020-21

Submitted By:

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Rajat Kaliya, Kartik Sharma,
Kapil Dev Sharma
Ashu Hasan

Submitted to:

Shouhaddo Paul (mentor)
Mr. Shubham Tandon,
Managing Director,
ConsoleLancer

Certificate

This is to certify that Mustafa Hasan (TL), Rajat Kaliya, Kartik Sharma, Kapil Dev Sharma, Ashu Hasan has satisfactorily completed the project work entitled **"Data Augmentation"** And Prepared this project during the academic year 2020-2021.In partial fulfillment for the award of ConsoleLancer, Bangalore. It is further certified that they completed all required phases of the project.

Project Guide Managing Director

Acknowledgement

We articulate our sincere gratitude to all those who helped us in making this venture a grand success, without whose constructive criticism as well as words of inspiration this project of ours would not have seen the light.

We take this opportunity to thank Mr. SHOUHADDO PAUL, for the knowledge and guidance provided to us on the project work. We gratefully thank them for extending to us their invaluable time and resources.

We would also like to mention our sincere gratitude to Mr.SHUBHAM TANDON, Managing Director, ConsoleLancer, for giving us opportunity to work in this project at ConsoleLancer

Mustafa Hasan (TL),
Rajat Kaliya, Kartik Sharma,
Kapil Dev Sharma,
Ashu Hasan

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Data augmentation

Data augmentation in data analysis are techniques used to increase the amount of data by adding slightly modified copies of already existing data or newly created synthetic data from existing data. It acts as a regularizer and helps reduce overfitting when training a machine learning model. It is closely related to oversampling in data analysis.

Data augmentation is a strategy that enables practitioners to significantly increase the diversity of **data** available for training models, without actually collecting new **data**. **Data augmentation** techniques such as cropping, padding, and horizontal flipping are commonly used to train large neural networks.

Data augmentation can be used to increased the accuracy and learning of the model because by using Data augmentation we can create several images of same image in different perspective like by flipping, rotating, sharpening and many more so that same image can be train in multiple ways and model can easily predict the image by so much learning .

Transformation of images

- Geometric transformations,
- Flipping,
- Color modification,
- Cropping,
- Rotation,
- Noise injection
- Random erasing are used to augment image in deep learning.

Tkinter

The tkinter package (“Tk interface”) is the standard Python interface to the Tk GUI toolkit. Both Tk and tkinter are available on most Unix platforms, as well as on Windows systems. (Tk itself is not part of Python; it is maintained at ActiveState.) Running python -m tkinter from the command line should open a window demonstrating a simple Tk interface, letting you know that tkinter is properly installed on your system, and also showing what version of Tcl/Tk is installed, so you can read the Tcl/Tk documentation specific to that version.

Tkinter modules

Tkinter Modules Most of the time, tkinter is all you really need, but a number of additional modules are available as well. The Tk interface is located in a binary module named tkinter. This module contains the lowlevel interface to Tk, and should never be used directly by application programmers. It usually a shared library (or DLL), but might in some cases be statically linked with the Python interpreter. In addition to the Tk interface module, tkinter includes a number of Python modules, tkinter.constants being one of the most important. Importing tkinter will automatically import tkinter.constants, so, usually, to use Tkinter all you need is a simple import statement

The Packer

The packer is one of Tk's geometry-management mechanisms. Geometry managers are used to specify the relative positioning of widgets within their container - their mutual master. In contrast to the more cumbersome placer (which is used less commonly, and we do not cover here), the packer takes qualitative relationship specification - above, to the left of, filling, etc - and works everything out to determine the exact placement coordinates for you. The size of any master widget is determined by the size of the "slave widgets" inside. The packer is used to control where slave widgets appear inside the master into which they are packed. You can pack widgets into frames, and frames into other frames, in order to achieve the kind of layout you desire. Additionally, the arrangement is dynamically adjusted to accommodate incremental changes to the configuration, once it is packed. Note that widgets do not appear until they have had their geometry specified with a geometry manager. It's a common early mistake to leave out the geometry specification, and then be surprised when the widget is created but nothing appears. A widget will appear only after it has had, for example, the packer's pack() method applied to it. The pack() method can be called with keyword-option/value pairs that control where the widget is to appear within its container, and how it is to behave when the main application window is resized.

Tk Option Data Types

Anchor
Legal values are points of the compass: "n", "ne", "e", "se", "s", "sw", "w", "nw", and also "center

Bitmap
There are eight built-in, named bitmaps: 'error', 'gray25', 'gray50', 'hourglass', 'info', 'questhead', 'question', 'warning'. To specify an X bitmap filename, give the full path to the file, preceded with an @, as in "@/usr/contrib/bitmap/gumby.bit".

Boolean
You can pass integers 0 or 1 or the strings "yes" or "no".

callback
This is any Python function that takes no arguments

Color
Colors can be given as the names of X colors in the rgb.txt file, or as strings representing RGB values in 4 bit: "#RGB", 8 bit: "#RRGGBB", 12 bit" "#RRRGGGBBB", or 16 bit "#RRRRGGGGBBBB" ranges, where R,G,B
here represent any legal hex digit. See page 160 of Ousterhout's book for details.

cursor
The standard X cursor names from cursorfont.h can be used, without the XC prefix. For example to get a hand cursor (XC hand2), use the string "hand2". You can also specify a bitmap and mask file of your own. See page 179 of Ousterhout's book.

Distance
Screen distances can be specified in either pixels or absolute distances. Pixels are given as numbers and absolute distances as strings, with the trailing character denoting 9 units: c for centimetres, i for inches, m for millimetres, p for printer's points. For example, 3.5 inches is expressed as "3.5i"

font

Tk uses a list font name format, such as {courier 10 bold}. Font sizes with positive numbers are measured in points; sizes with negative numbers are measured in pixels.

Geometry

This is a string of the form widthxheight, where width and height are measured in pixels for most widgets (in characters for widgets displaying text). For example: fred["geometry"] = "200x100".

Justify

Legal values are the strings: "left", "center", "right", and "fill".

Region

This is a string with four space-delimited elements, each of which is a legal distance (see above). For example: "2 3 4 5" and "3i 2i 4.5i 2i" and "3c 2c 4c 10.43c" are all legal regions.

Relief

Determines what the border style of a widget will be. Legal values are: "raised", "sunken", "flat", "groove", and "ridge".

Scrollcommand

This is almost always the set() method of some scrollbar widget, but can be any widget method that takes a single argument.

Wrap

Must be one of: "none", "char", or "word".

OPENCV

OpenCV was started at Intel in 1999 by **Gary Bradsky**, and the first release came out in 2000. **Vadim Pisarevsky** joined Gary Bradsky to manage Intel's Russian software OpenCV team. In 2005, OpenCV was used on Stanley, the vehicle that won the 2005 DARPA Grand Challenge. Later, its active development continued under the support of Willow Garage with Gary Bradsky and Vadim Pisarevsky leading the project. OpenCV now supports a multitude of algorithms related to Computer Vision and Machine Learning and is expanding day by day.

OpenCV supports a wide variety of programming languages such as C++,
Python, Java, etc., and is available on different platforms including Windows, Linux, OS X, Android, and iOS. Interfaces for high-speed GPU operations based on CUDA and OpenCL are also under active development.

OpenCV-Python is the Python API for OpenCV, combining the best qualities of the OpenCV C++ API and the Python language

OPENCV PYTHON

OpenCV-Python is a library of Python bindings designed to solve computer vision problems.

Python is a general purpose programming language started by **Guido van Rossum** that became very popular very quickly, mainly because of its simplicity and code readability. It enables the programmer to express ideas in fewer lines of code without reducing readability.

Compared to languages like C/C++, Python is slower. That said, Python can be easily extended with C/C++, which allows us to write computationally intensive code in C/C++ and create Python wrappers that can be used as Python modules. This gives us two advantages: first, the code is as fast as the original C/C++ code (since it is the actual C++ code working in background) and second, it easier to code in Python than C/C++. OpenCV-Python is a Python wrapper for the original OpenCV C++ implementation. OpenCV-Python makes use of **Numpy**, which is a highly optimized library for numerical operations with a MATLAB-style syntax. All the OpenCV array structures are converted to and from Numpy arrays. This also makes it easier to integrate with other libraries that use Numpy such as SciPy and Matplotlib.

NumPy

NumPy is a general-purpose array-processing package. It provides a highperformance multidimensional array object, and tools for working with these arrays.

It is the fundamental package for scientific computing with Python. It contains various features including these important ones:

A powerful N-dimensional array object
Sophisticated (broadcasting) functions
Tools for integrating C/C++ and Fortran code
Useful linear algebra, Fourier transform, and random number capabilities
Besides its obvious scientific uses, NumPy can also be used as an efficient multidimensional container of generic data.
Arbitrary data-types can be defined using Numpy which allows NumPy to seamlessly and speedily integrate with a wide variety of databases.

My sql

MySQL is one of the most popular database management systems (DBMSs) on the market today. It ranked second only to the Oracle DBMS in this year's DBEngines Ranking. As most software applications need to interact with data in some form, programming languages like Python provide tools for storing and accessing these data sources.

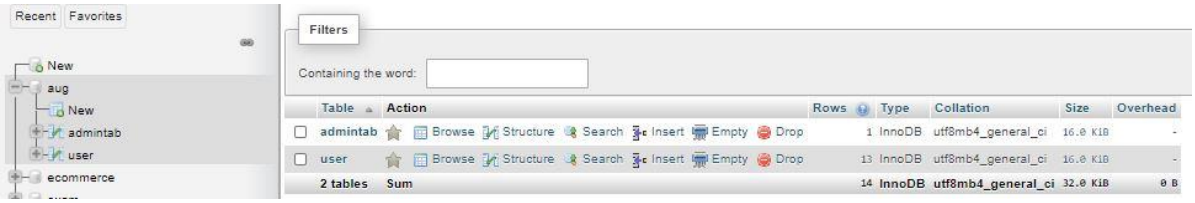
Using the techniques discussed in this tutorial, you'll be able to efficiently integrate a MySQL database with a Python application. You'll develop a small MySQL database for a movie rating system and learn how to query it directly from your Python code.

- Identify unique features of **MySQL**
- **Connect your application** to a MySQL database
- Query the database to **fetch required data**
- **Handle exceptions** that occur while accessing the database .

  Use **best practices** while building database applications

To get the most out of this tutorial, you should have a working knowledge of
Python concepts like for loops, functions, exception handling, and installing Python packages using pip. You should also have a basic understanding of relational database management systems and SQL queries like SELECT, DROP, CREATE, and JOIN.

Data Base



User Table

+ Options

		Id	first_name	last_name	phone_no	mail	Ques	answer	password
Edit Copy Delete		8	mustafa	hasan	8279861949	mustafahasan555@gmail.com	Your first place	shariq	mustafa
Edit Copy Delete		9	ashu	hasan	9897161476	mustafa555@gmail.com	Your first place	manglour	mustafa555
Edit Copy Delete		10	Shan	hasan	84827891	shan@gmail.com	Your Best friend Name	wasim	shan@111
Edit Copy Delete		11	mustafa	hasan	987594784	hasan@gmail.com	Your first place	manlgour	mustafa666
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Edit Copy Delete		17	Ashu	Hasan	7037562069	7037562069ashu@gmail.com	Your first place	Pubg	GODFATHER

Check all *With selected:* Edit Copy Delete Export

Admin Table

+ Options

	id	admin	password	image
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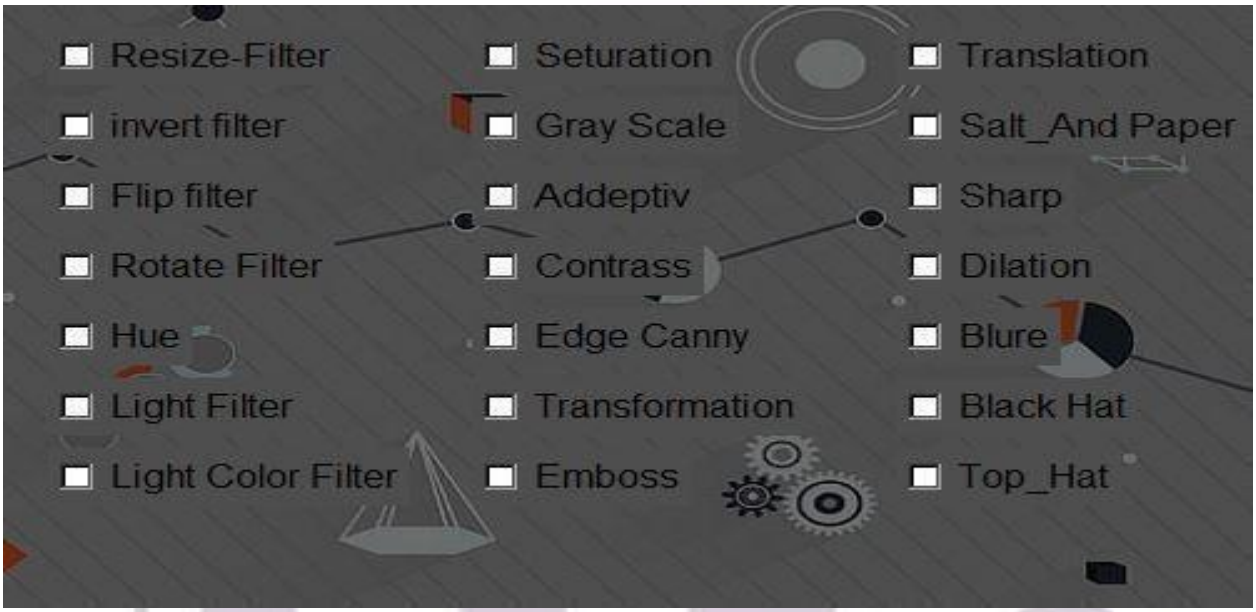
Check all *With selected:* Edit Copy Delete Export

Filters

we are using so many filters in this software these are namely given below:-

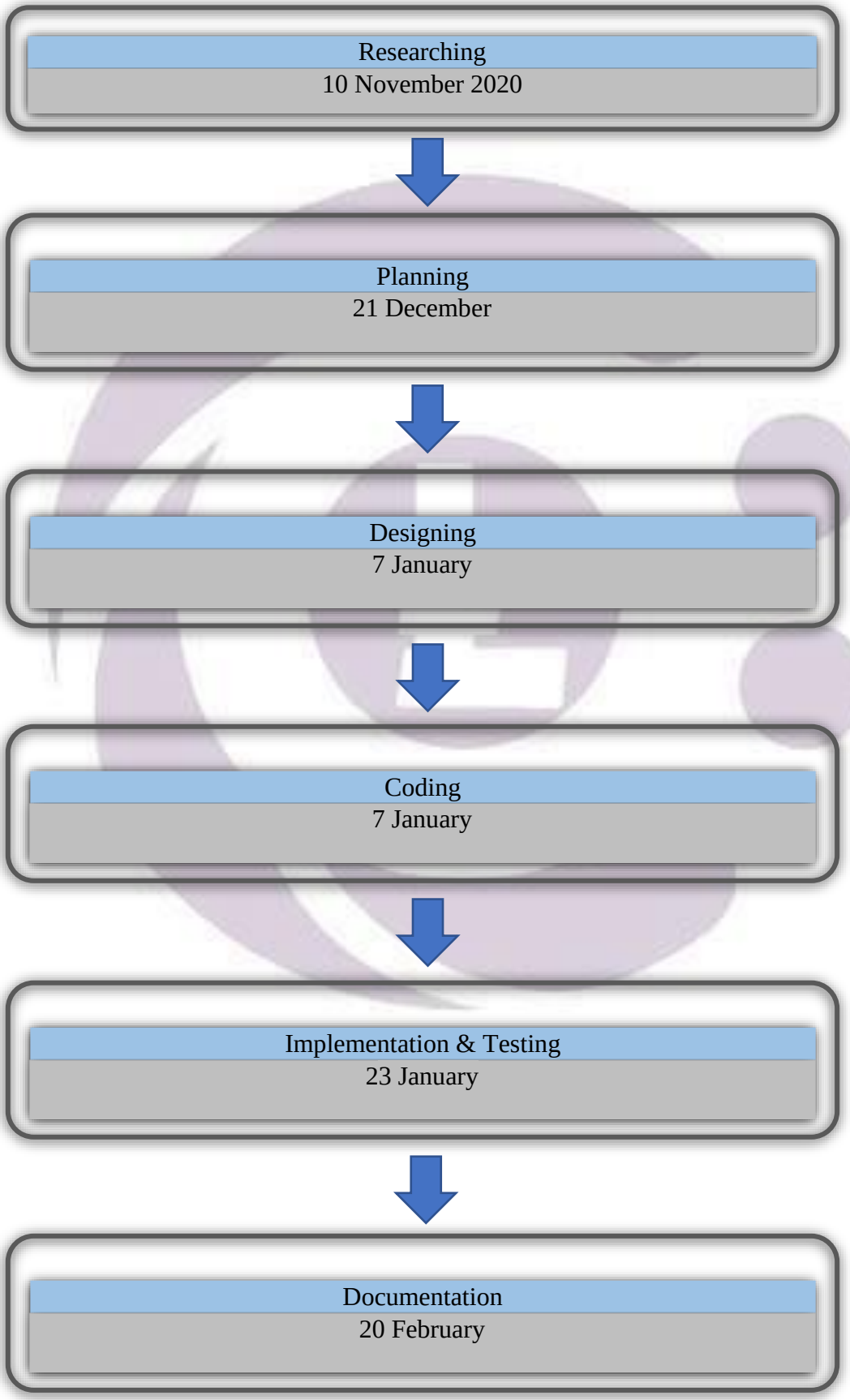
- Resize Image
- Crop Image
- Padding Image
- Flip Image
- Superpixel Image
- Segment Colorfulness
- Invert Image
- Add Light
- Add Light Color
- Saturation Image
- Hue Image
- Multiply Image
- Gausian Blur
- Averageing Blur
- Median Blur
- Bileteralblur
- Erosion Image
- Dilation Image
- Opening Image
- Closing Image
- Morphological Gradient Image
- Top Hat Image
- Black Hat Image
- Sharpen Image
- Emboss Image
- Edge Image
- Adaptive Gaussian Noise
- Salt Image
- Paper Image
- Salt and Paper Image
- Contrast Image
- Edge Detect Canny Image

- Grayscale Image
- Scale Image
- Translation Image
- Rotate Image
- Transformation Image

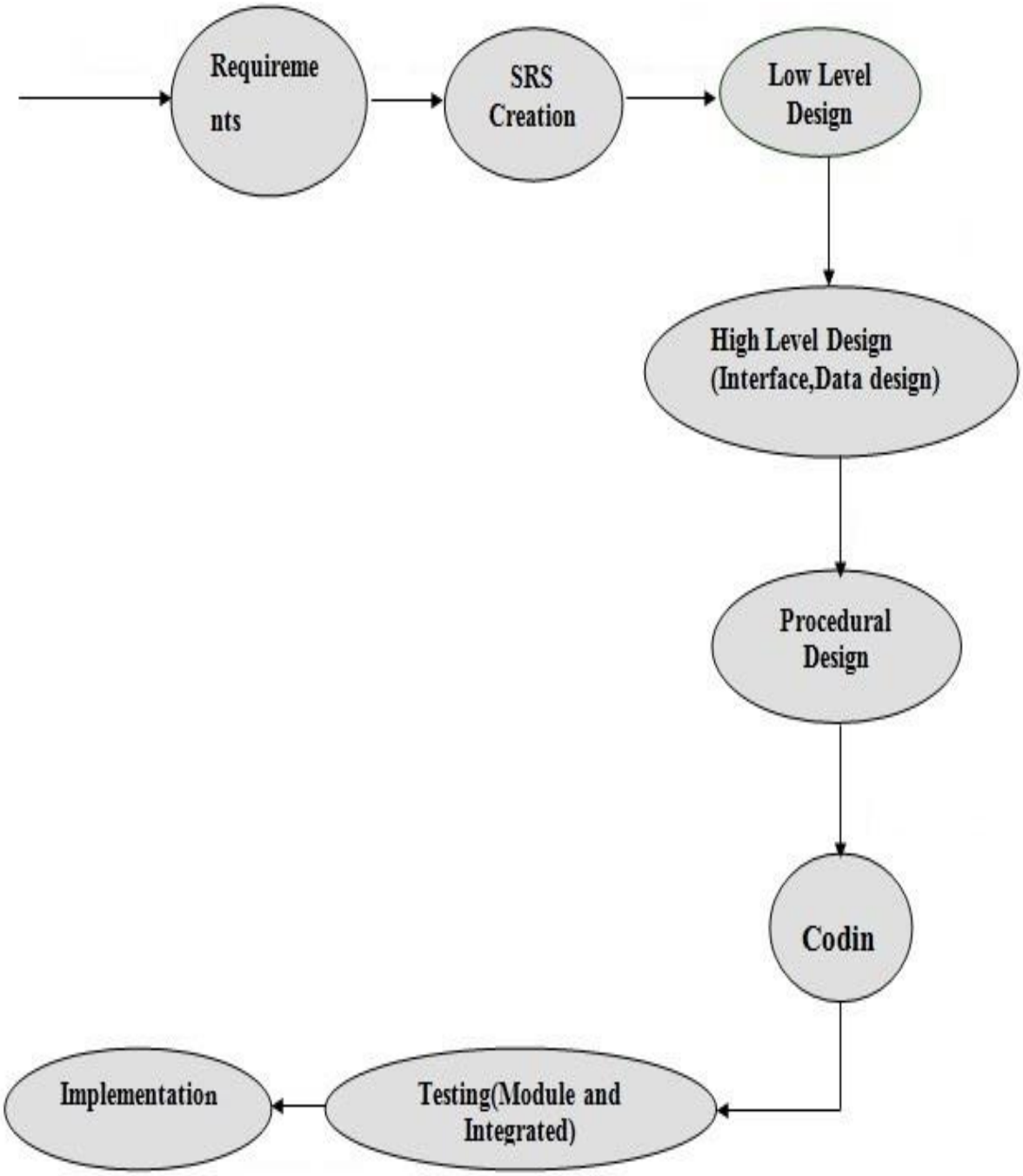


Note: - You can select to any one or all filter to generate your sample for data augmentation at once.
All filter has rand function to generate random samples.

Gant Chart


Researching
10 November 2020
Planning
21 December
Designing
7 January
Coding
7 January
Implementation & Testing
23 January
Documentation
20 February

PERT Chart


Requireme
nts
SRS
Creation
Low Level
Design
High Level Design
(Interface,Data design)
Procedural
Design
Codin
Testing(Module and
Integrated)
Implementation

UML Diagrams:

Actor:

A coherent set of roles that users of use cases play when interacting with the use `cases.

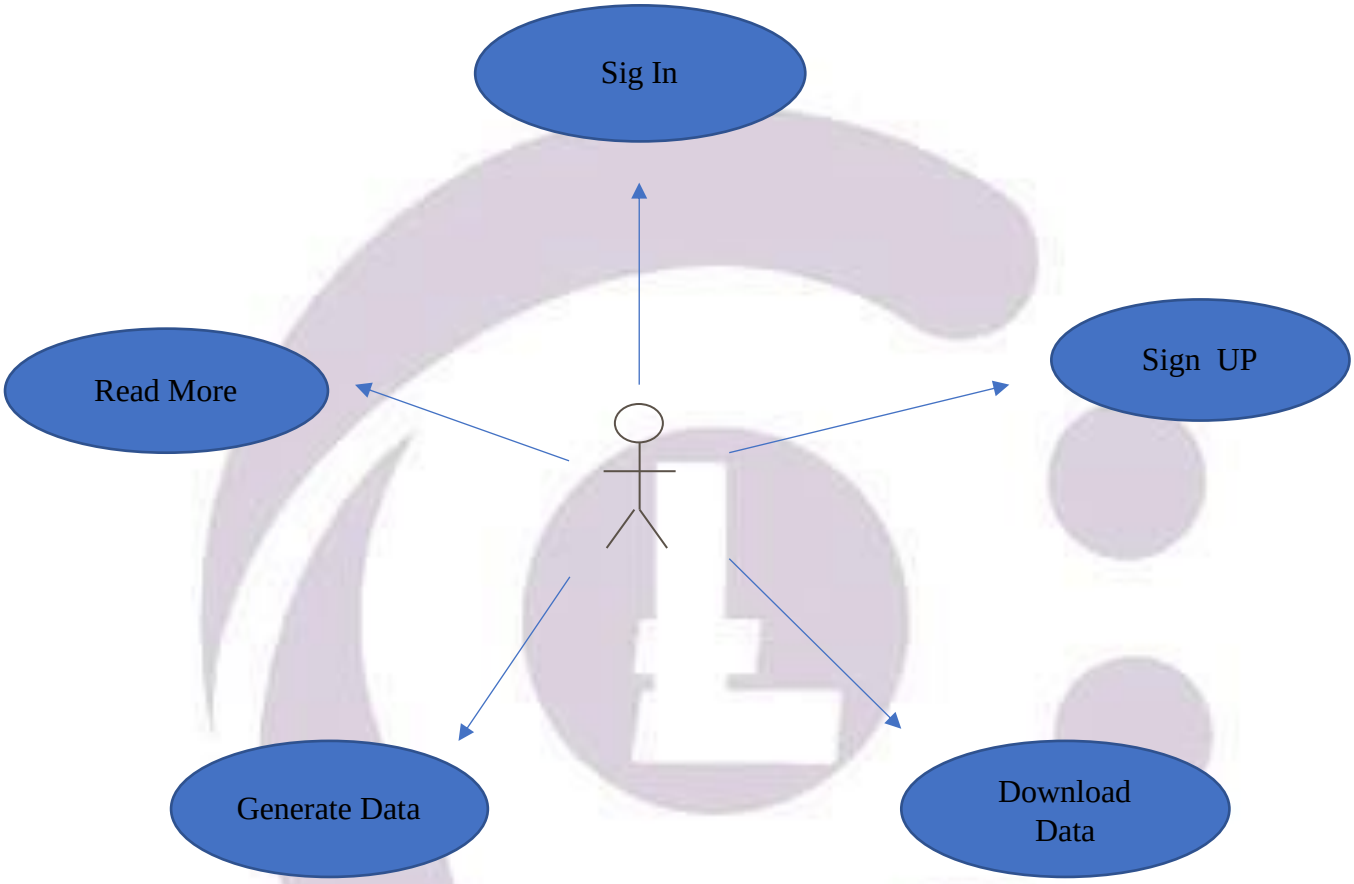
Use case:

A description of sequence of actions, including variants, that a system performs that yields an observable result of value of an actor.

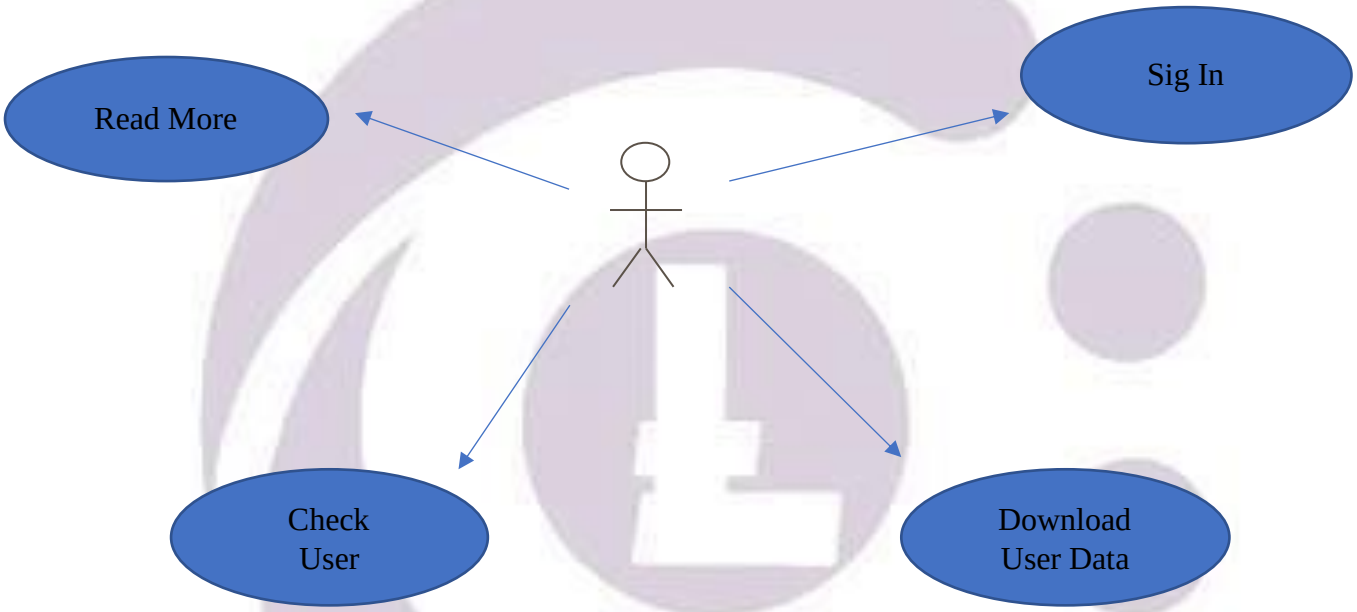
USECASE DIAGRAM:

A Use case is a description of set of sequence of actions. Graphically it is rendered as an ellipse with solid line including only its name. Use case diagram is a behavioral diagram that shows a set of use cases and actors and their relationship. It is an association between the use cases and actors. An actor represents a real-world object. Primary Actor – Sender, Secondary Actor Receiver.

User Use case



Admin Use case



The Entity-Relationship (ER) model was originally proposed by Peter in 1976 [Chen76] as a way to unify the network and relational database views. Simply stated the ER model is a conceptual data model that views the real world as entities and relationships. A basic component of the model is the Entity-Relationship diagram which is used to visually represents data objects. Since Chen wrote his paper the model has been extended and today it is commonly used for database design For the database designer, the utility of the ER model is:

- it maps well to the relational model. The constructs used in the ER model can easily be transformed into relational tables.
- it is simple and easy to understand with a minimum of training. Therefore, the model can be used by the database designer to communicate the design to the end user.
- In addition, the model can be used as a design plan by the database developer to implement a data model in a specific database management software.

Connectivity and Cardinality

The basic types of connectivity for relations are: one-to-one, one-to-many, and many-to-many. A *one-to-one* (1:1) relationship is when at most one instance of a entity A is associated with one instance of entity B. For example, "employees in the company are each assigned their own office. For each employee there exists a unique office and for each office there exists a unique employee.

A *one-to-many* (1:N) relationships is when for one instance of entity A, there are zero, one, or many instances of entity B, but for one instance of entity B, there is only one instance of entity A. An example of a 1:N relationships is a department has many employees each employee is assigned to one department

A *many-to-many* (M:N) relationship, sometimes called non-specific, is when for one instance of entity A, there are zero, one, or many instances of entity B and for one instance of entity B there are zero, one, or many instances of entity A. The connectivity of a relationship describes the mapping of associated

ER Notation

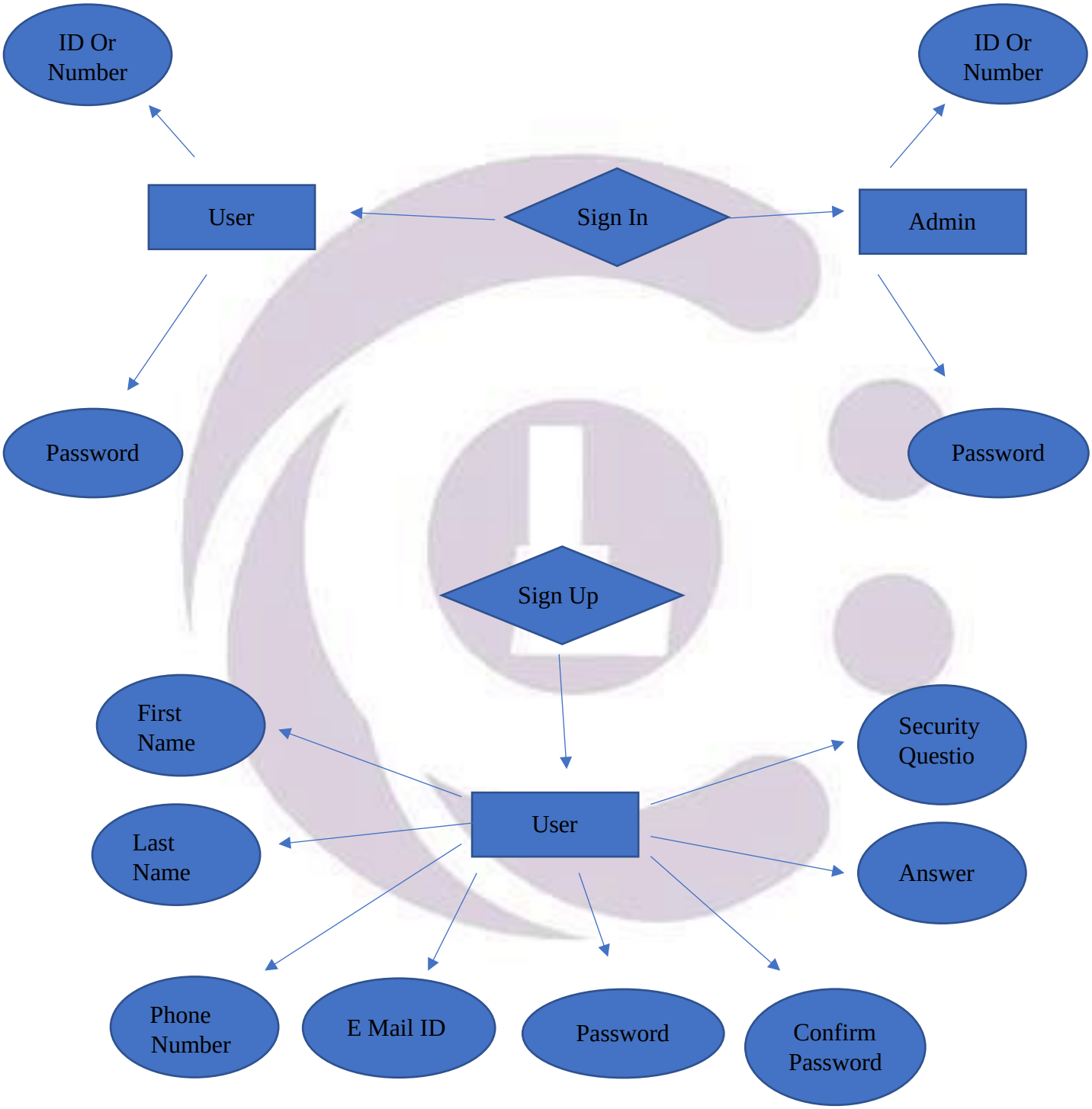
There is no standard for representing data objects in ER diagrams. Each modeling methodology uses its own notation. The original notation used by Chen is widely used in academics texts and journals but rarely seen in either CASE tools or publications by non-academics. Today, there are a number of notations used, among the more common are Bachman, crow's foot, and IDEFIX.

All notational styles represent entities as rectangular boxes and relationships as lines connecting boxes. Each style uses a special set of symbols to represent the cardinality of a connection. The notation used in this document is from Martin. The symbols used for the basic ER constructs are:

- **Entities** are represented by labeled rectangles. The label is the name of the entity. Entity names should be singular nouns.

- **Relationships** are represented by a solid line connecting two entities. The name of the relationship is written above the line. Relationship names should be verbs
- **Attributes**, when included, are listed inside the entity rectangle. Attributes which are identifiers are underlined. Attribute names should be singular nouns.
- **Cardinality** of many is represented by a line ending in a crow's foot. If the crow's foot is omitted, the cardinality is one.
- **Existence** is represented by placing a circle or a perpendicular bar on the line. Mandatory existence is shown by the bar (looks like a 1) next to the entity for an instance is required. Optional existence is shown by placing a circle next to the entity that is optional

ER Diagram


ID Or Number
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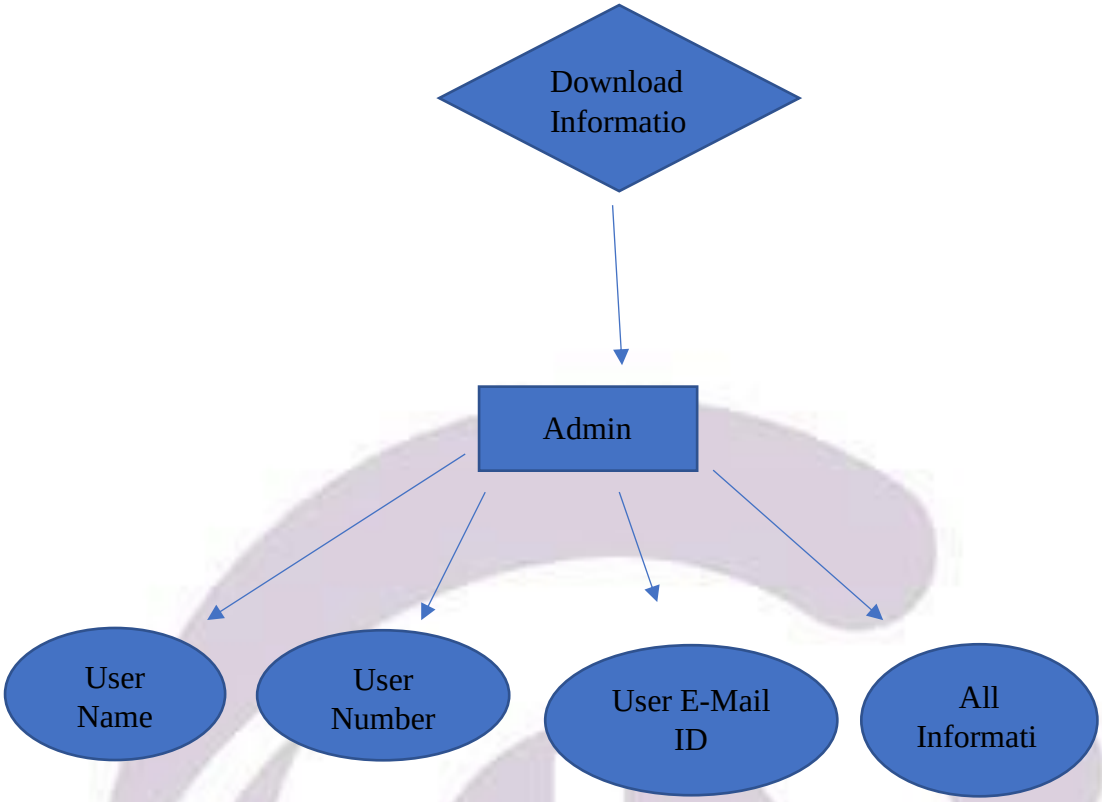


Flow Diagram

These Diagram will help to identify the flow of the project by some figures. Each shape have there own meaning or user for specific purpose which will help you to better understanding for the flow.
Such as:

1. **Window**

2. **Button**

3. **Fields**

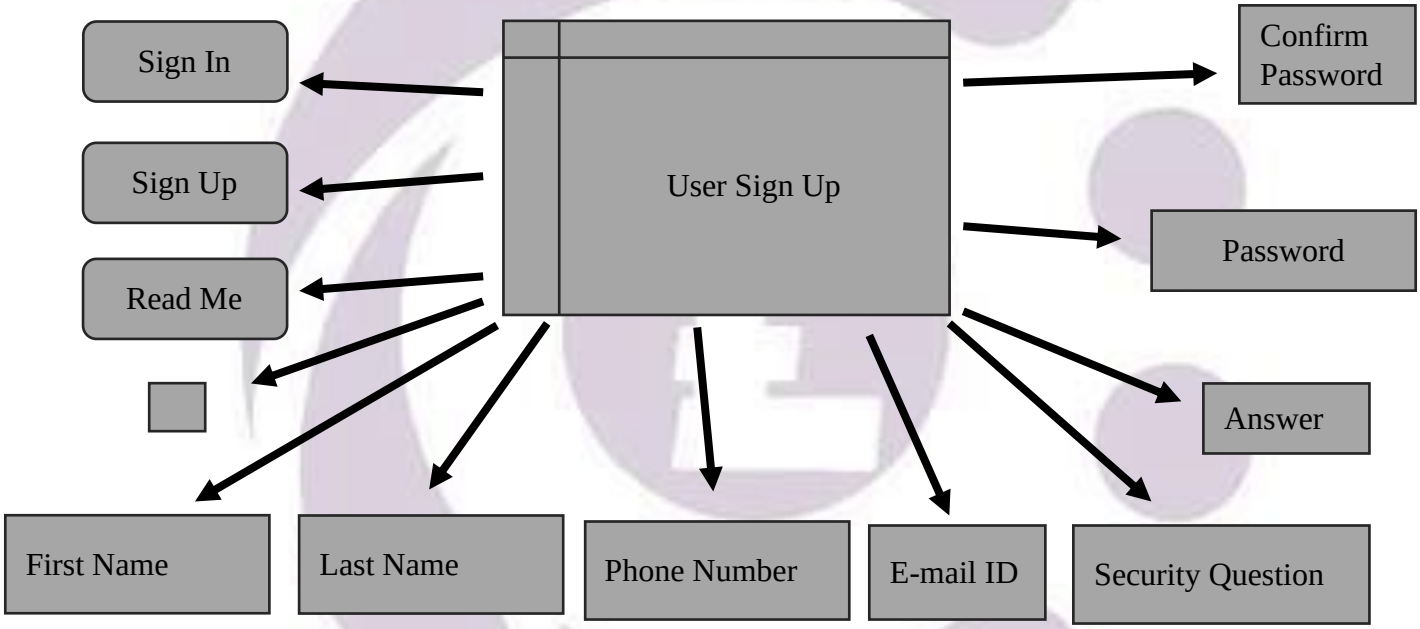
4. **Check Button**

5. **Relation Indicator Line**

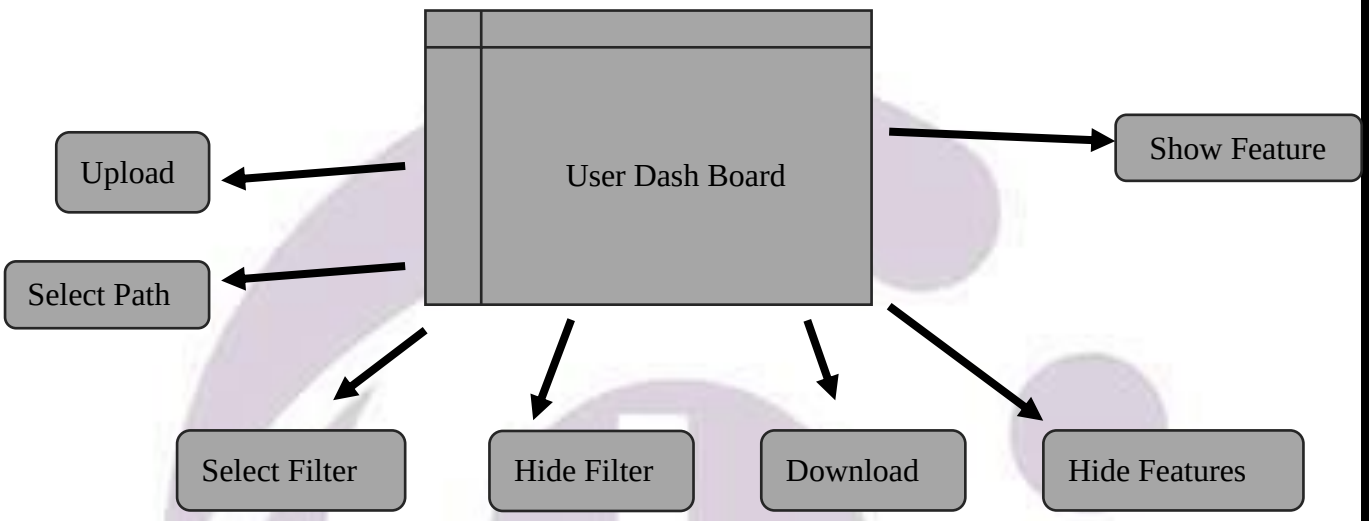
USER PHASE

1.WINDOW

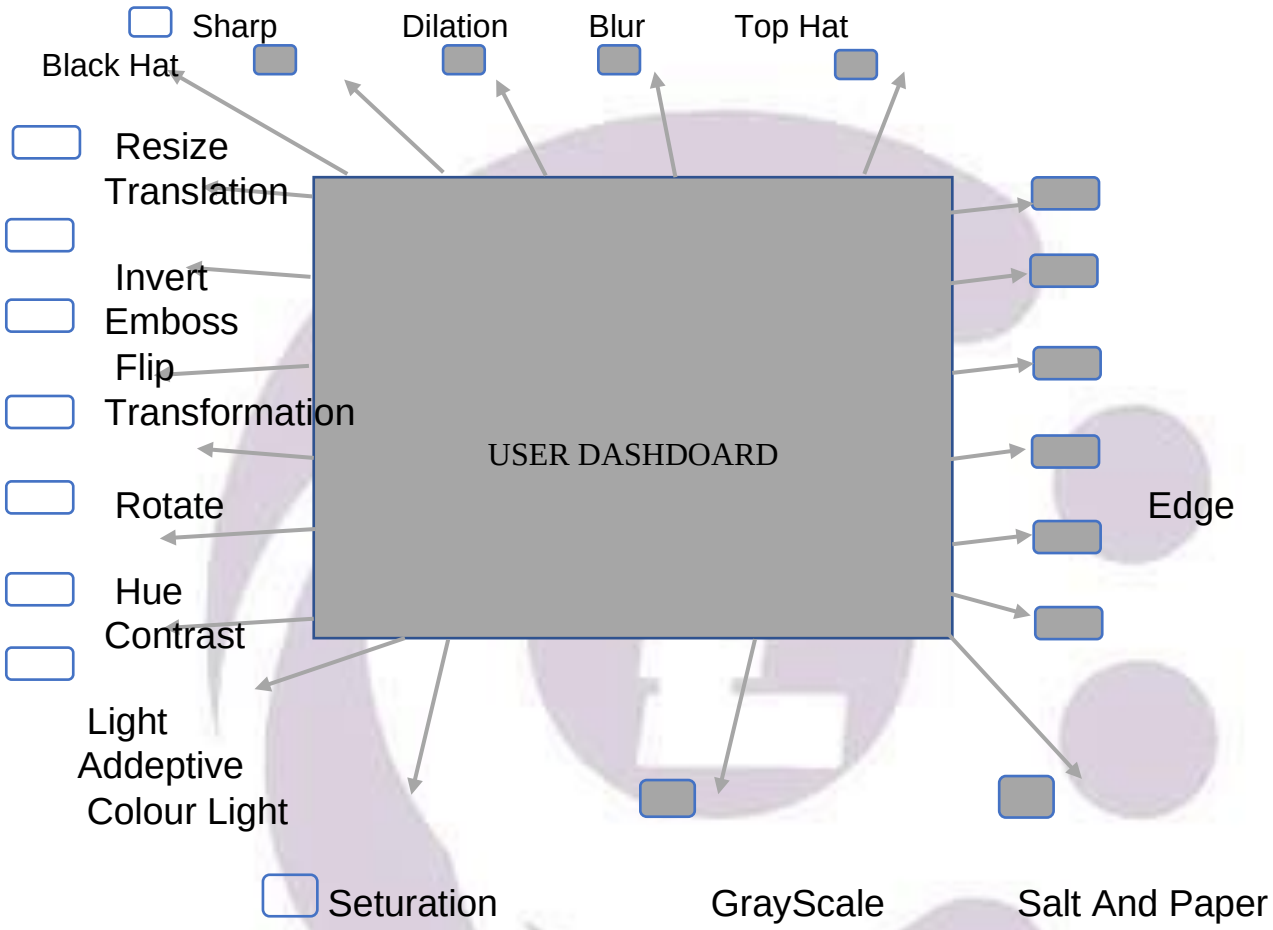
2.WINDOW


Sign In
Sign Up
Read Me
User Sign Up
Confirm Password
Password
Answer
First Name
Last Name
Phone Number
E-mail ID
Security Question

3.WINDOW


User Dash Board
Upload
Select Path
Show Feature
Select Filter
Hide Filter
Download
Hide Features

4.WINDOW


Sharp
Dilation
Blur
Top Hat
Black Hat
Resize
Translation
Invert
Emboss
Flip
Transformation
USER DASHDOARD
Rotate
Edge
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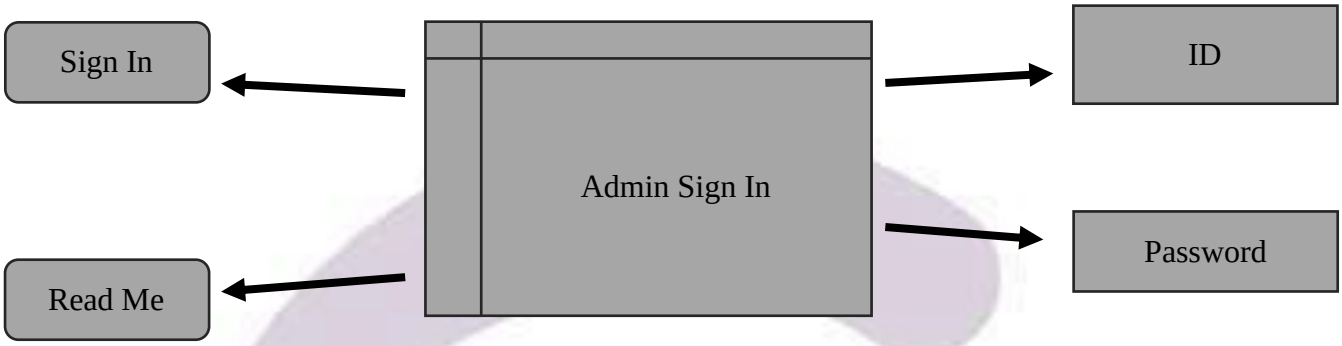
Light
Addeptive
Colour Light
Seturation
GrayScale
Salt And Paper

5.WINDOW



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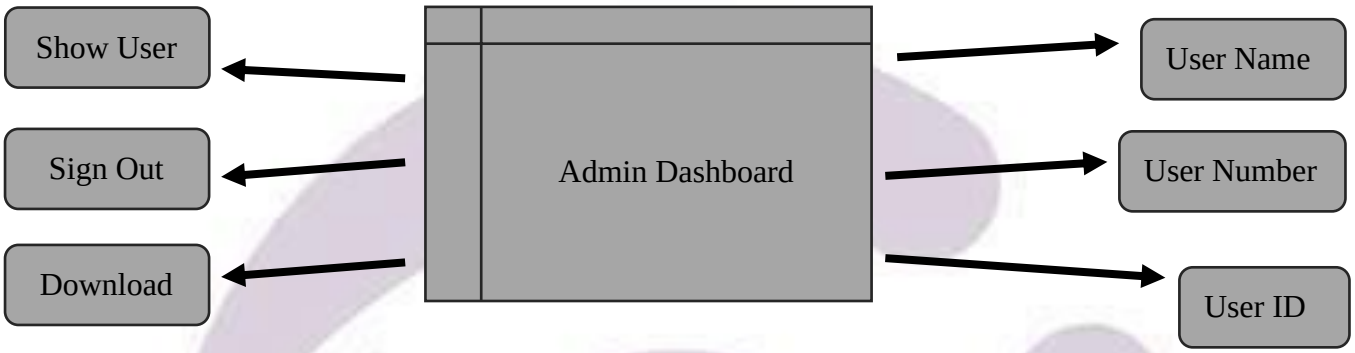
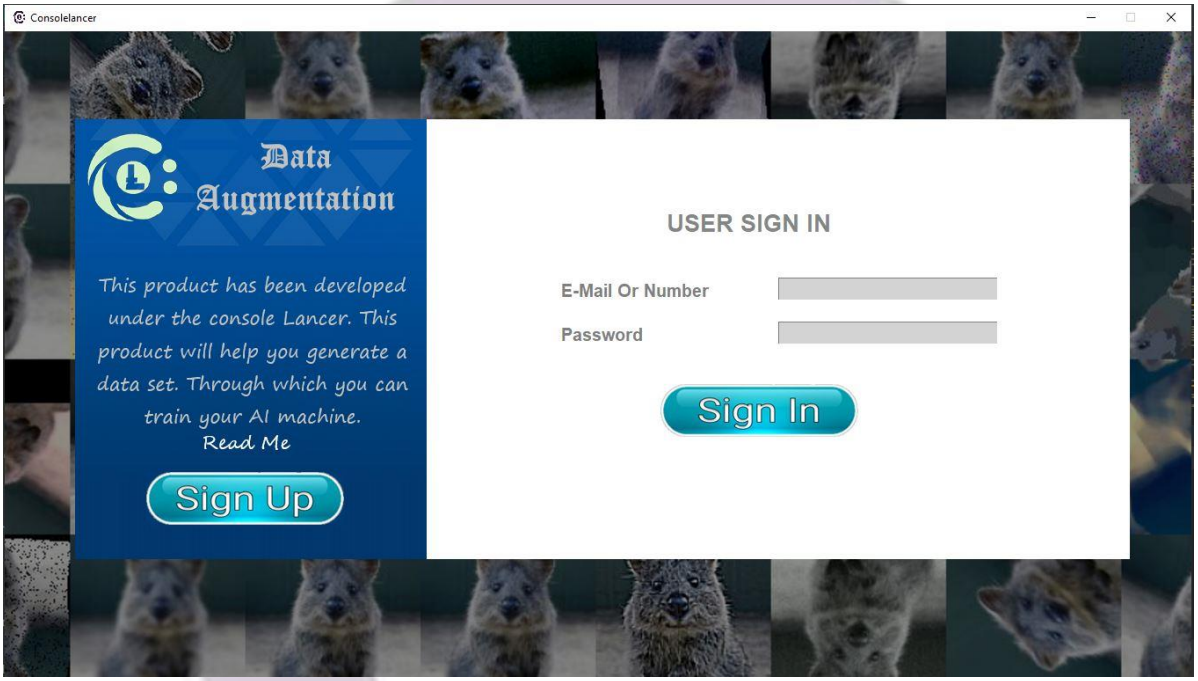
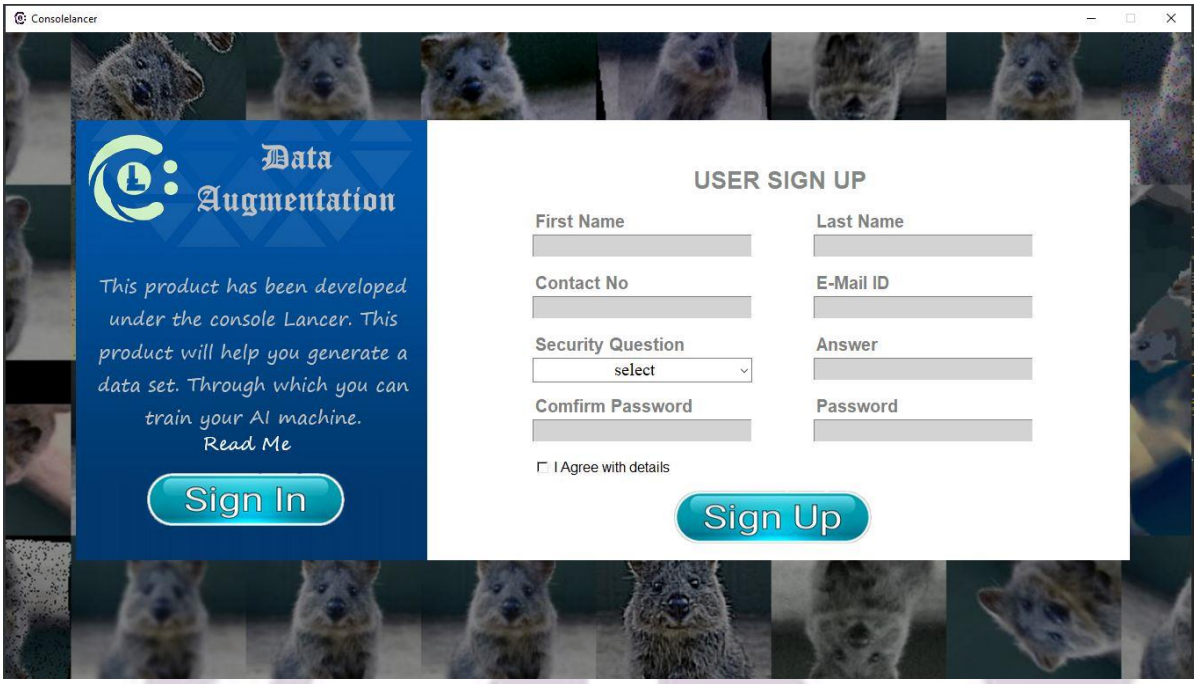
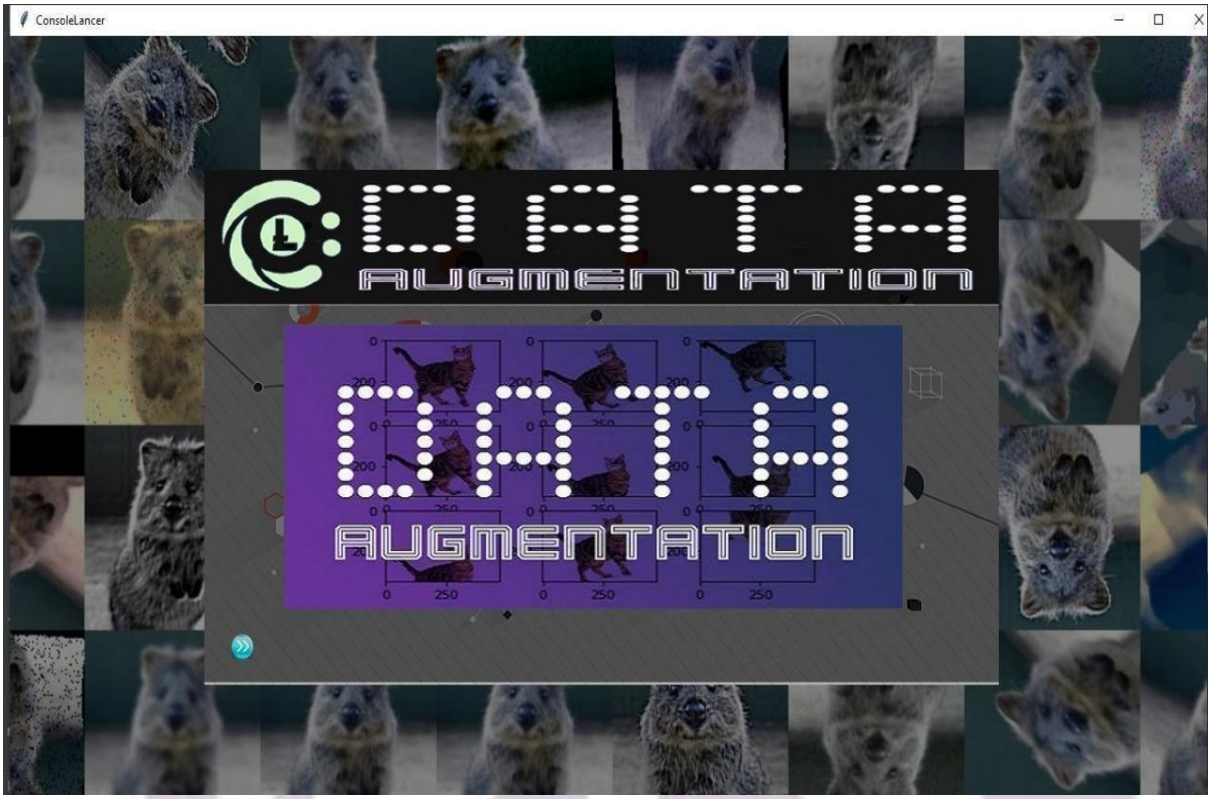

Show User
Sign Out
Download
Admin Dashboard
User Name
User Number
User ID

7.WINDOW

SCREENSHOTS




Consolelancer
Data Augmentation
This product has been developed under the console Lancer. This product will help you generate a data set. Through which you can train your AI machine.
Read Me
Sign In
USER SIGN UP
First Name
Last Name
Contact No
E-Mail ID
Security Question
select
Answer
Comfirm Password
Password
I Agree with details
Sign Up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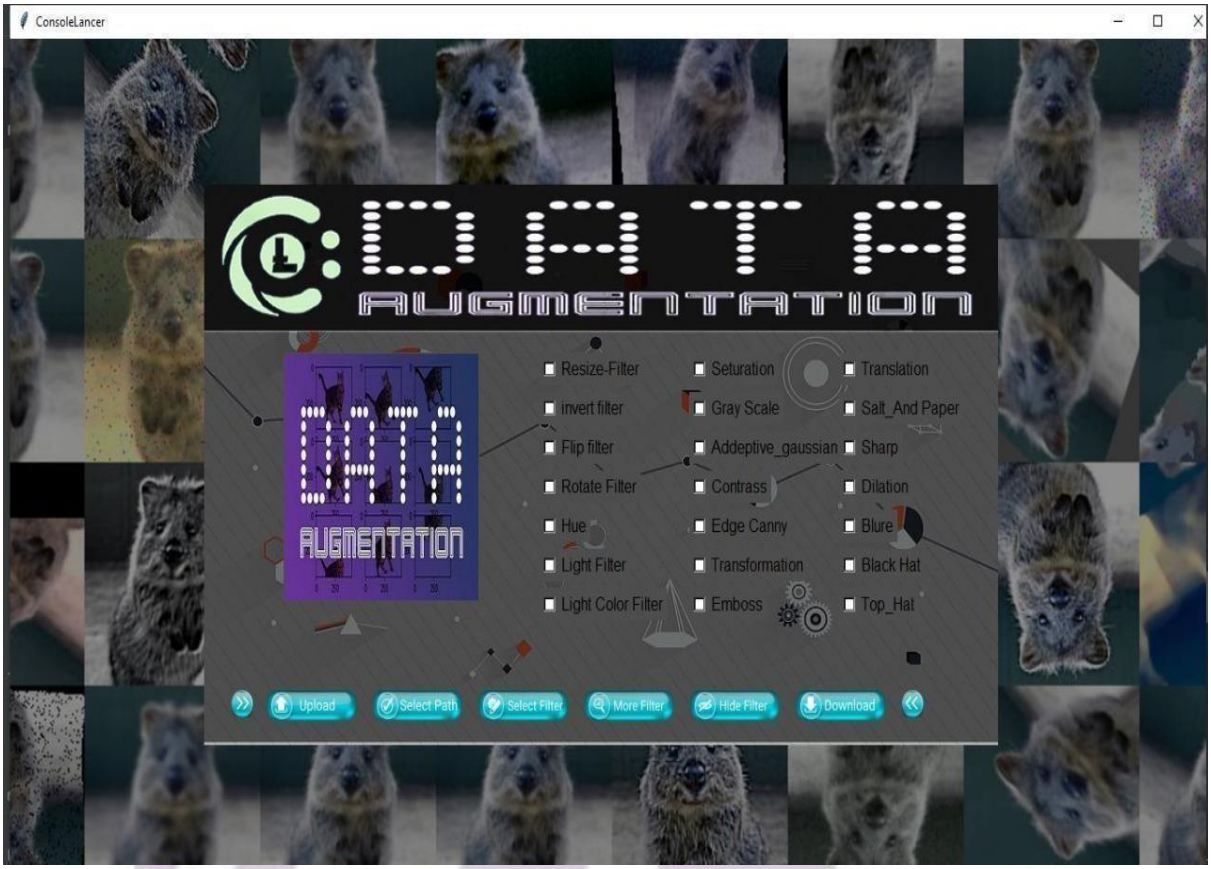
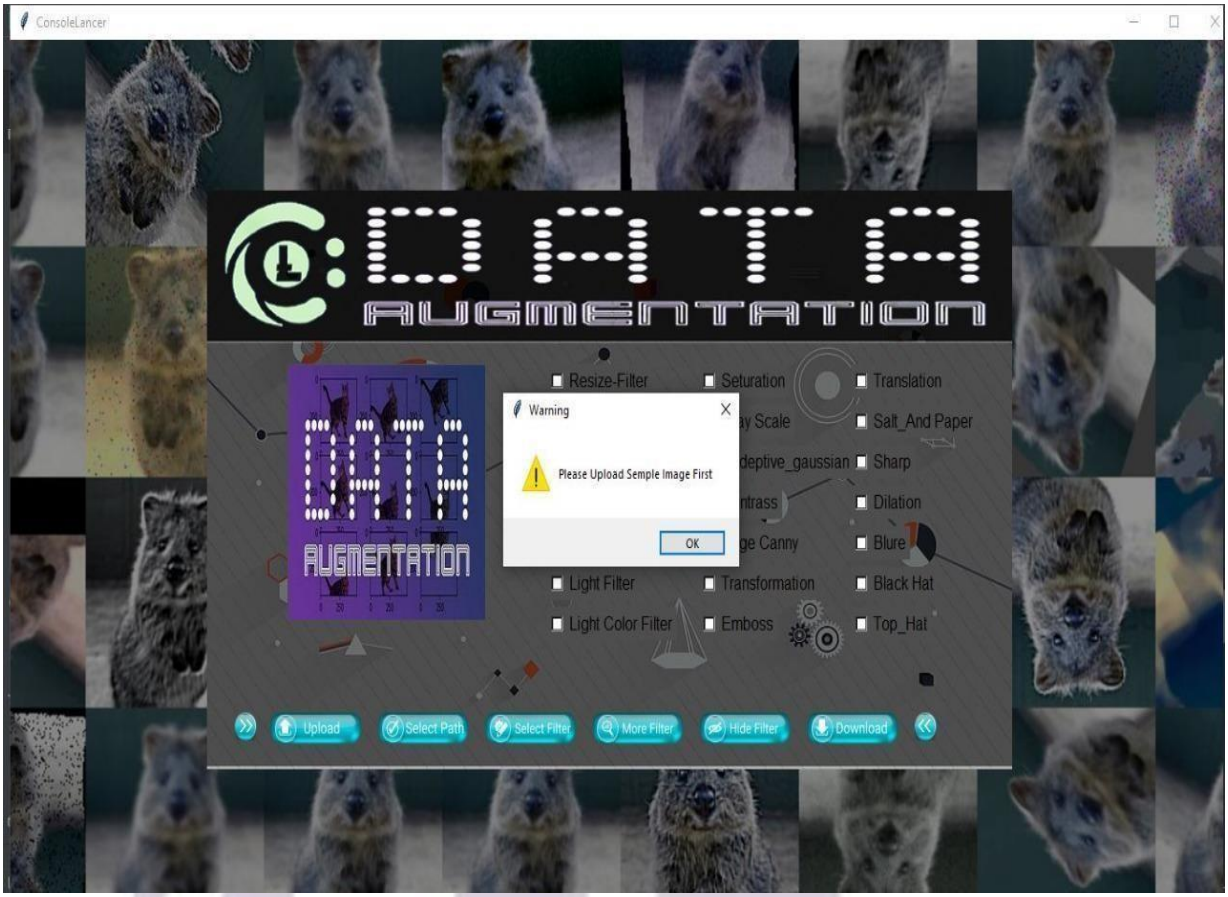

ConsoleLancer
DATA
AUGMENTATION
AUGMENTATION
Resize-Filter
invert filter
Flip filter
Rotate Filter
Hue
Light Filter
Light Color Filter
Seturation
Gray Scale
Addeptive_gaussian
Contrass
Edge Canny
Transformation
Emboss
Translation
Salt_And Paper
Sharp
Dilation
Blure
Black Hat
Top_Hat
Upload
Select Path
Select Filter
More Filter
Hide Filter
Download


ConsoleLancer
DATA
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Salt_And Paper
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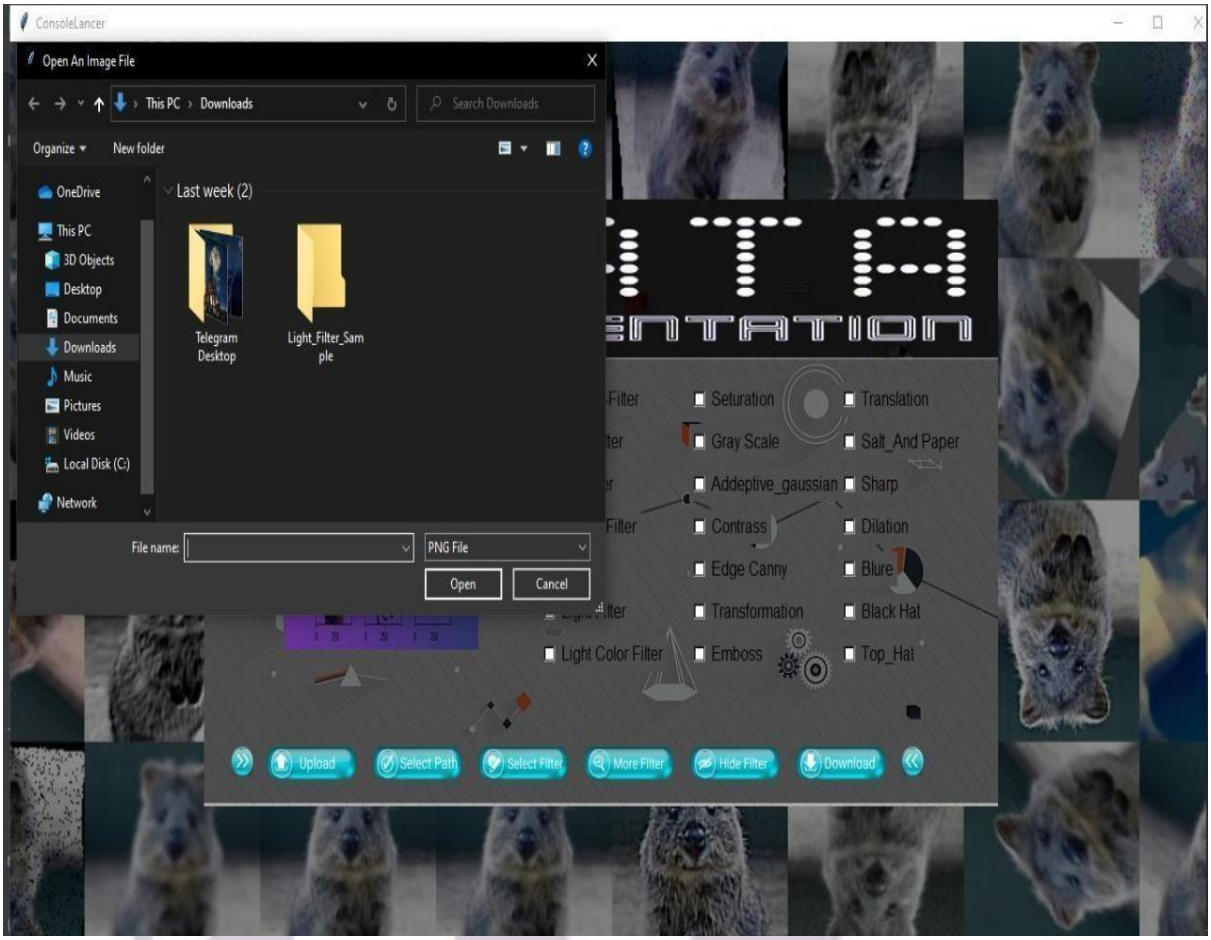
Black Hat
Top_Hat
Light Filter
Transformation
Light Color Filter
Emboss
Warning
Please Upload Semple Image First
OK
Upload
Select Path
Select Filter
More Filter
Hide Filter
Download


ConsoleLancer
Open An Image File
This PC › Downloads
Search Downloads
Organize
New folder
OneDrive
This PC
3D Objects
Desktop
Documents
Downloads
Music
Pictures
Videos
Local Disk (C:)
Network
Last week (2)
Telegram Desktop
Light_Filter_Sample
File name:
PNG File
Open
Cancel
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Gray Scale
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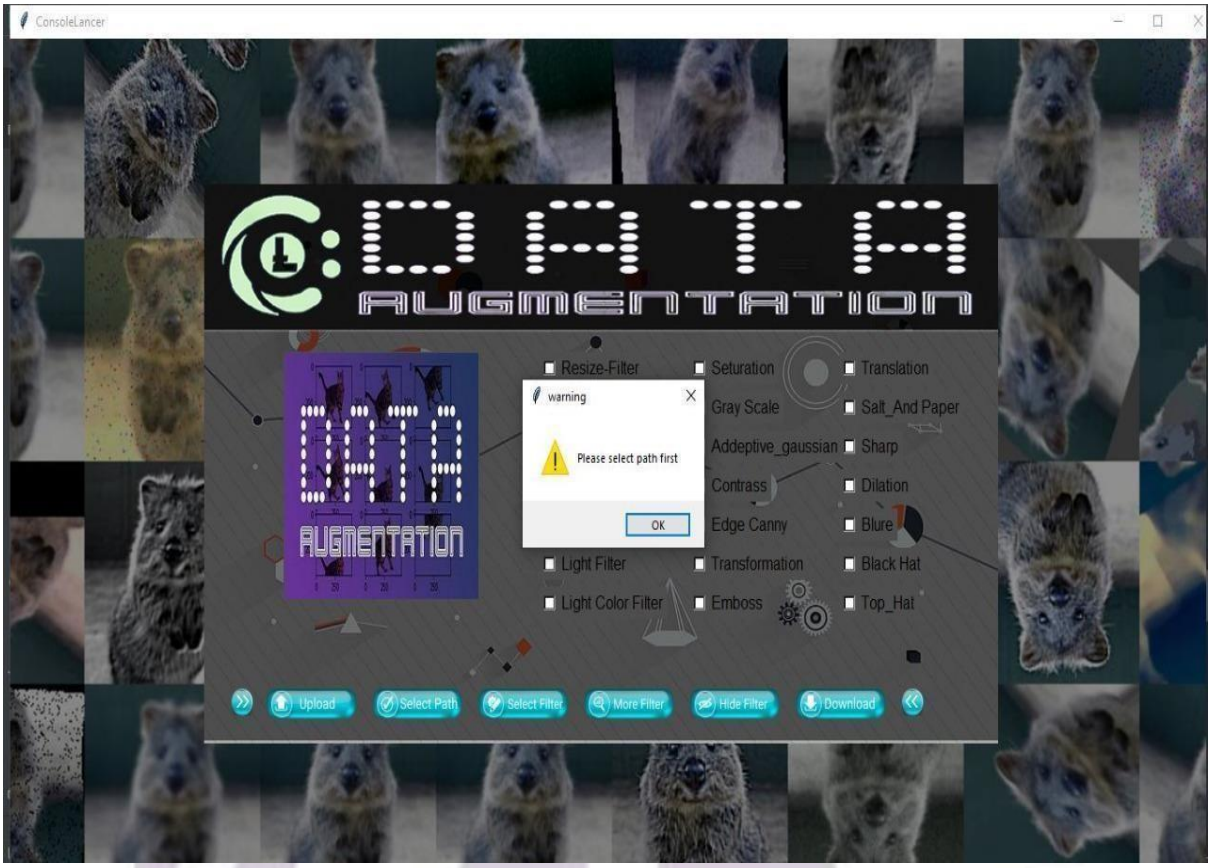
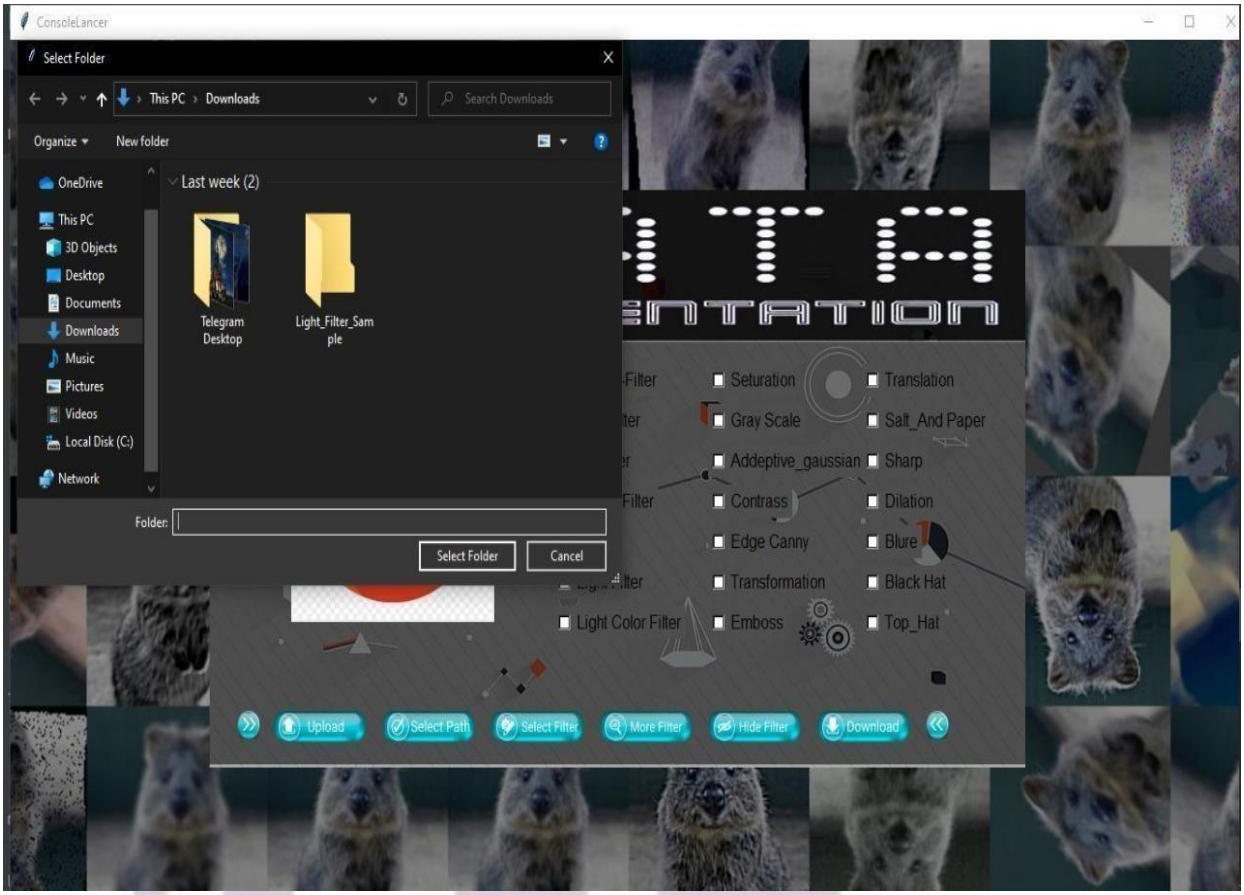
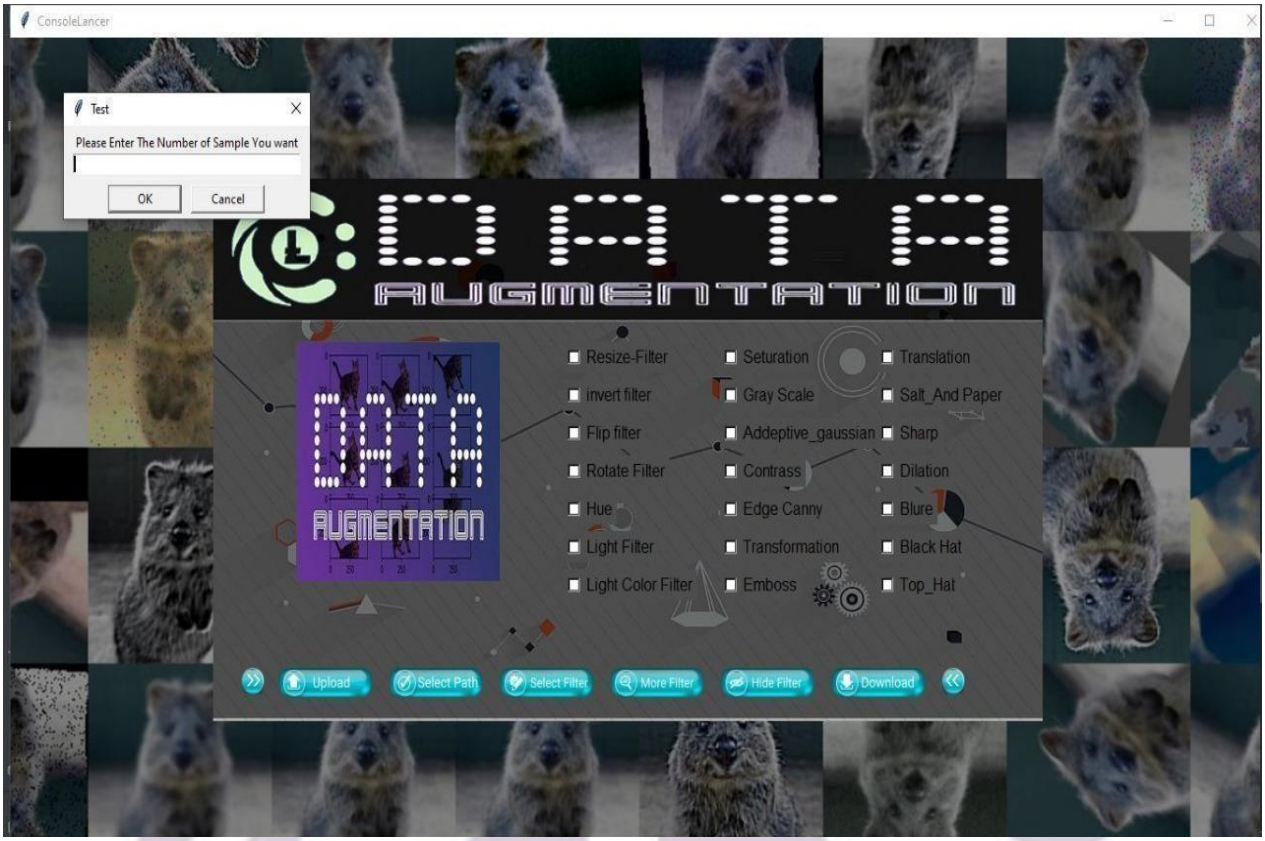
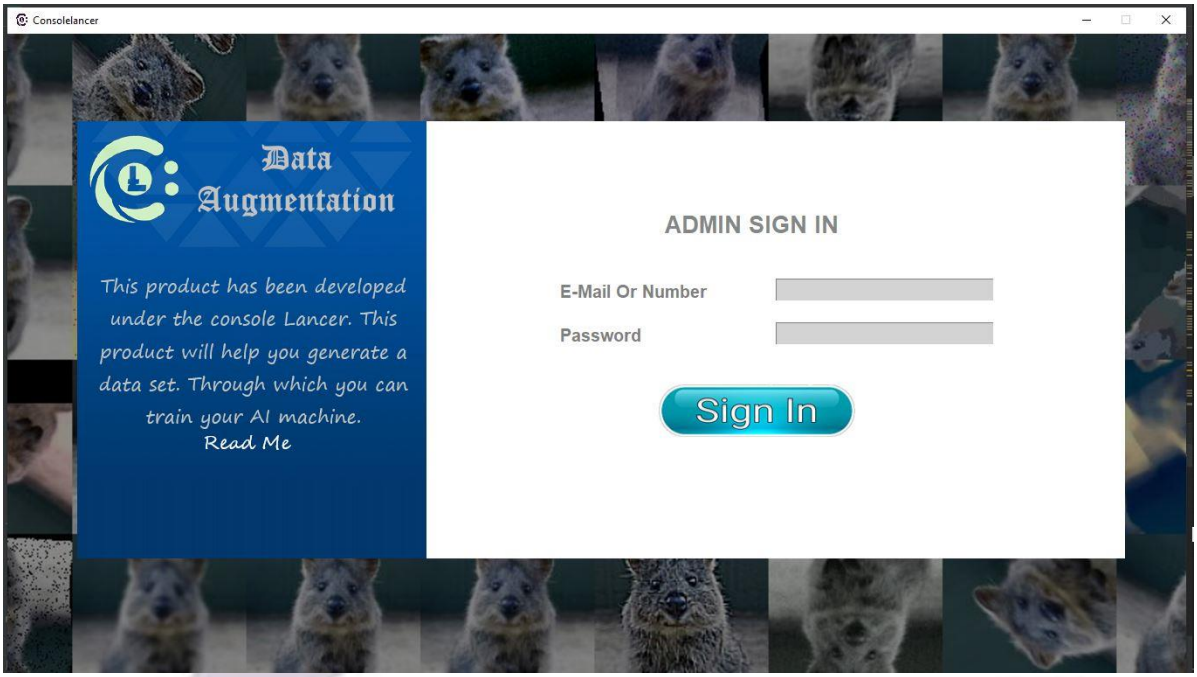
Transformation
Emboss
Translation
Salt_And Paper
Sharp
Dilation
Blure
Black Hat
Top_Hat
Light Color Filter
Upload
Select Path
Select Filter
More Filter
Hide Filter
Download

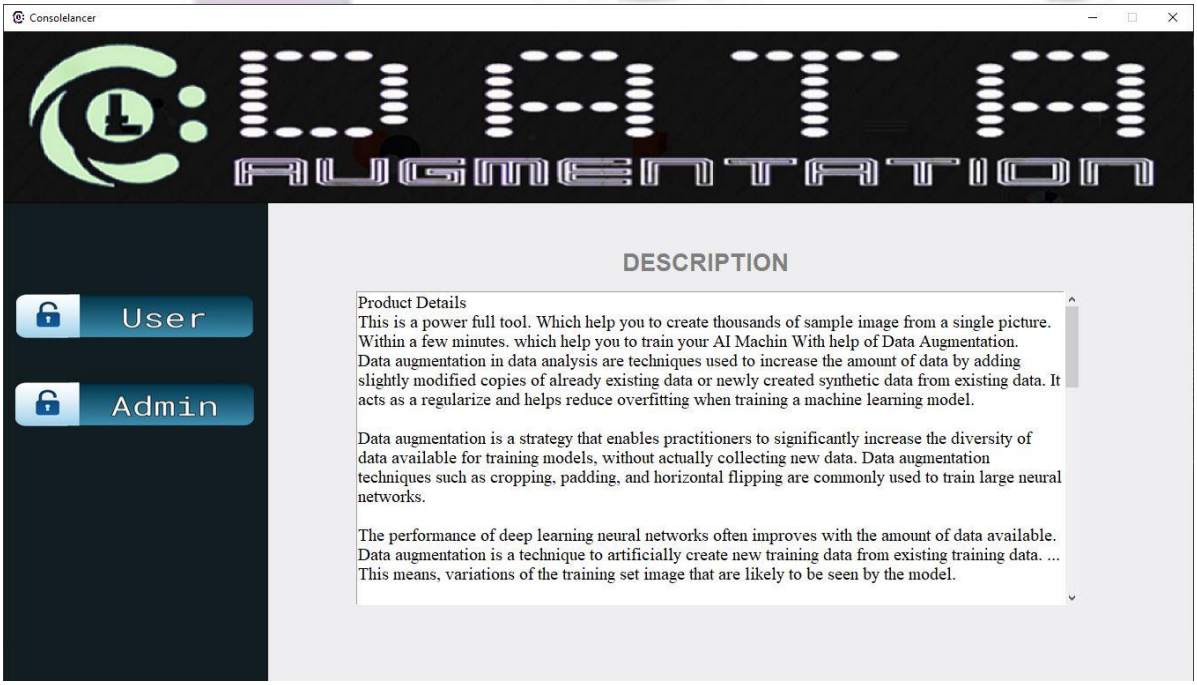

ConsoleLancer
DATA
AUGMENTATION
AUGMENTATION
Resize-Filter
Seturation
Translation
warning
Gray Scale
Salt_And Paper
Please select path first
Addeptive_gaussian
Sharp
Contrass
Dilation
OK
Edge Canny
Blure
Light Filter
Transformation
Black Hat
Light Color Filter
Emboss
Top_Hat
Upload
Select Path
Select Filter
More Filter
Hide Filter
Download


ConsoleLancer
Select Folder
This PC › Downloads
Search Downloads
Organize
New folder
OneDrive
This PC
3D Objects
Desktop
Documents
Downloads
Music
Pictures
Videos
Local Disk (C:)
Network
Last week (2)
Telegram Desktop
Light_Filter_Sample
Folder:
Select Folder
Cancel
Seturation
Gray Scale
Addeptive_gaussian
Contrass
Edge Canny
Transformation
Emboss
Translation
Salt_And Paper
Sharp
Dilation
Blure
Black Hat
Top_Hat
Light Color Filter
Upload
Select Path
Select Filter
More Filter
Hide Filter
Download


ConsoleLancer
Test
Please Enter The Number of Sample You want
OK
Cancel
DATA
AUGMENTATION
Resize-Filter
Seturation
Translation
invert filter
Gray Scale
Salt_And Paper
Flip filter
Addeptive_gaussian
Sharp
Rotate Filter
Contrass
Dilation
Hue
Edge Canny
Blure
Light Filter
Transformation
Black Hat
Light Color Filter
Emboss
Top_Hat
Upload
Select Path
Select Filter
More Filter
Hide Filter
Download


Consolelancer
Data Augmentation
This product has been developed under the console Lancer. This product will help you generate a data set. Through which you can train your AI machine.
Read Me
ADMIN SIGN IN
E-Mail Or Number
Password
Sign In


Consolelancer
DATA
AUGMENTATION
ConsoleLancer
Feature
Sing Out
User Info
Download
All Info
Name
Number
Email Id
Welcome


Consolelancer
DATA
AUGMENTATION
User
Admin
DESCRIPTION
Product Details
This is a power full tool. Which help you to create thousands of sample image from a single picture. Within a few minutes. which help you to train your AI Machin With help of Data Augmentation. Data augmentation in data analysis are techniques used to increase the amount of data by adding slightly modified copies of already existing data or newly created synthetic data from existing data. It acts as a regularize and helps reduce overfitting when training a machine learning model.
Data augmentation is a strategy that enables practitioners to significantly increase the diversity of data available for training models, without actually collecting new data. Data augmentation techniques such as cropping, padding, and horizontal flipping are commonly used to train large neural networks.
The performance of deep learning neural networks often improves with the amount of data available. Data augmentation is a technique to artificially create new training data from existing training data. ... This means, variations of the training set image that are likely to be seen by the model.

CODING

SAVE USER INFO

```
# Writing to an excel
# sheet using Python

import xlwt

from xlwt import Workbook

# Workbook is created

wb = Workbook()

# add_sheet is used to create sheet.

sheet1 = wb.add_sheet('Sheet 1')

sheet1.write(1, 0, 'ISBT DEHRADUN')                    # 1 is used for colums

sheet1.write(2, 0, 'SHASTRADHARA')

sheet1.write(3, 0, 'CLEMEN TOWN')

sheet1.write(4, 0, 'RAJPUR ROAD')

sheet1.write(5, 0, 'CLOCK TOWER')

sheet1.write(0, 1, 'ISBT DEHRADUN')                    # 1 is used for rows

sheet1.write(0, 2, 'SHASTRADHARA')

sheet1.write(0, 3, 'CLEMEN TOWN')

sheet1.write(0, 4, 'RAJPUR ROAD')

sheet1.write(0, 5, 'CLOCK TOWER')

wb.save('User_Info.xls')
```

Admin Login

```
#_____________________________________________________________________
__________ ____________________________________
#-----------------------------------------Importing Required Package(API)----------------------
---------------
--
#-----------------------------------------------------------------------------------------------
--------------- from tkinter import Label, Button from PIL import ImageTk
from tkinter import messagebox, Frame,
Entry, END, Tk import pymysql class
Register:

#_____________________________________________________________________
__________ ____________________________________
#-----------------------------------------------------FRONT END CODE---------------------------
---------------
---
#-----------------------------------------------------------------------------------------------
------

#=====Function=========
==     def __init__(self,root):
self.root=root
self.root.title("ConsoleLancer
")
self.root.geometry("1600x75
0+0+0")
        #_____________________________________________________________
        #-------------------------Frame And Background-------------------        #-------------------
---------------------------------------------
        #===main-Background===
        self.bg=ImageTk.PhotoImage(file="bg.png")
        bg=Label(self.root,image=self.bg).place(x=0,y=0,relwidth=1,relheight=1)

        #===Sub-Background=====
        self.left=ImageTk.PhotoImage(file="Sub_bg.png")
        left=Label(self.root,image=self.left).place(x=80,y=100,width=400,height=500)

        #===Register freame=====
frame1=Frame(self.root,bg="white")
```

```
        frame1.place(x=480,y=100,width=800,height=500)

        #===Form Heading=======
        title=Label(frame1,text="ADMIN SIGN IN", font=("time new
roman",20,"bold"),bg="white",fg="#838786")
        title.place(x=270,y=100)

        #_____________________________________________________________________
        #---------------Entry feilds and Headings -----------------------        #----------------------
-----------------------------------------

        # =======E-mail or Number Text And Field===========
        email = Label(frame1, text="E-Mail Or Number", font=("time new roman",
15, "bold"), bg="white", fg="gray")        email.place(x=150, y=180)
        self.email = Entry(frame1, font=("times new roman", 15), bg="lightgray")
self.email.place(x=400, y=180, width=250)

        # ==========Password Text And Field=========
        passw = Label(frame1, text="Password", font=("time new roman", 15, "bold"),
bg="white", fg="gray")
        passw.place(x=150, y=230)
        self.passw = Entry(frame1, font=("times new roman", 15), bg="lightgray")
self.passw.place(x=400, y=230, width=250)

        #_____________________________________________________________________
        #----------------------Buttons---------------------------------        #-----------------------
---------------------------------------

        # =====Regester or Signin button======


        # =======Singin Button======
        self.signin_btn =
ImageTk.PhotoImage(file="Sign_In.png")        sigin =
Button(frame1,image=self.signin_btn,activebackground="#ffffff",command=self.log_in,b
d=0,bg="#ff ffff",cursor="hand2")
        sigin.place(x=265, y=300)
        # =======Signup Button======
        self.signup_btn =
ImageTk.PhotoImage(file="Sign_Up.png")        sigup =
Button(self.root,image=self.signup_btn,activebackground="#013c74",command=self.sign
_up,bg="#0
13a71",cursor="hand2",bd=0)
        #sigup.place(x=160,y=500)

        #=======Read More Button======
```

```
        self.read_more = ImageTk.PhotoImage(file="Read_more.png")
        read_more = Button(self.root, text="Read More",activebackground="#013c74",
image=self.read_more, command=self.read_More_page,
bg="#013c74",                          bd=0, cursor="hand2")
        read_more.place(x=220, y=455)

#_____________________________________________________________________________
__________ ____________________________________
#----------------------------------------------BACK END CODE----------------------------------
---------------
-----
#-------------------------------------------------------------------------------------------------------
--------     #========Function for going to sign in page============     def
log_in(self):        if self.email.get()=="" or self.passw.get()=="":
            messagebox.showerror("Error","Please Enter User Name And
Password",parent=self.root)        else:             try:

con=pymysql.connect(host="localhost",user="root",password="",database="aug")
cur=con.cursor()
                cur.execute("select * from adminTab where admin=%s and
password=%s",(self.email.get(),self.passw.get()))

row=cur.fetchone(
)                if
row==None:
                    messagebox.showerror("Error","Invalid User Name and
Password",parent=self.root)                else:

messagebox.showinfo("Success","Welcome",parent=self.root)
self.root.destroy()                    import Admin_panel
con.close()            except Exception as es:
messagebox.showerror("Error",f"Error Due to:
{str(es)}",parent=self.root)

    # =======Function for Going to Sign up
page=======================     def sign_up(self):
self.root.destroy()
        import Admin_Registration


    #====Function to delete current page and jump on Read More
Page=====     def read_More_page(self):
        self.root.destroy()
        import Read_More
```

```
    # ==========function to clear the fields after
success===============     def clear(self):
        self.email.delete(0, END)
        self.passw.delete(0, END)


root=Tk()
obj=Register(ro
ot)
root.mainloop()
```

Admin DashBoard

```
#_____________________________________________________________________
_____________ ____________________________________
#-----------------------------------------Importing Required Package(API)----------------------
---------------
--
#-------------------------------------------------------------------------------------------------
------

import mysql from
PIL import ImageTk
import tkinter as tk
import
mysql.connector
from tkinter import
ttk, filedialog
from xlwt import Workbook

class Register:

#
_____________________________________________________________________
_____________ ____________________________________
# ---------------------------------------------------FRONT END CODE---------------------------
---------------
----
# -------------------------------------------------------------------------------------------------
-------
```

```
    #=====Root
Function===========     def
__init__(self,root):
        self.root=root
self.root.title("ConsoleLancer")
        self.root.geometry("1350x740+0+0")

        # ____________________________________________________________________
        # -------------------------Frame And Background--------------------
        # ----------------------------------------------------------------

        #
============================Frames================================

        # --------------------First Frame-----------------------------------
self.topLeft =
ImageTk.PhotoImage(file="Admin_TopLeft.png")
        topleft = tk.Label(self.root, image=self.topLeft)
topleft.place(x=-2, y=0)

        # --------------------Second Frame-----------------------------
-----        self.left =
ImageTk.PhotoImage(file="Admin_panel_Header.png")
left = tk.Label(self.root, image=self.left)
        left.place(x=300, y=0, width=1050, height=195)

        # --------------------Third Frame---------------------------
------        frame3 =
tk.Frame(self.root,bd=2,bg="#141F23")
frame3.place(x=-5, y=250, width=310, height=547)

        # --------------------Fourth Frame--------------------------------
-        self.frame4 = tk.Frame(self.root,bg="#3b3f42")
        self.frame4.place(x=300, y=195, width=1050, height=547)

        #======================Blank Area [frame
1]=========================

        #-------Connecting To DataBase For Printing Admin Name-------------
mydbadmin = mysql.connector.connect(user="root", password="",
database="aug", host="localhost")
        cursoradmin =
mydbadmin.cursor()        sql =
"SELECT `admin` FROM
`adminTab`"
```

```
        #-----------------------Fetching Admin Name----------
---------------         cursoradmin.execute(sql)
adminName = cursoradmin.fetchone()        for i in
adminName:            x = adminName

        #-----------------Printing Admin Name On Deshboard------------------
        self.admin_Name = tk.Label(self.root, text="%s"%adminName, font=("time new
roman",15,
"bold"), bg="#141F23",
                         fg="#838786")
        self.admin_Name.place(x=75,y=190)

        #-----------------------Sepration Line------------------------
-----        self.line = ImageTk.PhotoImage(file="Line.png")
        line = tk.Label(self.root, image=self.line,bg="#293f4c", width=260)
line.place(x=20, y=230)

        '''This frame is holding Admin Menu bar Title'''

        #=====================Admin Panel Heading [Frame
2]================
        '''This frame is containing Header. Which is already decleared & initialized in above
code'''

        #=====================Button Area [Frame
3]=======================

        #-------------Creating and placing  Show Feature
Button---------------         self.show =
ImageTk.PhotoImage(file="Feature.png")        self.show2 =
tk.Button(frame3,image=self.show,activebackground="#172637",width=400,bg="#1a262
b", command=self.show_Feature, bd=0, cursor="hand2")
        self.show2.place(x=-100, y=25)


        #------------------Creating User Information button------------------
        self.user_Info_btt = tk.Button(frame3, text="User
Info",activebackground="#172637",font=("time new
roman",15,"bold"),fg="white",bg="#1a262b", command=self.user_Info, bd=0,
cursor="hand2")


        #-----Creating Download button for Downloading user
information-------         self.show5 =
ImageTk.PhotoImage(file="Feature.png")        self.download_btt
=
```

```
tk.Button(frame3,text="Download",activebackground="#172637",font=("time new
roman",15,"bold"),fg="white",bg="#293f4c", command=self.download, bd=0,
cursor="hand2")        self.download1_btt = tk.Button(frame3, text="- Download
Info",activebackground="#172637", font=("time new roman", 15, "bold"), fg="white",
                                bg="#293f4c", command=self.download1, bd=0, cursor="hand2")

        #--------------------Creating Sign out button-------------------------
self.admin_Sign_out_btt = tk.Button(frame3, text="Sign Out",
activebackground="#172637",font=("time new
roman",15,"bold"),fg="white",bg="#293f4c",command=self.sign_out,bd=0,
cursor="hand2")

        #----------------------Creating hide button--------------------------
-        self.show5 =
ImageTk.PhotoImage(file="Hide_Feature.png")
        self.hide = tk.Button(frame3,image=self.show5,activebackground="#172637",
font=("time new roman", 15, "bold"), fg="white",width=400,bg="#1a262b",
                        command=self.hide_Feature, bd=0, cursor="hand2")

        #=========================Download
Info================================

        #------------Creating button for downloading all details---------------
self.download_All_btt = tk.Button(frame3,
text="All",activebackground="#172637",command=self.user_All, font=("time new
roman", 15,
"bold"),
                                fg="white", bg="#293f4c", bd=0, cursor="hand2")

        #-------------Creating button for downloading name of users-------------
        self.download_Name_btt = tk.Button(frame3,
text="Name",activebackground="#172637", font=("time new roman", 15, "bold"),
                                fg="white", bg="#293f4c", command=self.user_Name, bd=0,
cursor="hand2")

        #------------Creating button for downloading number -------------------
        self.download_Number_btt = tk.Button(frame3,
text="Number",activebackground="#172637", font=("time new roman", 15, "bold"),
                                fg="white", bg="#293f4c", command=self.user_Number, bd=0,
cursor="hand2")

        #------------Creating button for downloading numbers-------------------
        self.download_Id_btt = tk.Button(frame3, text="User
ID",activebackground="#172637", font=("time new roman", 15, "bold"), fg="white",
                                bg="#293f4c", command=self.user_ID, bd=0, cursor="hand2")
```

```
        # ====================Description Area [Frame
4]====================

        #----------------Placing Headig in frame 4 --------------------------
        self.title = tk.Label(self.frame4, text="USER INFORMATION",font=("time new
roman", 20, "bold"), bg="#3b3f42" , fg="white")

        #-----------------Placing default image in frame 4 --------------------
self.welcomeimg = ImageTk.PhotoImage(file="Admin_Welcome.png")
self.welcome = tk.Label(self.frame4,
image=self.welcomeimg,bg="#3b3f42" )        self.welcome.place(x=300,
y=50)

        '''Form 4 code is working for Back End'''
#
____________________________________________________________________________________________ ____________________________________
# ----------------------------------------------BACK END CODE-----------------------------------
--------------
------
# ------------------------------------------------------------------------------------------------------
---------

    #========================Creating function for showing
feature==================     def show_Feature(self):
        self.show2.place_forget()
        self.hide.place(x=-100, y=25)

        self.admin_Sign_out_btt.place(x=85, y=60)
self.user_Info_btt.place(x=85, y=95)
self.download_btt.place(x=70, y=130)


    def download(self):
self.download_btt.place_forget()
        self.download1_btt.place(x=70, y=130)

        self.download_All_btt.place(x=100,y=165)
self.download_Name_btt.place(x=100,y=200)
self.download_Number_btt.place(x=100, y=235)
self.download_Id_btt.place(x=100,y=270)
```

```
    def download1(self):
self.download1_btt.place_forget()
        self.download_btt.place(x=70, y=130)

        self.download_All_btt.place_forget()
self.download_Name_btt.place_forget()
self.download_Number_btt.place_forget()
self.download_Id_btt.place_forget()

    def hide_Feature(self):
self.hide.place_forget()
self.show2.place(x=-100, y=25)
self.user_Info_btt.place_forget()
self.download_btt.place_forget()
self.admin_Sign_out_btt.place_forg
et()
self.download1_btt.place_forget()
self.download_All_btt.place_forget(
)
self.download_Name_btt.place_forg
et()
self.download_Number_btt.place_fo
rget()
self.download_Id_btt.place_forget()


#=========================Function for User
Registration================     def user_Info(self):
self.welcome.place_forget()        self.title.place(x=400, y=80)
        mydb = mysql.connector.connect(user="root", password ="", database="aug",
host="localhost")         cursor = mydb.cursor()
        sql = "SELECT `first_name`, `last_name`, `phone_no`, `mail` FROM `user`"


cursor.execute(s
ql)        rows =
cursor.fetchall()
        total = cursor.rowcount

        tv = ttk.Treeview(self.frame4, columns = (1,2,3,4), show = "headings", height ="8")
tv.place(x=120,y=150)

        tv.heading(1, text="First Name")
tv.heading(2, text="Last Name")
tv.heading(3, text="Phone Number")
tv.heading(4, text="Email Id")
```

```
        for i in rows:
            tv.insert(', 'end', values = i)

        cursor.close()
        mydb.close

    def        user_All(self):                                                    nameFilePath        =
filedialog.askdirectory(parent=root,initialdir="/path/to/start/",title='Please        select        a
directory')

        if nameFilePath=="":

pass
else:
            #=============================Fetching First
Name================================
            mydb1 = mysql.connector.connect(user="root", password="", database="aug",
host="localhost")
            cursor1 = mydb1.cursor()
            sql = "SELECT `first_name` FROM `user`"


cursor1.execute(sql)
rows1 =
cursor1.fetchall()
#total =
cursor1.rowcount
wb = Workbook()

            sheet1 = wb.add_sheet('Sheet 1')
sheet1.write(0, 0,'First Name')
sheet1.write(0, 1, 'Last Name')
sheet1.write(0, 2, 'Phone Number')
sheet1.write(0, 3, 'Gmail ID')


row_no1 =
1
for i in
rows1:
                sheet1.write(row_no1, 0, "%s" % i)  # 1 is used for
rows                row_no1 = row_no1 + 1
            cursor1.close()
            mydb1.close()
```

```
	#=========================Fetching  Last Name
==============================
	mydb2 = mysql.connector.connect(user="root", password="", database="aug",
host="localhost")
	cursor2 = mydb2.cursor()
	sql = "SELECT `last_name` FROM `user`"


cursor2.execute(sql)
rows2 =
cursor2.fetchall()
row_no2 = 1
for j in rows2:
		sheet1.write(row_no2, 1, "%s" % j)  # 1 is used for
rows		row_no2 = row_no2 + 1
	cursor2.close()
	mydb2.close()

	#==========================Fetching
Number========================================
	mydb3 = mysql.connector.connect(user="root", password="", database="aug",
host="localhost")
	cursor3 = mydb3.cursor()
	sql = "SELECT `phone_no` FROM `user`"

	cursor3.execute(sql)
	rows3 = cursor3.fetchall()


row_no3 =
1
for j in
rows3:
		sheet1.write(row_no3, 2, "%s" % j)  # 1 is used for
rows		row_no3 = row_no3 + 1
	cursor3.close()
	mydb3.close()

	#============================Fetching Gmail
ID===================================

	mydb4 = mysql.connector.connect(user="root", password="", database="aug",
host="localhost")
	cursor4 = mydb4.cursor()
	sql = "SELECT `mail` FROM `user`"
```

```
        cursor4.execute(sql)
        rows4 = cursor4.fetchall()


row_no4 =
1
for j in
rows4:
            sheet1.write(row_no4, 3, "%s" % j)  # 1 is used for
rows            row_no4 = row_no4 + 1
        cursor4.close()
mydb4.close()
        wb.save('%s/All Information.xls' % nameFilePath)

   def user_Name(self):        nameFilePath =
filedialog.askdirectory(parent=root,initialdir="/path/to/start/",title='Please select a
directory')

      if nameFilePath=="":

pass
else:
        mydb1 = mysql.connector.connect(user="root", password="", database="aug",
host="localhost")
        cursor1 = mydb1.cursor()
        sql = "SELECT `first_name` FROM `user`"


cursor1.execute(sql)
rows =
cursor1.fetchall()
total =
cursor1.rowcount
        wb = Workbook()

        sheet1 =
wb.add_sheet('Sheet 1')
row_no =1           for i in
rows:
            sheet1.write(row_no,0,"%s"% i)  # 1 is used for
rows            row_no = row_no + 1
        cursor1.close()
        mydb1.close()

        mydb2 = mysql.connector.connect(user="root", password="", database="aug",
host="localhost")
```

```
        cursor2 = mydb2.cursor()
        sql = "SELECT `last_name` FROM `user`"

        cursor2.execute(sql)
        rows2 = cursor2.fetchall()


row_no1 =
1
for j in
rows2:
            sheet1.write(row_no1,1, "%s" % j)  # 1 is used for
rows              row_no1 = row_no1 + 1
        cursor2.close()
mydb2.close()
        wb.save('%s/User_Name.xls' % nameFilePath)

    def user_Number(self):

        numberFilePath =
filedialog.askdirectory(parent=root,initialdir="/path/to/start/",title='Please select a
directory')

        if numberFilePath=="":
            pass
        else:

        mydb3 = mysql.connector.connect(user="root", password="", database="aug",
host="localhost")
        cursor3 = mydb3.cursor()
        sql = "SELECT `phone_no` FROM `user`"


cursor3.execute(sql)
rows3 =
cursor3.fetchall()
total =
cursor3.rowcount
        wb = Workbook()

        sheet3 =
wb.add_sheet('Sheet 1')
row_no = 1          for i in
rows3:
            sheet3.write(row_no, 0, "%s" % i)  # 1 is used for
rows              row_no = row_no + 1
```

```
        cursor3.close()
        mydb3.close()
        wb.save('%s/User_Number.xls' % numberFilePath)

    def user_ID(self):

        idFilePath =
filedialog.askdirectory(parent=root,initialdir="/path/to/start/",title='Please select a
directory')

        if idFilePath == "":

pass
else:

        mydb4 = mysql.connector.connect(user="root", password="", database="aug",
host="localhost")
        cursor4 = mydb4.cursor()
        sql = "SELECT `mail` FROM `user`"


cursor4.execute(sql)
rows4 =
cursor4.fetchall()
total =
cursor4.rowcount
wb = Workbook()

        sheet1 =
wb.add_sheet('Sheet 1')
row_no = 1          for i in
rows4:
            sheet1.write(row_no, 0, "%s" % i)  # 1 is
used for rows              row_no = row_no + 1
cursor4.close()
        mydb4.close()

        wb.save('%s/User_ID.xls' % idFilePath)

#==================This function is working for
achiving Logout Functionality==================
def sign_out(self):        self.root.destroy()
        import Admin_login
```

```
root= tk.Tk()
obj=Register(root)
root.resizable(False
, False)
root.mainloop()
```

User Registration

```
#_____
_____ _____
#----------Importing Required Package(API)----------
---------------
--
#-------------------------------------------------------------------------------------------------------
-------- from tkinter import Label

from PIL import ImageTk
```

```
from tkinter import ttk, messagebox, Frame, Entry, CENTER, IntVar, Checkbutton,
Button, END, Tk import pymysql class Register: #
_____________________________________________________________________________
___________ ____________________________________
# ----------------------------------------------------FRONT END CODE---------------------------
---------------
----
# ------------------------------------------------------------------------------------------------------
-------


    def __init__(self,root):
self.root=root
self.root.title("ConsoleLancer
")
self.root.geometry("1600x75
0+0+0")
        # ____________________________________________________________________
        # -------------------------Frame And Background-------------------
        # ---------------------------------------------------------------

        #main-Background
        self.bg=ImageTk.PhotoImage(file="bg.png")
        bg=Label(self.root,image=self.bg).place(x=0,y=0,relwidth=1,relheight=1)

        #Sub-Background
        self.left=ImageTk.PhotoImage(file="Sub_bg.png")
        left=Label(self.root,image=self.left).place(x=80,y=100,width=400,height=500)

        #===Register freame===
frame1=Frame(self.root,bg="white")
        frame1.place(x=480,y=100,width=800,height=500)

        #=====Form Area =====
        title=Label(frame1,text="USER SIGN UP", font=("time new roman",20,"bold")
,bg="white"
,fg="#838786")
        title.place(x=300,y=50
        )

        # ____________________________________________________________________
        # ---------------Entry feilds and Headings -----------------------
        # ---------------------------------------------------------------

        # =======First Name Text And Field===========
```

```
f_name = Label(frame1, text="First Name", font=("time new roman", 15, "bold"),
bg="white", fg="gray")
f_name.place(x=120, y=100)
self.fname = Entry(frame1, font=("times new roman", 15), bg="lightgray")
self.fname.place(x=120, y=130, width=250)

# ==========Last Name Text And Field=========
l_name = Label(frame1, text="Last Name", font=("time new roman", 15, "bold"),
bg="white", fg="gray")
l_name.place(x=440, y=100)
self.lname = Entry(frame1, font=("times new roman", 15), bg="lightgray")
self.lname.place(x=440, y=130, width=250)

# =======Contact No.===========
contact = Label(frame1, text="Contact No", font=("time new roman", 15, "bold"),
bg="white", fg="gray").place(          x=120, y=170)
self.contact = Entry(frame1, font=("times new roman", 15), bg="lightgray")
self.contact.place(x=120, y=200, width=250)

# ==========E-Mail Id=========
E_mail = Label(frame1, text="E-Mail ID", font=("time new roman", 15, "bold"),
bg="white", fg="gray").place(          x=440, y=170)
self.e_mail = Entry(frame1, font=("times new roman", 15), bg="lightgray")
self.e_mail.place(x=440, y=200, width=250)

# =======Security Quistion.===========
ques = Label(frame1, text="Security Question", font=("time new roman", 15,
"bold"), bg="white",
            fg="gray").place(x=120, y=240)
# ======Combo Box===============
self.select = ttk.Combobox(frame1, font=("times new roman", 15), state='readonly',
justify=CENTER)
self.select['values'] = ("select", "Your first place ", "Your Best
friend Name ",)      self.select.place(x=120, y=270, width=250)
self.select.current(0)

# ==========Asnwer ========= ans = Label(frame1, text="Answer",
font=("time new roman", 15, "bold"), bg="white", fg="gray").place(
x=440, y=240)
self.ans = Entry(frame1, font=("times new roman", 15), bg="lightgray")
self.ans.place(x=440, y=270, width=250)

# =====Password=====
psw = Label(frame1, text="Password", font=("time new roman", 15, "bold"),
bg="white", fg="gray").place(x=440, y=310)
```

```
        self.psw = Entry(frame1, font=("times new roman", 15), bg="lightgray")
self.psw.place(x=120, y=340, width=250)

        # =======Confirm Password===========
        cpsw = Label(frame1, text="Comfirm Password", font=("time new roman",
15, "bold"), bg="white", fg="gray")         cpsw.place(x=120, y=310)
        self.cpsw = Entry(frame1, font=("times new roman", 15), bg="lightgray")
self.cpsw.place(x=440, y=340, width=250)

        # =====Check Box===========
        self.check=IntVar()
        chk = Checkbutton(frame1, text="I Agree with details",
variable=self.check, onvalue=1, offvalue=0, bg="white",font=("time new
roman", 12))         chk.place(x=120, y=380)

        # ____________________________________________________________________
        # ------------------------Buttons----------------------
-------------        # ----------------------------------------
------------------------

        # =====Regester button======

        #=======Singin Button======
        self.signin_btn =
ImageTk.PhotoImage(file="Sign_In.png")         sigin =
Button(self.root,image=self.signin_btn,activebackground="#013a71",command=self.sign
_in,bg="#01 3a71",bd=0,cursor="hand2").place(x=160,y=500)

        #=======Singup Button======
        self.signup_btn = ImageTk.PhotoImage(file="Sign_Up.png")         sigup =
Button(frame1,
image=self.signup_btn,cursor="hand2",activebackground="#ffffff",bd=0,bg="#ffffff",co
mmand=self.
register_data)
        sigup.place(x=280, y=420)

        # =======Read More Button======
        self.read_more =
        ImageTk.PhotoImage(file="Read_more.png") read_more =
        Button(self.root, text="Read
        More",activebackground="#013c74",image=self.read_more,
command=self.read_More_page,bg="#013c74", bd=0, cursor="hand2").place(x=220,
y=455)

#
```

```
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# ----------------------------------------------BACK END CODE----------------------------------
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# ------------------------------------------------------------------------------------------------
---------

   #==========Function for regestration form data insertion and
fetch=========     def register_data(self):        if self.fname.get()=="" or
self.lname.get()=="" or self.contact.get()==""or self.e_mail.get()==""or
self.select.get()==""or self.ans.get()==""or self.psw.get()==""or
self.cpsw.get()==":             messagebox.showerror("Error","All fields are
required ",parent=self.root)        elif self.psw.get()!=self.cpsw.get():
            messagebox.showerror("Error", "Password must be same ",
parent=self.root)        elif self.check.get()==0:
messagebox.showerror("Error", "agree check our tems and condition ",
parent=self.root)        else:             try:

con=pymysql.connect(host="localhost",user="root",password="",database="aug")
cur=con.cursor()
            cur.execute("select * from user where phone_no=%s",
self.contact.get())                prow = cur.fetchone()
            cur.execute("select * from user where mail=%s", self.e_mail.get())
row=cur.fetchone()                if row!=None or prow!=None:
messagebox.showerror("Error", "Email or phone no already registered try with another
one ", parent=self.root)                else:
                cur.execute("insert into
user(first_name,last_name,phone_no,mail,Ques,answer,password)
values(%s,%s,%s,%s,%s,%s,%s)",
                    (

self.fname.get(),
self.lname.get(),
self.contact.get(),
self.e_mail.get(),
self.select.get(),
self.ans.get(),
self.psw.get(),
                    ))
                con.commit() #Data
Inserted                    con.close()
#connection closed
                messagebox.showinfo("success", "Register Success",parent=self.root)
                self.clear()                    self.root.destroy()
import Aug            except Exception as es:
```

```
messagebox.showerror("Error",f"Error Due to {str(es)}",
parent=self.root)

        # =======Function for going to sign in page======

    # =======Function for going to sign in
page======     def sign_in(self):
self.root.destroy()
        import User_Login

    # ==========function to clear the fields after
success===============     def clear(self):
        self.fname.delete(0, END)
self.lname.delete(0, END)
self.contact.delete(0, END)
self.e_mail.delete(0, END)
self.ans.delete(0,END)
self.cpsw.delete(0,END)
self.select.current(0)
        self.psw.delete(0, END)

    # ====Function to delete current page and jump on Read More
Page========     def read_More_page(self):
        self.root.destroy()
        import Read_More


root=Tk()
obj=Register(ro
ot)
root.mainloop()
```

User Login

```
#_____________________________________________________________________________
___________ ____________________________________
#-----------------------------------------Importing Required Package(API)----------------------
---------------
--
#-------------------------------------------------------------------------------------------------
------
```

```
from tkinter import
* from PIL import
ImageTk from
tkinter import
messagebox import
pymysql class
Register: #
_____________________________________________________________________________________
# ----------------------------------------------------FRONT END CODE---------------------------
---------------
----
# ------------------------------------------------------------------------------------------------------
-------


    #=====Root
Function===========
def __init__(self,root):
self.root=root
self.root.title("ConsoleLancer
")
self.root.geometry("1600x75
0+0+0")
        # ____________________________________________________________________
        # -------------------------Frame And Background------
-------------        # ---------------------------------------------
------------------
        #===========main-Background=============
self.bg=ImageTk.PhotoImage(file="bg.png")
        bg=Label(self.root,image=self.bg).place(x=0,y=0,relwidth=1,relheight=1)

        #===========Sub-Background==============
self.left=ImageTk.PhotoImage(file="Sub_bg.png")
        left=Label(self.root,image=self.left).place(x=80,y=100,width=400,height=500)

        #===========Register freame==============
frame1=Frame(self.root,bg="white")
        frame1.place(x=480,y=100,width=800,height=500)

        #============Form Area ==================
title=Label(frame1,text="USER SIGN IN", font=("time new
roman",20,"bold"),bg="white",fg="#838786")        title.place(x=270,y=100)

        # ____________________________________________________________________
        # ---------------Entry feilds and Headings -----------------------
```

```
        # ------------------------------------------------------------

        #=======E-mail or Number Text And Field===
        email = Label(frame1, text="E-Mail Or Number", font=("time new roman",
15, "bold"), bg="white", fg="gray")        email.place(x=150, y=180)
        self.email = Entry(frame1, font=("times new roman", 15), bg="lightgray")
self.email.place(x=400, y=180, width=250)

        #==========Password Text And Field=========
        passw = Label(frame1, text="Password", font=("time new roman", 15, "bold"),
bg="white", fg="gray")
        passw.place(x=150, y=230)
        self.passw = Entry(frame1, font=("times new roman", 15), bg="lightgray")
self.passw.place(x=400, y=230, width=250)

        # ____________________________________________________________________
        # ------------------------Buttons----------------------
-------------        # ----------------------------------------
------------------------

        #=======Signup Button======
        self.signin_btn =
ImageTk.PhotoImage(file="Sign_In.png")        sigin =
Button(frame1,image=self.signin_btn,activebackground="white",command=self.log_in,b
g="#ffffff",b d=0,cursor="hand2")
        sigin.place(x=265, y=300)
        #=======Singin Button======
        self.signup_btn =
ImageTk.PhotoImage(file="Sign_Up.png")        sigup =
Button(self.root,image=self.signup_btn,activebackground="#013c74",command=self.sign
_up,bg="#0
13a71",cursor="hand2",bd=0)
        sigup.place(x=160, y=500)

        # =======Read More Button======
        self.read_more = ImageTk.PhotoImage(file="Read_more.png")
        read_more = Button(self.root,image=self.read_more,activebackground="#013c74",
command=self.read_More_page, bg="#013c74",
                        bd=0, cursor="hand2").place(x=220, y=455)

#_____________________________________________________________________________
___________ ____________________________________
#----------------------------------------------BACK END CODE-----------------------------------
-------------------
#-----------------------------------------------------------------------------------------------------
--------
```

```
    #=======Function for Going to Sign up
page============     def sign_up(self):
self.root.destroy()
        import User_Registration

    #========Function for going to sign in
page=============     def log_in(self):        if
self.email.get()=="" or self.passw.get()==="":
            messagebox.showerror("Error","Please Enter User Name And
Password",parent=self.root)        else:            try:

con=pymysql.connect(host="localhost",user="root",password="",database="aug")
cur=con.cursor()
                cur.execute("select * from user where mail=%s and
password=%s",(self.email.get(),self.passw.get()))

row=cur.fetchone(
)                if
row==None:
                    messagebox.showerror("Error","Invalid User Name and
Password",parent=self.root)                else:

messagebox.showinfo("Success","Welcome",parent=self.root)
self.root.destroy()                    import Aug                    con.close()
except Exception as es:
messagebox.showerror("Error",f"Error Due to:
{str(es)}",parent=self.root)

    #==========function to clear the fields after
success===============     def clear(self):
self.email.delete(0, END)
        self.passw.delete(0, END)

    # ====Function to delete current page and jump on Read More
Page=====     def read_More_page(self):
        self.root.destroy()
        import Read_More



root=Tk()
obj=Register(ro
ot)
root.mainloop()
```

User DashBoard

```
#----------!!!_This is the main window where main operation are going to perform_!!!-----
---------------
------
#_____________________________________________________________________________
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#===================================Importing required
libraries=============================================
#-------------------------------------------------------------------------------------------------------
--

from tkinter.ttk import Label, Button
from tkinter import StringVar, Checkbutton, Tk, Label, Button,
messagebox from PIL import Image,ImageTk from tkinter
import filedialog from tkinter import simpledialog
import
random
import
cv2
import
numpy
as np
import os                                   #___Note:-  {This Library is used to create folder}


#_____________________________________________________________________________
__________ _________________________
#===================================Creating
class=========================================================
#-----------------------------------------------------------------------------------------------------


class Register:
#_____________________________________________________________________________
__________
_____________________________
                    #=======creation function to wrape all task===============
#-----------------------------------------------------------------------------------------------------
----------     def __init__(self, root):

        self.root = root
self.root.title("ConsoleLancer")
```

```
        self.root.geometry("1600x750+0+0")

#==================================================================
========
==================================
#_____________________________________BACK END
CODE_____________________________________________________
#---------------------This Code is inderectly cennected with front end code---------------------
---------
#==================================================================
======== ==================================


    #==========Creating function for taking sample number from
user====================        def Sample_Number():

            global Sample_Number_R
            USER_INP = simpledialog.askstring(title="Test", prompt="Please Enter The
Number of Sample You want")
            Temp_value=USER_INP
            Sample_Number_R = int(Temp_value)

    #============Creating Variable for Checking Condition of Download
button================
        self.file
= 0
self.path = 0
self.filter = 0
        #-----------------Variable For Checking Default Displaye Image ------------
self.sample_Image = 0

    #======================Creating
function to upload
file==================================
==        def Upload_file():            self.filename =
0
            self.filename = filedialog.askopenfilename(initialdir='/guis', title="Open An
Image File",                                        filetypes=(("PNG File", "*.png"),
("All Files", "*.*")))            #----------Passing Filename Address in sel.file variable
for if condition -----------------            self.file = self.filename
self.sample_Image = self.filename
            self.filename1 = self.filename2 = self.filename

            #-----Resizing Sample image in 700x270-----------
--            my_image = Image.open(self.filename1)
```

```
        resized = my_image.resize((700, 270), Image.ANTIALIAS)
self.my_image1 = ImageTk.PhotoImage(resized)

        #---------Resizing Image in 220x220----------------
my_image1 = Image.open(self.filename2)
        resized1 = my_image1.resize((220, 220), Image.ANTIALIAS)
self.my_image2 = ImageTk.PhotoImage(resized1)
        self.Filter_user_Sample = Label(root, image=self.my_image2)

        # ----------Placing Sample Image as Default view-----
        self.default_User_sample = Label(root, image=self.my_image1)

        if self.filename == 0:
            self.default_User_sample.place(x=310, y=280)



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:
            cv2.imread(Hide_the_chk_buttons())
self.default_User_sample.place_forget()
self.default_User_sample.place(x=310, y=280)



        # ------Asking user for number of sample-----------
        cv2.imread(Sample_Number())  # --Asking user for number of sample

    #==============Creating function for Setting
Path=================        def savefile():            global
filepath
        filepath = filedialog.askdirectory()
        self.path = filepath

    #=============Creating Function to create new
folder==============        def createFolder(directory):   #
Creating function to create New Folder            try:                if not
os.path.exists(directory):                    os.makedirs(directory)
except OSError:                print('Error: Creating directory. ' +
directory)
```

#_____
_____ ____
#=======Filter:- Creating Filters To Generate Varius Sample of Data==========
#----------

#=========Creating Function for Resize Filter========== def Resize_filter():
global resize_Sample_number
resize_Sample_number = Sample_Number_R if Resize_variable.get() == "Resize":
Sample_folder = createFolder('%s/Resize_Effect_Sample/' % (filepath)) #Calling function to create Folder
import cv2

for resize_Loop in range(0, resize_Sample_number): # Creating loop img = cv2.imread(self.filename) # calling user input image w = random.randint(80, 1000) # passing random value for ramdom width h = random.randint(80, 1000) # passing random value for ramdom width
width, height = w, h # Passing x and y in height and width
imageresize = cv2.resize(img, (width, height)) # passing Loop width and height image in variable
cv2.imwrite('%s/Resize_Effect_Sample/%s.jpg' % (filepath, resize_Loop+1), imageresize) # Saving image at specific path
----Note:- This code is working properly----------

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# ==========Invert Filter ========== def Invert_filter():
if Invert_variable.get() == "invert":
import cv2
global invert_Sample_number
invert_Sample_number = Sample_Number_R
Sample_folder = createFolder('%s/Invert_Effect_Sample/' % (filepath)) # Calling function to create Folder

def invert_image():
image = cv2.imread(self.filename)
image1 = cv2.bitwise_not(image)

```
                cv2.imwrite('%s/Invert_Effect_Sample/0.jpg' % (filepath),image1)  # Saving
Byte change inverted image

                for invert_loop in
range(0,invert_Sample_number):
channel = random.uniform(0,481)
image2 = (channel - image)
                    cv2.imwrite('%s/Invert_Effect_Sample/%s.jpg' % (filepath,
invert_loop+1), image2)
#Saving inverted image generated by random value
            cv2.imread(invert_image())
    #--------------Note:- This Code is Working Properly-
---------------            else:                pass

       # =========Flip
filter===============        def
Flip_filter():

          if Flip_variable.get() == "flip":
            Sample_folder = createFolder('%s/Flip_Effect_Sample/' % (filepath))  # Calling
function to create Folder
            import cv2
            originalImage = cv2.imread(self.filename)  # Taking Image For
Generating Sample                flipv = cv2.flip(originalImage, 1)  # Generating
Sample              flipbv = cv2.flip(originalImage, -0)              flipbh =
cv2.flip(originalImage, -1)

            cv2.imwrite('%s/Flip_Effect_Sample/1.jpg' % (filepath,), originalImage)  #
Saving Generated Image
            cv2.imwrite('%s/Flip_Effect_Sample/2.jpg' %
(filepath), flipv)
cv2.imwrite('%s/Flip_Effect_Sample/3.jpg' % (filepath),
flipbv)              cv2.imwrite('%s/Flip_Effect_Sample/4.jpg'
% (filepath), flipbh)            else:                pass
    # --------------Note:- This Code is working properly-------------------------

   # ===============rotate filter
=====================        def Rotate_filter():

          if Rotate_variable.get() == "rotate":
            Sample_folder  =  createFolder('%s/Rotate_Effect_Sample/'  %  (filepath))    #
Calling function to create Folder                import cv2
            originalImage = cv2.imread(self.filename)  # Taking Image For Generating
Sample
```

```
            img_rotate = cv2.rotate(originalImage, cv2.ROTATE_90_CLOCKWISE)  #
Generating Sample
            img_rotate90 = cv2.rotate(originalImage,
cv2.ROTATE_90_COUNTERCLOCKWISE)                img_rotate180 =
cv2.rotate(originalImage, cv2.ROTATE_180)

            cv2.imwrite('%s/Rotate_Effect_Sample/1.jpg' % (filepath), originalImage)  #
Saving Generated Sample
            cv2.imwrite('%s/Rotate_Effect_Sample/2.jpg' % (filepath),
img_rotate)                cv2.imwrite('%s/Rotate_Effect_Sample/3.jpg' %
(filepath), img_rotate90)
cv2.imwrite('%s/Rotate_Effect_Sample/4.jpg' % (filepath),
img_rotate180)     # ------------------Note:- This filter is working properly--
------------------

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   #==========Creating function for Hue
Filter==============         def Hue_filter():            if
Hue_variable.get()=="hue":
            Sample_folder = createFolder('%s/Hue_Effect_Sample/' % (filepath))  # Calling
function to create Folder

            global hue_Sample_number
hue_Sample_number = Sample_Number_R
def hue_image():

                image = cv2.imread(self.filename)       #Taking Sample

                for name in range(1, hue_Sample_number + 1):                    saturation =
random.randint(5,5001)    #Passing Random number for Diffrent Sample
hue_Efec = random.randint(10, 1000)
                  image = cv2.cvtColor(image,
cv2.COLOR_BGR2HSV)                    v = image[:,:,2]
                  v = np.where(v <= hue_Efec + saturation, v - saturation,
hue_Efec)                    image[:, :, 2] = v
                  image = cv2.cvtColor(image, cv2.COLOR_HSV2BGR)

                cv2.imwrite('%s/Hue_Effect_Sample/%s.jpg' % (filepath,name1), image)
```

for name1 in range(1,hue_Sample_number+1):
hue_image()

#----------Note:- This Code Is Working Properly----------

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#==========Creating function for Light Filter========== def Light_filter(): if Light_filter_variable.get() == "light":
Sample_folder = createFolder('%s/Light_Effect_Sample/' % (filepath)) # Calling function to create Folder
global light_Filter_Sample_number
light_Filter_Sample_number = Sample_Number_R import cv2
import numpy as np def add_light():
image = cv2.imread(self.filename) # Taking Sample

#for name in range(1, light_Filter_Sample_number + 1):

gamma = random.uniform(-90,90) # Passing Random number for Diffrent Sample if gamma==0: gamma=gamma+1
invGamma = 1.0 / gamma
table = np.array([((i / 255.0) ** invGamma) * 255 for i in np.arange(0.5, 256)]).astype("uint8")
image1 = cv2.LUT(image, table)
if gamma >= 1:
cv2.imwrite('%s/Light_Effect_Sample/%s.jpg' % (filepath,name), image1) else:
cv2.imwrite('%s/Light_Effect_Sample/%s.jpg' % (filepath,name), image1) for name in range(1, light_Filter_Sample_number + 1):
add_light()
#----------Note:- This Code is working properly---------- else: pass

#==========Creating Function for Light Color Filter========== def Light_color_filter(): if Light_color_filters_variable.get() == "lColor":

```
            Sample_folder = createFolder('%s/Light_color_Effect_Sample/' % (filepath))  #
Calling function to create Folder
            global light_Color_Sample_number
            light_Color_Sample_number =
Sample_Number_R                import cv2
            import numpy as np

            def add_light_color():
                image = cv2.imread(self.filename)  # Taking Sample
gamma = random.uniform(0.1, 2.1)  # Passing Random number for Diffrent Sample
color = random.randint(50, 250)  # Passing Random number for Diffrent Sample
invGamma = 1.0 / gamma                    image = (color - image)                    table =
np.array([((i / 255.0) ** invGamma) * 255                                for i in
np.arange(0, 256)]).astype("uint8")

                image = cv2.LUT(image, table)                    if gamma >= 1:
cv2.imwrite('%s/Light_color_Effect_Sample/%s.jpg' % (filepath, name),image)

else:
                    cv2.imwrite('%s/Light_color_Effect_Sample/%s.jpg' % (filepath, name),
image)

            for name in range(1, light_Color_Sample_number + 1):
                add_light_color()

   #-------------Note:- This Code is working properly--------------
---------------            else:                pass

   #===========Creating Fucntion for Seturation
Filter================        def Seturate_filter():            if
Seturate_variable.get()=="Seturate_Image":
            Sample_folder = createFolder('%s/Seturate_Effect_Sample/' % (filepath))  #
Calling function to create Folder
            global Seturation_Sample_number
            Seturation_Sample_number =
Sample_Number_R                import cv2
            import
numpy as np
def
saturation_image():
                #image = cv2.imread(self.filename)  #
Taking Sample                    for name in range(1,
Seturation_Sample_number + 1):                    image =
cv2.imread(self.filename)
                    saturation = random.randint(5,400)  # Passing Random number for
Diffrent Sample                    saturation1 = random.randint(5, 400)
```

```
                    image = cv2.cvtColor(image, cv2.COLOR_BGR2HSV)

                    v = image[:, :, 2]
                    v = np.where(v <= saturation1 - saturation, v + saturation,
saturation1)                    image[:, :, 2] = v

                    image = cv2.cvtColor(image, cv2.COLOR_HSV2BGR)
                    cv2.imwrite('%s/Seturate_Effect_Sample/%s.jpg' % (filepath,name),
image)                    cv2.imshow("w",image)

                  #for name in range(1, Seturation_Sample_number + 1):
                    #cv2.imwrite('%s/Seturate_Effect_Sample/%s.jpg' % (filepath, name),
image)                saturation_image()
   #-----------------Note:- This Code is working properly----------------
   #??????????????Note:- But Generating only One Image Need
To Work on Loop?????????????????            else:                pass

   #========Creating Function for Gray
Scale Image
Filter============================
=========        def Gray_scale_Filter():
if Gray_scale_variable.get() == "Gray":
              Sample_folder = createFolder(
                    '%s/Rectangle_covered_Sample/' % (filepath))  # Calling function to
create Folder                global gray_Scale_Sample_number
gray_Scale_Sample_number = Sample_Number_R                for name in range(1,
gray_Scale_Sample_number + 1):
                  image =
cv2.imread(self.filename)
height, width = image.shape[:2]
height_value = random.randint(10, 50)
width_value = random.randint(10, 50)
position_x = random.randint(50, height)
position_y = random.randint(50, width)
color3 = random.randint(50, 200)
color1 = random.randint(50, 200)
color2 = random.randint(50, 200)

                  cv2.rectangle(image, pt1=(position_y, position_x), pt2=(height_value,
width_value),                          color=(color1, color2, color3), thickness=-1)
                  cv2.imwrite('%s/Rectangle_covered_Sample/%s.jpg' % (filepath, name),
image)

              # ??????????Note:- Generating only one sample Work on
it?????????????????            else:                pass
```

```
   #==========================Creating Function
for Addepive Filter============================
def Addeptive_gaussian_filter():            if
Addeptive_variable.get()=="addept":
            Sample_folder = createFolder(
               '%s/Addeptive_Effect_Sample/' % (filepath))  # Calling function to create
Folder                import cv2

            global Addeptive_Sample_number
            Addeptive_Sample_number = Sample_Number_R


            def addeptive_gaussian_noise():
image = cv2.imread(self.filename)  # Taking Sample
               Addept_diffs = random.randint(100, 300)  # Passing Random number for
Diffrent Sample:
               Addept_diffh = random.randint(100, 300)  # Passing Random number for
Diffrent Sample:
               Addept_diffv = random.randint(100, 300)  # Passing Random number for
Diffrent Sample:
               h, s, v = cv2.split(image)
               s = cv2.adaptiveThreshold(s, Addept_diffs,
cv2.ADAPTIVE_THRESH_GAUSSIAN_C, cv2.THRESH_BINARY_INV, 11, 2)
               h = cv2.adaptiveThreshold(h,Addept_diffh,
cv2.ADAPTIVE_THRESH_GAUSSIAN_C, cv2.THRESH_BINARY_INV, 11, 2)
               v = cv2.adaptiveThreshold(v, Addept_diffv,
cv2.ADAPTIVE_THRESH_GAUSSIAN_C, cv2.THRESH_BINARY_INV, 11, 2)
               image = cv2.merge([h, s, v])

               cv2.imshow("w", image)
               cv2.imwrite('%s/Addeptive_Effect_Sample/%s.jpg' % (filepath, name),
image)

            for name in range(1, Addeptive_Sample_number + 1):
               addeptive_gaussian_noise()
#???????????????This Code Is Not Generating any sample But Not
Throwing Error As Well????????????????            else:                pass

   #=======================Creating Function
for Contrass
Filter============================         def
Contrass_filter():            if
Contrass_variable.get()=="Contra":
            Sample_folder = createFolder('%s/Contrass_Effect_Sample/' %
(filepath))  # Calling function to create Folder                import cv2
            global contrass_Sample_number
```

```
            contrass_Sample_number = Sample_Number_R


            def contrast_image():

                for name in range(1, contrass_Sample_number + 1):                    image =
cv2.imread(self.filename)  # Taking Sample                    contrast = random.uniform(-
150,199)  # Passing Random number for Diffrent Sample:                    image =
cv2.cvtColor(image, cv2.COLOR_BGR2HSV)                    image[:, :, 2] = [
                    [max(pixel - contrast, 0) if pixel < 190 else min(pixel + contrast, 255)
for pixel in row] for
                    row in image[:, :, 2]]
                image = cv2.cvtColor(image, cv2.COLOR_HSV2BGR)
                cv2.imwrite('%s/Contrass_Effect_Sample/%s.jpg' % (filepath, name),
image)

            contrast_image()

   #????????Note:- This Code Is Taking Too Much Time And Genrating Only one Image
But Workin With out Any Syntax Error?????          else:          pass
   #====================Creating Function for
Edge Canny Filter========================
def Edge_canny_filter():
        if Edge_detect_variable.get()=="cany":
            Sample_folder = createFolder('%s/Edge_Canny_Effect_Sample/' %
(filepath))  # Calling function to create Folder          import cv2
            global edge_cany_Sample_number
edge_cany_Sample_number = Sample_Number_R
def edge_detect_canny_image():

                for name in range(1, edge_cany_Sample_number + 1):
image = cv2.imread(self.filename)  # Taking Sample                    cany_diff1 =
random.randint(0, 100)  # Passing Random number for Diffrent Sample:
cany_diff2 = random.randint(0, 100)  # Passing Random number for Diffrent Sample:
image = cv2.Canny(image,cany_diff1,cany_diff2)
                cv2.imwrite('%s/Edge_Canny_Effect_Sample/%s.jpg' % (filepath, name),
image)



edge_detect_canny_imag
e()          else:
pass
```

```
    #===========Creating Function for Transformation
Filter==================        def Transformation_filter():            if
Transformation_variable.get()=="Transfom":
            Sample_folder = createFolder(
                '%s/Transform_Effect_Sample/' % (filepath))  # Calling function to create
Folder                import cv2
            import numpy as np

            global transformation_Sample_number
            transformation_Sample_number = Sample_Number_R

            def transformation_image():

                for name in range(1, transformation_Sample_number + 1):
                    image = cv2.imread(self.filename)
rows, cols, ch = image.shape                        ptsx1 =
random.randint(0, 500)                      ptsx2 =
random.randint(0, 500)                      pts1 =
np.float32([[ptsx1, ptsx2], [200, 50], [50, 200]])
pts2 = np.float32([[10, 100], [200, 50], [100, 250]])
M = cv2.getAffineTransform(pts1, pts2)
image = cv2.warpAffine(image, M, (cols, rows))

                    cv2.imwrite('%s/Transform_Effect_Sample/%s.jpg' % (filepath, name),
image)


transformation_imag
e()            else:
pass

    #=============Creating Function  for Embossed
Filter====================        def crop():            if
Emboss_variable.get()=="embs":
            Sample_folder = createFolder('%s/Crop_Sample/' % (filepath))  # Calling
function to create
Folder
            import cv2
import numpy as np
global
crop_Sample_number
            crop_Sample_number = Sample_Number_R
            for name in range(1,crop_Sample_number + 1):
                image =
cv2.imread(self.filename)
'''x = random.uniform(.01, .99)
```

```
y = random.uniform(.01, .99)'''
x = random.uniform(.01, .50)
y = random.uniform(.60, .99)

                height, width = image.shape[:2]
                start_row, start_col = int(height * x), int(width * x)

                end_row, end_col = int(height * y), int(width * y)

                cropped = image[start_row:end_row,
start_col:end_col]
cv2.imwrite('%s/Crop_Sample/%s.jpg' % (filepath, name),cropped)
else:               pass
   #================Creating Function
for Translation
Filter==============================
===        def Translation_filter():            if
Translation_variable.get()=="Translation":
            Sample_folder = createFolder(
                '%s/Translation_Effect_Sample/' % (filepath))  # Calling function to
create Folder                import cv2                import numpy as np
            global translation_Sample_number
            translation_Sample_number = Sample_Number_R

            def translation_image():
                image = cv2.imread(self.filename)  # Taking Sample
translation_diff1 = random.uniform(-150,150)  # Passing Random number for Diffrent
Sample:                    translation_diff2 = random.uniform(-150,150)  # Passing
Random number for Diffrent Sample:
                rows, cols, c = image.shape
                M = np.float32([[1,0,translation_diff1], [0,
1,translation_diff2]])                    image = cv2.warpAffine(image, M,
(cols, rows))
                cv2.imwrite('%s/Translation_Effect_Sample/%s.jpg' % (filepath, name),
image)


            for name in range(1,translation_Sample_number + 1):

translation_image()
else:               pass

   #==========creating function for salt Filter=======================
      def Salt_filter():            if
salt_and_paper_variable.get()=="Salt_pap
er":
```

```
            Sample_folder = createFolder(
                '%s/Salt_Effect_Sample/' % (filepath))  # Calling function to create
Folder                global edge_cany_Sample_number
            edge_cany_Sample_number =
Sample_Number_R                import numpy as np
            import cv2

            for name in range(1,
edge_cany_Sample_number + 1):                    image
= cv2.imread(self.filename)  # Taking Sample
color3 = random.randint(50, 200)                    color1
= random.randint(50, 200)                    color2 =
random.randint(50, 200)                    height, width =
image.shape[:2]                    radius_value =
random.randint(10, 50)                    position_circle
= random.randint(50, height)
position_circle = random.randint(50, width)
                cv2.circle(image, center=(position_circle, position_circle),
radius=radius_value,                    color=(color1, color2, color3),
thickness=-10)                    cv2.imwrite('%s/Salt_Effect_Sample/%s.jpg' %
(filepath, name), image)            else:                    pass

   #=============Creating Function for Sharp
Filter==================        def Sharp_filter():            if
Sharp_variable.get()=="Sharp_value":                    global
edge_cany_Sample_number
            edge_cany_Sample_number = Sample_Number_R
            Sample_folder = createFolder(
                '%s/Pencil_Shade_Sample/' % (filepath))  # Calling function to create
Folder                import cv2
            #import numpy as np
            import random

            def sharpen_image():                    for name in
range(1, edge_cany_Sample_number + 1):
#image = cv2.imread(self.filename)  # Taking Sample
color_image = cv2.imread(self.filename)
sm = random.randint(1, 150)                    sr =
random.uniform(0.009, 0.9)
                    cartoon_image1, bawla = cv2.pencilSketch(color_image, sigma_s=sm,
sigma_r=sr, shade_factor=0.02)
                    cv2.imshow('cartoon', cartoon_image1)
                    cv2.imwrite('%s/Pencil_Shade_Sample/%s.jpg' % (filepath, name),
cartoon_image1)                sharpen_image()
   # ??????????Note:- Generating only one sample????????????????
```

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#=========Creating function for Dilation Filter========== def Dilation_filter():
if dilation_variable.get()=="dilation_value": global dela_cany_Sample_number
dela_cany_Sample_number = Sample_Number_R
Sample_folder = createFolder(
'%s/Dilation_Effect_Sample/' % (filepath)) # Calling function to create Folder import cv2
import numpy as np

def dilation_image(): for name in range(1, dela_cany_Sample_number + 1): image = cv2.imread(self.filename) # Taking Sample dila_diff1 = random.randint(0,51) # Passing Random number for Diffrent Sample: dila_diff2 = random.randint(0,51) # Passing Random number for Diffrent Sample:
kernel = np.ones((dila_diff1, dila_diff2), np.uint8) image = cv2.dilate(image, kernel, iterations=1)
cv2.imwrite('%s/Dilation_Effect_Sample/%s.jpg' % (filepath, name), image)

dilation_image()
# ???????????Note:- Generating only one sample????????????????

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#==================Creating function for Blure Filter=================== def Blure_filter(): if Blure_variable.get()=="Blure_value": global dela_cany_Sample_number
dela_cany_Sample_number = Sample_Number_R
Sample_folder = createFolder(

'%s/Blure_Effect_Sample/' % (filepath)) # Calling function to create
Folder import cv2

def averageing_blur(): for name in range(1,
dela_cany_Sample_number + 1): image = cv2.imread(self.filename) #
Taking Sample avgBlur_diff1 = random.randint(1,41) # Passing Random
number for Diffrent Sample: avgBlur_diff2 = random.randint(1, 41)
image = cv2.blur(image, (avgBlur_diff1, avgBlur_diff2))

cv2.imwrite('%s/Blure_Effect_Sample/%s.jpg' % (filepath, name), image)

averageing_blur()
# ???????????Note:- Generating only one
sample??????????????? else: pass

#============Creating Function for Black Hat
Filter=================== def cartoon(): if
Black_hat_variable.get()=="Black_hat_value":
Sample_folder = createFolder(
'%s/Black_Hat_Effect_Sample/' % (filepath)) # Calling function to
create Folder import cv2 import numpy as np
global black_Hat_Sample_number
black_Hat_Sample_number = Sample_Number_R

for name in range(1,
black_Hat_Sample_number + 1): image
= cv2.imread(self.filename) # Taking Sample
sm = random.randint(1,1000) sr =
random.uniform(0.001,1.99)
image1 = cv2.stylization(image, sigma_s=sm, sigma_r=sr)

#cv2.imwrite('%s/Test_Sample/%s.jpg' % (filepath, name), image)
cv2.imwrite('%s/Black_Hat_Effect_Sample/%s.jpg' % (filepath, name), image1)
# ???????????Note:- Generating only one sample??????????????? else:
pass
#=============Creating function for Top Hat
Filter================ def Top_Hat_filter(): if
Top_hat_variable.get()=="Top_hat_value":
Sample_folder = createFolder(
'%s/Top_Hat_Effect_Sample/' % (filepath)) # Calling function to
create Folder import cv2 import numpy as np
global top_Hat_Sample_number
top_Hat_Sample_number = Sample_Number_R

```
            for name in range(1, top_Hat_Sample_number
+ 1):                    image = cv2.imread(self.filename)  #
Taking Sample
                top_Hat_diff1 = random.randint(200, 500)  # Passing Random number for
Diffrent Sample:
                kernel = np.ones((top_Hat_diff1, top_Hat_diff1),
np.uint8)                    image = cv2.morphologyEx(image,
cv2.MORPH_TOPHAT, kernel)

                cv2.imwrite('%s/Top_Hat_Effect_Sample/%s.jpg' % (filepath, name), image)

   # ???????????Note:- Generating only one
sample????????????????            else:                pass

   #=========This is a extra filter add for testing
porpus===================        def Test_filter():            if
blank_variable.get()=="test_value":
            Sample_folder = createFolder(
                '%s/Test_Sample/' % (filepath))  # Calling function to create
Folder                global top_Hat_Sample_number
            top_Hat_Sample_number = Sample_Number_R                import cv2
for name in range(1, top_Hat_Sample_number + 1):                    image =
cv2.imread(self.filename)  # Taking Sample                    top_Hat_diff1 =
random.randint(1,10)  # Passing Random number for Diffrent Sample:
image = cv2.blur(image, (top_Hat_diff1, top_Hat_diff1))
cv2.imwrite('%s/Test_Sample/%s.jpg' % (filepath, name), image)
cv2.imshow("w", image)

cv2.waitKey(0)
else:
pass


#_____________________________________________________________________________
__________ ___
   #==================Creation function for Data Set
Generating=========================
   #-------------------------------------------------------------------
---------------        def download_Button():            if self.file
==0 or self.path==0:                if self.file==0:
                messagebox.showwarning("Warning", "Please Upload Semple
Image First",                                parent=self.root)                if
self.path==0:
                messagebox.showwarning("warning", "Please
select path first",                                parent=self.root)
else:                pass
```

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        #---Note:-  Callig Function in Select Filter
Frame-----------
cv2.imread(Resize_filter())
cv2.imread(Invert_filter())
cv2.imread(Flip_filter())
cv2.imread(Rotate_filter())
cv2.imread(Hue_filter())
cv2.imread(Light_filter())
cv2.imread(Light_color_filter())
cv2.imread(Seturate_filter())

cv2.imread(Addeptive_gaussian_filter())
cv2.imread(Contrass_filter())
cv2.imread(Edge_canny_filter())
cv2.imread(Transformation_filter())
cv2.imread(crop())
cv2.imread(Gray_scale_Filter())
cv2.imread(Translation_filter())
cv2.imread(Salt_filter())
cv2.imread(Sharp_filter())
cv2.imread((Dilation_filter()))
cv2.imread(Blure_filter())
cv2.imread(cartoon())
cv2.imread(Top_Hat_filter())
    #----------------Note:- This Code Is Working Properly----------------

    #---------Note:- Calling Function in More Filter Frame ----------------
cv2.imread(Test_filter())



#_____________________________________________________________________
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    #===============Creating variable to check on value or off value of check
box==============
```

```
   #---------------Note :- These variable are for Select Filter Frame----------------------
---     #-----------------------------------------------------------------------------------------------
Resize_variable = StringVar()
       Flip_variable = StringVar()
       Invert_variable = StringVar()
       Hue_variable = StringVar()
       Rotate_variable = StringVar()
       Light_filter_variable = StringVar()
       Light_color_filters_variable = StringVar()
       Seturate_variable = StringVar()
       Addeptive_variable = StringVar()
       Contrass_variable = StringVar()
       Edge_detect_variable = StringVar()
       Transformation_variable = StringVar()
       Emboss_variable = StringVar()
       Gray_scale_variable =
StringVar()        Translation_variable
= StringVar()
salt_and_paper_variable = StringVar()
Sharp_variable = StringVar()
dilation_variable = StringVar()
Blure_variable = StringVar()
       Black_hat_variable = StringVar()
       Top_hat_variable = StringVar()
   #------Note:- Above Code is working properly----------
blank_variable = StringVar()



#_____________________________________________________________________________________
__________ ___
   #-----------------Putting Buttons on Screen----------------------------------------

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       # _______Show_Feature:- Function For Putting Button On
Screen_________        def show_Feature():
upload_Sample.place(x=290, y=580)
save_Button.place(x=410, y=580)
Show_Filter_button.place(x=530, y=580)
#select_More.place(x=650, y=580)           hide_button.place(x=650,
y=580)           Generate_Sample.place(x=780, y=580)
feature_button1.place(x=900, y=580)
```

#_____Hide_Feature:- Fucntion to Hide Feature Button From Screen_____ def hide_Feature():
upload_Sample.place_forget() save_Button.place_forget()
Show_Filter_button.place_forget()
#select_More.place_forget() hide_button.place_forget()
feature_button1.place_forget()
Generate_Sample.place_forget()

def Hide_the_chk_2():
chk_size.place_forget()
chk_invert.place_forget()
chk_crop.place_forget()
chk_blure.place_forget()
chk_hue.place_forget()
chk_light.place_forget()
chk_light_color.place_forget()
chk_setu.place_forget()
chk_gray.place_forget()
chk_addeptive.place_forget()
chk_Contrass.place_forget()
chk_Edge_cany.place_forget()
Transfom_check.place_forget()
chk_emboss.place_forget()
chk_Translation.place_forget()
chk_salt_paper.place_forget()
chhk_Sharp.place_forget()
chhk_dilation.place_forget()
Chk_Blure.place_forget()
chhk_Black_hat.place_forget()

#_____Hide_Check:- Fucntion for Hiding Check Box_____ def Hide_the_chk_buttons():
chk_size.place_forget() chk_invert.place_forget()
chk_crop.place_forget() chk_blure.place_forget()
chk_hue.place_forget() chk_light.place_forget()
chk_light_color.place_forget() chk_setu.place_forget()
chk_gray.place_forget() chk_addeptive.place_forget()
chk_Contrass.place_forget() chk_Edge_cany.place_forget()
Transfom_check.place_forget() chk_emboss.place_forget()
chk_Translation.place_forget() chk_salt_paper.place_forget()
chhk_Sharp.place_forget() chhk_dilation.place_forget()
Chk_Blure.place_forget() chhk_Black_hat.place_forget()
Chk_Test.place_forget()
# ---------Checking User input image exist or not ---------- if self.sample_Image == 0:

```
self.defaultImage2.place_forget()
self.defaultImage.place(x=310, y=280)            else:
            # -----Placing 700x270 image on screen------
self.Filter_user_Sample.place_forget()
self.default_User_sample.place(x=310, y=280)
        Check_blank.place_forget()

      #_______More_Filter:- Function for putting some extra
filter on screen        def more_Filter():
Check_blank.deselect()
        Check_blank.place(x=600, y=280)

        chk_size.place_forget()
chk_invert.place_forget()
chk_crop.place_forget()
chk_blure.place_forget()
chk_hue.place_forget()
chk_light.place_forget()
chk_light_color.place_forget()
chk_setu.place_forget()
chk_gray.place_forget()
chk_addeptive.place_forget()
chk_Contrass.place_forget()
chk_Edge_cany.place_forget()
Transfom_check.place_forget()
chk_emboss.place_forget()
chk_Translation.place_forget()
chk_salt_paper.place_forget()
chhk_Sharp.place_forget()
chhk_dilation.place_forget()
Chk_Blure.place_forget()
chhk_Black_hat.place_forget()
        Chk_Test.place_forget()

        # ---------Checking User input image exist or
not -------------            if self.sample_Image == 0:
self.defaultImage.place_forget()
self.defaultImage2.place(x=310, y=280)            else:
            self.default_User_sample.place_forget()
self.defaultImage.place_forget()

            self.Filter_user_Sample.place(x=310, y=280)

   #_________Filter_Show:-Function For Putting CHeck Button On
Screen_________        def Filter_show():
```

```
# ----------Creating Resized Filter Check Box -------------------- 1
chk_size.deselect()
chk_size.place(x=600, y=280)

# ----------Creating Invert Filter Check Box -------------------- 2
chk_invert.deselect()
chk_invert.place(x=600, y=315)

# ----------Creating flip Filter Check Box -------------------- 3
chk_crop.deselect()
chk_crop.place(x=600, y=350)

# ----------Creating Rotate Filter Check Box -------------------- 4
chk_blure.deselect()
chk_blure.place(x=600, y=385)

# ----------Creating Hue Filter Check Box -------------------- 5
chk_hue.deselect()
chk_hue.place(x=600, y=420)

# ----------Creating ligth Filter Check Box -------------------- 6
chk_light.deselect()
chk_light.place(x=600, y=455)

# ----------Creating ligth color Filter Check Box -------------------- 7
chk_light_color.deselect()
chk_light_color.place(x=600, y=490)

# ----------Creating Seturation Filter Image Filter Check Box -------------------- 8
chk_setu.deselect()
chk_setu.place(x=770, y=280)

# ----------Creating Gray Scale Filter Check Box -------------------- 9
chk_gray.deselect()
chk_gray.place(x=770, y=315)

# ----------Creating Adeptive Gaussian Check Box -------------------- 10
chk_addeptive.deselect()
chk_addeptive.place(x=770, y=350)

# ----------Creating Contrass Check Box -------------------- 11
chk_Contrass.deselect()
chk_Contrass.place(x=770, y=385)

# ----------Creating Edge Detect Canny Check Box -------------------- 12
chk_Edge_cany.deselect()          chk_Edge_cany.place(x=770, y=420)
```

```
        # ----------Creating Transformation Check Box -------------------- 13
        Transfom_check.deselect()
        Transfom_check.place(x=770, y=455)

        # ----------Creating Emboss Check Box ---------
----------- 14          chk_emboss.deselect()
chk_emboss.place(x=770, y=490)

        # ----------Creating Translation Filter Check Box ---------
----------- 15          chk_Translation.deselect()
chk_Translation.place(x=940, y=280)

        # ----------Creating Salt And Paper Check Box ---------
----------- 16          chk_salt_paper.deselect()
chk_salt_paper.place(x=940, y=315)

        # ----------Creating Sharp Check Box ---------
----------- 17          chhk_Sharp.deselect()
chhk_Sharp.place(x=940, y=350)

        # ----------Creating Blank Check Box ---------
----------- 18          chhk_dilation.deselect()
chhk_dilation.place(x=940, y=385)

        # ----------Creating Blank Check Box -------------------- 19
        Chk_Blure.deselect()
        Chk_Blure.place(x=940, y=420)

        # ----------Creating Blank Check Box ---------
----------- 20          chhk_Black_hat.deselect()
chhk_Black_hat.place(x=940, y=455)

        # ----------Creating Blank Check Box -------------------- 21
        Chk_Test.deselect()
        Chk_Test.place(x=940, y=490)

        # ---------Checking User input image exist or not -
------------          if self.sample_Image == 0:
            self.defaultImage.place_forget()
self.defaultImage2.place(x=310, y=280)
else:
            self.default_User_sample.place_forget()
self.defaultImage.place_forget()
self.Filter_user_Sample.place(x=310, y=280)
```

```
        #----------Removing Blank Check Box------------
        Check_blank.place_forget()



#==================================================================
========
=====================================
#_____________________________________________FRONT END
CODE_____________________________________________________________
#----------------------Front end code in written here but packed in back end code -------------
--------------
--
#==================================================================
========
=====================================

    # ____________________________________________________________
    # =================Main-Background============================
    # ----------------------------------------------------
------      self.bg =
ImageTk.PhotoImage(file="bg.png")
    main_Background = Label(self.root, image=self.bg).place(x=0, y=0, relwidth=1,
relheight=1)

    # ____________________________________________________________
    # =================Sub-Background============================
    # ----------------------------------------------------
-----      self.left =
ImageTk.PhotoImage(file="aug1.png")
    left = Label(self.root, image=self.left).place(x=220, y=130, width=900, height=500)

  #-----------------------------------------------------------------------
  #-------------------------Creating CheckBox ----------------------------
  #-------------------------------------------------------------
--------      # ----------Creating Resized Filter Check
Box -------------------- 1
    chk_size = Checkbutton(left, text="Resize",
variable=Resize_variable,bg="#4e4e4e", onvalue="Resize", offvalue=0,

                        font=("time new roman", 12))

    # ----------Creating Invert Filter Check Box -------------------- 2
    chk_invert = Checkbutton(left, text="invert", variable=Invert_variable,
onvalue="invert", offvalue=0,
                         bg="#4e4e4e",
```

```
                font=("time new roman", 12))

    # ----------Creating flip Filter Check Box -------------------- 3
    chk_crop = Checkbutton(left, text="Flip", variable=Flip_variable, onvalue="flip",
offvalue=0,                    bg="#4e4e4e", font=("time new roman", 12))

    # ----------Creating Rotate Filter Check Box -------------------- 4
    chk_blure = Checkbutton(left, text="Rotate", variable=Rotate_variable,
onvalue="rotate", offvalue=0,
                    bg="#4e4e4e",
                    font=("time new roman", 12))

    # ----------Creating Hue Filter Check Box -------------------- 5
    chk_hue = Checkbutton(left, text="Hue", variable=Hue_variable, onvalue="hue",
offvalue=0, bg="#4e4e4e",
                     font=("time new roman", 12))

    # ----------Creating ligth Filter Check Box -------------------- 6
    chk_light = Checkbutton(left, text="Light", variable=Light_filter_variable,
onvalue="light",                    offvalue=0,                    bg="#4e4e4e",
                    font=("time new roman", 12))

    # ----------Creating ligth color Filter Check Box -------------------- 7
    chk_light_color = Checkbutton(left, text="Light Color",
variable=Light_color_filters_variable,                    onvalue="lColor",
offvalue=0, bg="#4e4e4e",                    font=("time new roman", 12))

    # ----------Creating Seturation Filter Image Filter Check Box -------------------
- 8        chk_setu = Checkbutton(left, text="Seturation",
variable=Seturate_variable, onvalue="Seturate_Image",
                    offvalue=0, bg="#4e4e4e", font=("time new roman", 12))

    # ----------Creating Adeptive Gaussian Check Box -------------------- 10
    chk_addeptive = Checkbutton(left, text="Addeptive_gaussian",
variable=Addeptive_variable, onvalue="addept",
                     offvalue=0,
bg="#4e4e4e",
                     font=("time new roman", 12))

    # ----------Creating Gray Scale Filter Check Box -------------------- 9
chk_gray = Checkbutton(left, text="Gray Scale",
variable=Gray_scale_variable, onvalue="Gray", offvalue=0,
                    bg="#4e4e4e",
                    font=("time new roman", 12))
```

```
# ----------Creating Contrass Check Box -------------------- 11
chk_Contrass = Checkbutton(left, text="Contrass", variable=Contrass_variable,
onvalue="Contra", offvalue=0,
                           bg="#4e4e4e",
                           font=("time new roman", 12))

# ----------Creating Edge Detect Canny Check Box -------------------- 12
chk_Edge_cany = Checkbutton(left, text="Edge Canny",
variable=Edge_detect_variable, onvalue="cany", offvalue=0,
                            bg="#4e4e4e",
                            font=("time new roman", 12))

# ----------Creating Transformation Check Box -------------------- 13
Transfom_check = Checkbutton(left, text="Transformation",
variable=Transformation_variable,                          onvalue="Transfom",
offvalue=0,
                             bg="#4e4e4e",
                             font=("time new roman", 12))

# ----------Creating Emboss Check Box -------------------- 14
chk_emboss = Checkbutton(left, text="Crop", variable=Emboss_variable,
onvalue="embs", offvalue=0,
                         bg="#4e4e4e",
                         font=("time new roman", 12))

# ----------Creating Translation Filter Check Box -------------------- 15
chk_Translation = Checkbutton(left, text="Translation",
variable=Translation_variable,                             onvalue="Translation",
offvalue=0,
                              bg="#4e4e4e", font=("time new roman", 12))

# ----------Creating Salt And Paper Check Box -------------------- 16
chk_salt_paper = Checkbutton(left, text="Salt_And Paper",
variable=salt_and_paper_variable,                           onvalue="Salt_paper",
offvalue=0,
                                bg="#4e4e4e",
                                font=("time new roman", 12))

# ----------Creating Sharp Check Box -------------------- 17
chhk_Sharp = Checkbutton(left, text="Sharp", variable=Sharp_variable,
onvalue="Sharp_value", offvalue=0,
                             bg="#4e4e4e",
                             font=("time new roman", 12))

# ----------Creating Blank Check Box -------------------- 18
```

```
        chhk_dilation = Checkbutton(left, text="Dilation", variable=dilation_variable,
onvalue="dilation_value",
                                offvalue=0,
bg="#4e4e4e",
                                font=("time new roman", 12))

        # ----------Creating Blank Check Box -------------------- 19
        Chk_Blure = Checkbutton(left, text="Blure", variable=Blure_variable,
onvalue="Blure_value", offvalue=0,
                            bg="#4e4e4e",
                            font=("time new roman", 12))

        # ----------Creating Blank Check Box -------------------- 20
        chhk_Black_hat = Checkbutton(left, text="Black Hat", variable=Black_hat_variable,
onvalue="Black_hat_value",
                                 offvalue=0,
bg="#4e4e4e",
                                 font=("time new roman", 12))

        # ----------Creating Blank Check Box -------------------- 21
        Chk_Test = Checkbutton(left, text="Top_Hat", variable=Top_hat_variable,
onvalue="Top_hat_value", offvalue=0,
                           bg="#4e4e4e",
                           font=("time new roman", 12))


        #---------------Some Extra Filter------------------------
-------------        # ----------Creating Blank Check Box ---
-----------------
        Check_blank = Checkbutton(left,text="Test", variable=blank_variable,
onvalue="test_value", offvalue=0,
                         bg="#4e4e4e",
                         font=("time new roman", 12))

        '''# ----------Creating All Filter Check Box --------------------
        chk_all = Checkbutton(left, text="All Filter", onvalue=1, offvalue=0,
bg="#4e4e4e",                              font=("time new roman", 12))
chk_all.deselect()
        chk_all.place(x=600, y=455)'''

    #-------------------------------------------------------------------------------------     #---------------
--------Creating Feature Button----------------------------------
    #-------------------------------------------------------------------------------------

        #_______Default_Image:- Importing image to show as defaul___________
        self.result = ImageTk.PhotoImage(file="default_image.jpeg")
```

```
        self.defaultImage = Label(self.root, image=self.result, bd=1, bg="#4e4e4e",
cursor="hand2")

        #---------Checking User input image exist or
not -------------         if self.sample_Image == 0:
self.defaultImage.place(x=310, y=280)         else:
pass

        #_______Default_Image :- For Side View in 220x220_____________________
        self.result2 = ImageTk.PhotoImage(file="default_image2.jpeg")
        self.defaultImage2 = Label(self.root, image=self.result2, bd=1, bg="#4e4e4e",
cursor="hand2")

        #______Show_Feature:- _____Creating Button To Display Feature
Button_____________         self.feature_Image = ImageTk.PhotoImage(file="Show.png")
        feature_button = Button(self.root,activebackground="#4e4e4e",
image=self.feature_Image, borderwidth=0, bg="#4e4e4e",
command=show_Feature)         feature_button.place(x=250,y=580)

        #______Hide_Feature:-___Creating Button To Hide Feature Button___________
self.feature_Image1 = ImageTk.PhotoImage(file="Hide.png")
        feature_button1 = Button(self.root,
image=self.feature_Image1,activebackground="#4e4e4e", borderwidth=0, bg="#4e4e4e",
command=hide_Feature)

        # ______Upload:- creating button to upload sample image_______________
self.download = ImageTk.PhotoImage(file="Upload.png")
        upload_Sample= Button(self.root,
image=self.download,activebackground="#4e4e4e", borderwidth=0
,bg="#4e4e4e",command=Upload_file)

        # ______Set-Path:- creating button to set Path for saving data set__________
self.select_path = ImageTk.PhotoImage(file="Select_path.png")
        save_Button =
Button(self.root,image=self.select_path,activebackground="#4e4e4e",
borderwidth=0,bg="#4e4e4e",command=savefile)


        # __________ SelectFilter:- _button is using to show check button Of filter_____
        self.select_filter = ImageTk.PhotoImage(file="Select_Filter.png")
Show_Filter_button = Button(self.root,
image=self.select_filter,borderwidth=0,activebackground="#4e4e4e", bg="#4e4e4e",
command=Filter_show)


        # __________Select_More:- button is using to get more filters ______
```

```
'''self.more2= ImageTk.PhotoImage(file="More_Filter.png")
    select_More = Button(self.root, image=self.more2, bg="#4e4e4e", borderwidth=0,
command=more_Filter)

    #????????????????This line May generating error????????????????'''

    # _____ Hide_Filter:-  butten is using to hide the check buttons
_____        self.more1 = ImageTk.PhotoImage(file="Hide_Filter.png")
    hide_button = Button(self.root, image=self.more1,
bg="#4e4e4e",activebackground="#4e4e4e", borderwidth=0,
command=Hide_the_chk_buttons)

    # _____Download:- Creating button to generate data
set==============================
    self.generate = ImageTk.PhotoImage(file="Download.png")
    Generate_Sample = Button(self.root, image=self.generate, bg="#4e4e4e",
activebackground="#4e4e4e",borderwidth=0, cursor="hand2",
command=download_Button)


root=Tk()
obj=Register(ro
ot)
root.mainloop()
```

Read More

```
#_____________________________________________________________________
_____________________________________________
#-----------------------------------------Importing Required Package(API)----------------------
----------------
#-----------------------------------------------------------------------------------------------
--------------

from PIL
import
ImageTk
import tkinter
as tk from
tkinter import
ttk
from tkinter import scrolledtext, END

clas
s
Reg
iste
r: #
_____________________________________________________________________
_____________________________________________
# ----------------------------------------------------FRONT END CODE--------------------------
------------------
# -----------------------------------------------------------------------------------------------
--------------

   #=====Root
Function===========
def __init__(self,root):
self.root=root
self.root.title("ConsoleLancer
")
self.root.geometry("1350x74
0+0+0")
      # ____________________________________________________________
      # ------------------------Frame And Background-------------------
      # ---------------------------------------------------------------

      #
============================Frames==============================
```

```
        #-------------------First Frame-----------------------------
-----        self.left =
ImageTk.PhotoImage(file="Augmentation.png")
        left = tk.Label(self.root, image=self.left)
        left.place(x=0, y=0, width=1350, height=195)

        #-------------------Second Frame----------------------------
------        frame2 = tk.Frame(self.root, bd=2,
bg="#111d20")        frame2.place(x=0, y=195, width=300,
height=547)

        #-------------------Third Frame----------------------------
------        frame3 = tk.Frame(self.root,bg="#eeeef0")
frame3.place(x=300, y=195,width=1050, height=547)


        # ____________________________________________________________________
        # -----------------------Buttons----------------------
-------------        # ----------------------------------------
------------------------

        #=====================Frame
1=====================================
        '''This frame is containing Header. Which is already decleared & initialized in
above code'''

        #=====================Button Area [Frame
2]=======================

        #==========This button will throw you on user login page===========
        self.User_Login = ImageTk.PhotoImage(file="User.png")
        User =
tk.Button(frame2,image=self.User_Login,activebackground="#111d20",font=("time
new roman", 20,
"bold"),command=self.user_page,bd=0,bg="#111d20",fg="#eeeef0",
cursor="hand2")
        User.place(x=5,y=100)

        #==========This page will throw you on Admin login page===========
        self.Admin_Login =
ImageTk.PhotoImage(file="Admin.png")        Admin =
tk.Button(frame2,image=self.Admin_Login,activebackground="#111d20",font
=("time new roman", 20, "bold"),command=self.admin_page
,bd=0,bg="#111d20",fg="#eeeef0", cursor="hand2")
        Admin.place(x=5,y=200)
```

```
    #====================Description Area [Frame 3]====================
ttk.Label(frame3,

            text="DESCRIPTION",

            font=("time new roman", 20, "bold"),

            background='#eeeef0',

            foreground="gray").place(x=400,y=50)

    #=================Creating scrolled
Area===========================
    text_area = scrolledtext.ScrolledText(frame3,

                                wrap=tk.WORD,

                                width=80,

                                height=16,

                                font=("Times New Roman",

                                    15))

    text_area.place(x=100,y=100)
    #========Inserting Product Description In Text Area===============

    file = open("product_Description.txt","r")        #   Reading Product
Description from file

for
line in
file:
        x = line                #   Passing Each line in x to insert in in text area
text_area.insert(END,x)     #   Inserting Each Line in text area

                            #   Placing cursor in the text area
text_area.focus()


#_____________________________________________________________________________
_____________________________________________
#----------------------------------------------BACK END CODE-----------------------------------
-------------------
```

```
#-------------------------------------------------------------------------------------------------------
--------------

    #=========Function to jump on Admin login
page==============     def admin_page(self):
self.root.destroy()
        import Admin_login

    #=========Function to jump on User login
page===============     def user_page(self):
self.root.destroy()
        import User_Login

root= tk.Tk()
obj=Register(root)
root.resizable(False
, False)
root.mainloop()
```