### Python Essentials | Jan 2021 Batch 1 | Day 5 Overview

# DAY 05 AGENDA | Total Duration 1:35:32

- Cryptography app
- Guess the movie names
- Downloading Instagram photos

***And, to understand in detail please go through the below TIMESTAMPS***

# Day 5 | Jan 2021 Batch 1 | LetsUpgrade - Python Essentials

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TIMESTAMP for EACH TOPIC:

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1:33 - Project 1- Cryptography app

34:45 - Project 2- Guess the movie name

1:20:37- Project 3- Downloading Instagram photos

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### Project 1 - Cryptography:

**Cryptography is defined as the art and science of concealing the message to introduce privacy and secrecy as recognized in information security.**

- Plain Text - The plain text message is the text which is readable and can be understood by all users.
- Cipher Text- It obtained the message after applying cryptography on plain text.
- Encryption- The process of converting plain text to cipher text is called encryption. It is also called encoding.
- Decryption- The process of converting ciphertext to plain text is called decryption. It is also termed decoding.

***Program:***

Windows application is going to create by using python, so use the most famous app **tkinter**

```
from tkinter import *

#import tkinter

root = Tk()

root.title("Cryptography App")
```

```
........
root.mainloop()
```

**Write the body of the program in between the root.title and root.main loop. Don’t write anything before the root.tiltle and after the root.mainloop.**

```
l1 = Label(root,text="Plain Text")
l1.grid(row=0,column=0)
l3 = Label(root,text="Encypted Text")
l3.grid(row=0,column=2)
var= StringVar()
e1 = Entry(root,textvariable=var)
e1.grid(row=0,column=1)
var2= StringVar()
e3 = Entry(root,textvariable=var2)
e3.grid(row=0,column=3)
l2 = Label(root,text="Encypted Text")
l2.grid(row=1,column=0)
l4 = Label(root,text="Plain Text")
l4.grid(row=1,column=2)
```

- **After writing these codes the plain text will convert into encrypted text.**

```
def encryptMessage():
    a = var.get()
    #Ritesh
    ct = onetimepad.encrypt(a,"letupgrade")
    print("Working",ct)
    e2.delete(0,END)
    e2.insert(END,ct)
```

- In this portion, plain text and an encrypted text will appear.
- Write something on the plain text and it will convert the text into encrypted value.
- And the encrypted value is unreadable.

**Next, write the same process to the Decryption part and define the process.**

```
def dycrptMessage():
    a = var2.get()
    #Ritesh
    ct = onetimepad.decrypt(a,"letupgrade")
    print("Working",ct)
    e4.delete(0,END)
    e4.insert(END,ct)
```

The encryption and decryption part will be ready. Now run the program first you will get the encryption, in that part write anything in that it will convert that some unreadable text. And write the unreadable text in the decryption part now the unreadable text will show the plain text. At last, the cryptography app is done.

## Project - 2 - Guessing Movie Name using Python

***FireBase:***

- Firebase is a database that is on google sever. It is mainly used to store data in a google servers.
- Refer https://firebase.google.com/docs/firestore?authuser=0
- The Firebase Realtime Database is a cloud-hosted NoSQL database that lets you store and sync data between your users in realtime.
- In this project, we are using some python codes to guess the movie's name.
- In this project, movie names are guessed by using python.

**Program:**

```
import firebase_admin
from firebase_admin import credentials
cred = credentials.Certificate("my-project.json")
firebase_admin.initialize_app(cred)
print("Working")
```

**This is the code to check whether the firebase app is working or not.**

```
db = firestore.client()
doc_ref = db.collection("movies").document("Bollywood")
data = {"Name":["war","kgf","3-idiot","family-man","dangal"],
       "collection":[400,500,200,100,600]}
doc_ref.set(data)
print("done")
```

**Set the data for movies and run the program to check that the information you were given is correct.**

***Retrive the dataset from the firebase:***

- This is used to check that the dataset you gave need to show you in the firebase app. The following code is to retrive the dataset from the firebase.

```
db = firestore.client()
docs = db.collection("movies").stream()
for d in docs:
    #print(d.to_dict())
    database = d.to_dict()
d = database["Name"]
```

***Body of the program:***

```
import random
movie = database["Name"]
player = input("Write your Name: ")
print("Guess the character: ")
print("You have 10 chance to get the movie name: ")
print("Best of luck!",player)
count = 10
geuss= ""
word = random.choice(movie) #war
while count>0:
    fail = 0
    for char in word:
        if char in geuss:
            print(char)
        else:
            print("_")
            fail+=1
    if fail==0:
```

```
        print("Congratulation you won!!!")
        print("Movie Name was:",word)
        break
    g = input("Enter your character: ")
    geuss = geuss+g
    if g not in word:
        count = count-1
        print("Wrong Answer:(")
        print("You have ",count,"more geusses")
```

if you run this program, you will get the output correctly. And then the project for guessing the names of the movie *was done.*

### Project 3- Downloading Instagram photos

***Downloading photos from Instagram by using python command prompt:***

Steps to run this project:-Instagram Photo Downloader:-

- instaloader profile username
- instaloader –help
- instaloader --no-videos --comments --geotags --no-metadata-json --no-compress-json profile username
- instaloader --no-videos --comments --geotags --no-metadata-json --no-compress-json –login username profile ritesh.ai
- instaloader --no-videos --comments --geotags --no-metadata-json --no-compress-json –login username --password password profile ritesh.ai

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🚀**Assignment and Materials for the day have been uploaded in the drive.**

**Attendance Form: https://forms.gle/Ls6BC7Nf5arz3hJSA**

**Assignment Submission Form: https://forms.gle/NC2UA5pHGXveETbu7**

**Assignment and Materials**
**Details: https://drive.google.com/drive/folders/1TWC_Pdva8ggm6jYHd8l5AqsiLkWgRE4l?usp=sharing**

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# Batch 1 | All Details | Python Essentials JAN 2021