# My project

## Name of project: -

Train time table screen with digital clock and announcement

Use: -

It is use to display the time ,date and train schedule along with announcement on train station .

## Library file use in project

1.- from tkinter import *
2.-import datetime
3.- import pyttsx3

## Function use in my project

1.- engine = pyttsx3.init('sapi5')
2.-voices = engine.getProperty('voices')
3.-rate = engine.getProperty("rate")
4.-engine.setProperty('voice', voices[id number].id)
5.-engine.setProperty('rate',90)
6.-engine.setProperty('voice',1)
7.-engine.say(voices)
8.-engine.runAndWait()
9.-hour = int(datetime.datetime.now().hour)

10.-time =datetime.datetime.now()



11.-mint = int(time.strftime('%M'))
12.-hr=time.strftime('%I')
13.-mi=time.strftime('%M')
14.-sec=time.strftime('%S')
15.-am=time.strftime("%p")
16.-date=time.strftime("%d")
17.-month=time.strftime("%m")
18.-year=time.strftime("%y")
19.-day=time.strftime("%a")
20.- lab_hr.config(text)
21.-clock = Tk()
22.-clock.mainloop()
23.-clock.title('  DIGITAL CLOCK BY OM KUMAR PRIY')
24.-clock.geometry( with X Hight)
25.-clock.config(bg='yellow')
26.-lab_hr=Label(clock,text=".....",font=('TimeNew
Roman',40,"bold"),  bg='red',fg="white")
27.-lab_hr.place(x=120,y=60,height=60,width=100)

# What it does?

It is a screen which display the time in hour minute second with AM/PM date month year day along with

train schedule in train sequel it includes train number, train name, train time, and platform number.
And second main function is it announced about the the train and train schedule  when needed.

# Project creation process.

### Step -1:

Install and import all module listed above.

### Step -2:

Set desktop voice with the help of “getproperty()” and set property()
Set rate, voice, speed of voice, volume and quality.

### Step -3:

We made a function called speak(). Now, we will write our speak() function to convert our text to speech.
Using pyttsx3.init('sapi5').say(VAR_name).

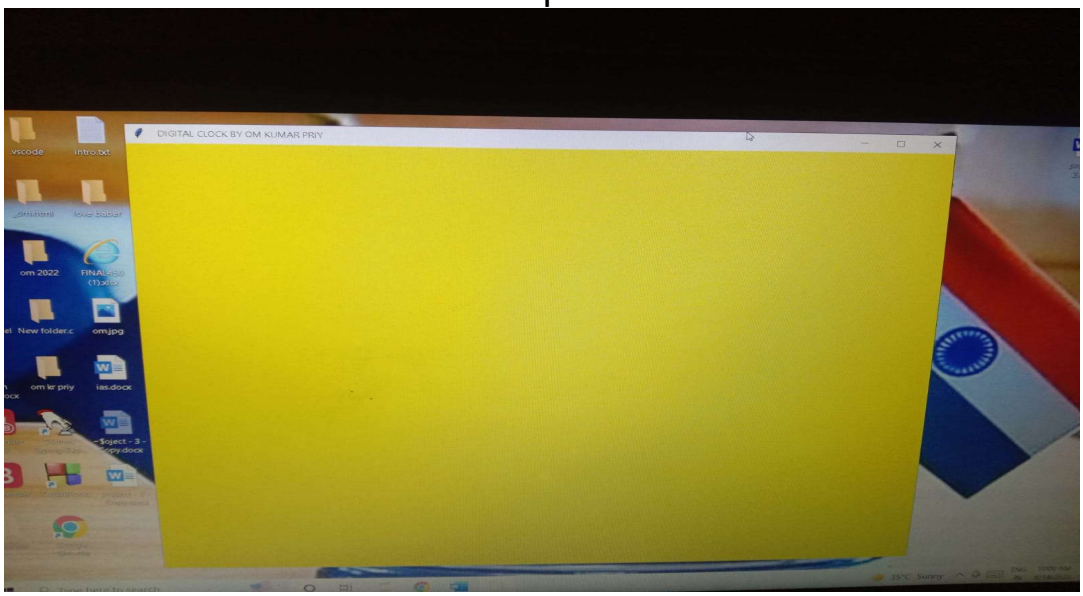
### Step -4:

Create screen
Call TK() to create the screen and pass the with and Hight as parameter like this “TK().geometry('1000x750')”,

Then choose background colure as “TK().config(bg='yellow')”.



Using for  title “clock.title('DIGITAL CLOCK BY OM KUMAR PRIY')”.
End with “TK().mainloop()”.
Here screen will be created. & output is below.




## Step -4:

## Define and make “datetime ()”

```
def date_time():
    hour = int(datetime.datetime.now().hour)
    time =datetime.datetime.now()
    mint = int(time.strftime('%M'))
    hr=time.strftime('%I')
    mi=time.strftime('%M')
    sec=time.strftime('%S')
    am=time.strftime("%p")
    date=time.strftime("%d")
    month=time.strftime("%m")
```

```
    year=time.strftime("%y")
    day=time.strftime("%a")
```


it gives the value of all variable like hour, minute, second , AM/PM ,date month, year , day.

Step -5:

Now define and make “config(text)” inside “datetime ()”

```
    lab_hr.config(text=hr)
    lab_min.config(text=mi)
    lab_sec.config(text=sec)
    lab_am.config(text=am)
    lab_date.config(text=date)
    lab_mon.config(text=month)
    lab_yr.config(text=year)
    lab_wk.config(text=day)
```

It all function help to update text value on Label function .

Step -6:

Now call predefine function “var_name.after(200,date_time)” inside “datetime ()”.
It is use to update the vale after a certain time period.

Step -7:

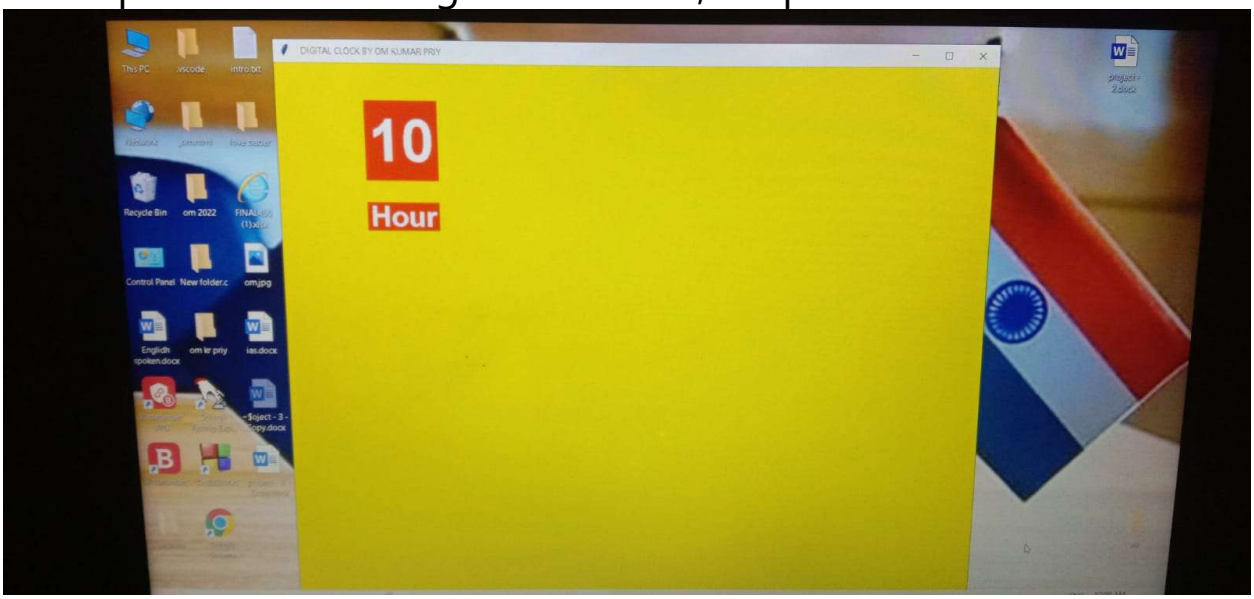
Now call predefine function “label() and place()”

```
lab_hr=Label(clock,text="00",font=('Time New Roman',60,"bold"),
```

```
            bg='red',fg="white")
lab_hr.place(x=120,y=50,height=110, width=100)
```

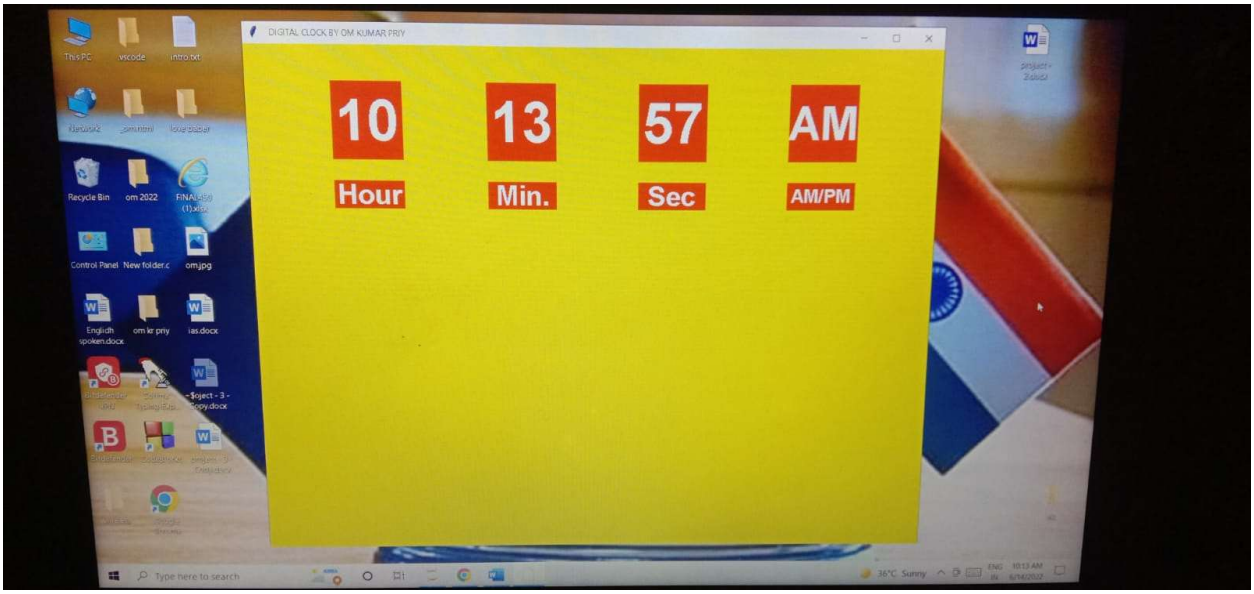


Lable() function is use for display text and place () is use for create overlap screen with height and width, output below.

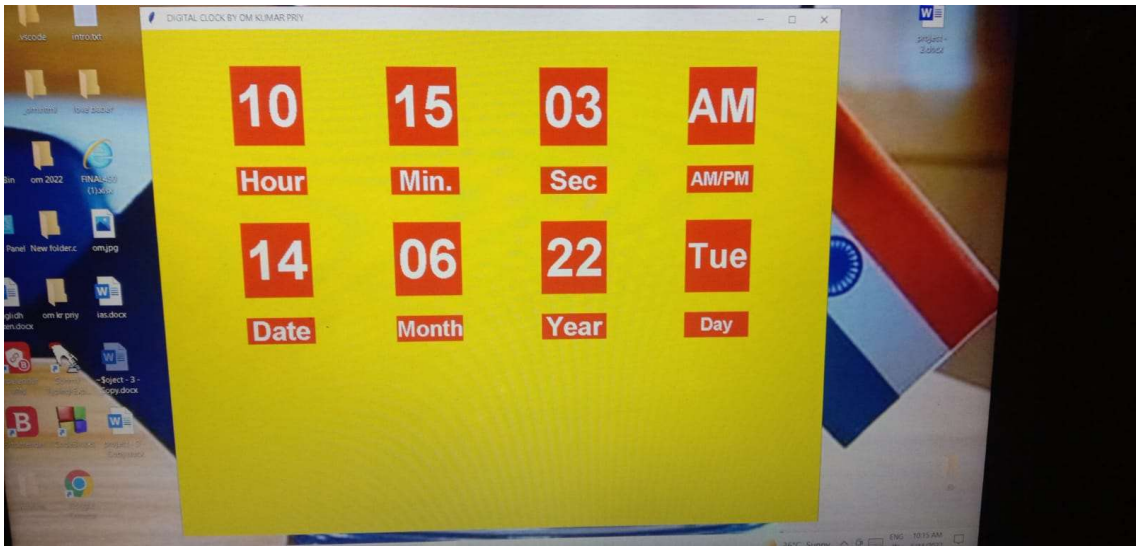



## Step -8:

Repeat step 7 many time accordingly with different coordinate .






Step -9:

Now called “wishme()” inside “datetime ()”
And define out side it ,
it has

```
hour = int(datetime.datetime.now().hour)
    time =datetime.datetime.now()
```

```
    mint = int(time.strftime('%M'))
    secand=int(time.strftime('%S'))
```

if train tme is match call “call_..()” function and speak(text), here speak function speal all about the train.

Step -10:

Define call_...() function

```
def call_A(a):
    lab_a=Label(clock,text="12345.      Rajdhani expres          05:20
1",font=('Time New Roman',28,"bold"), bg='red',fg="white")
```

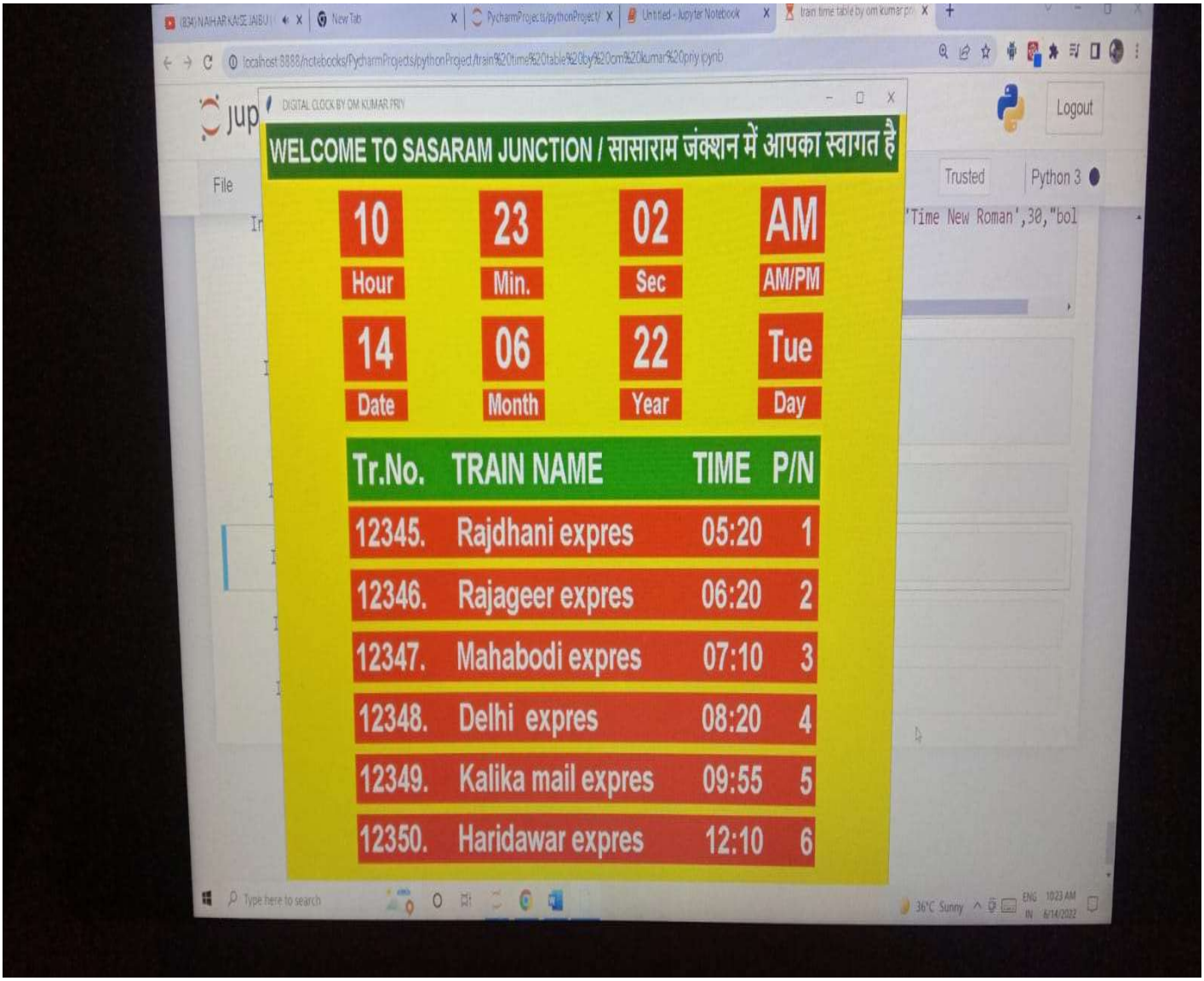


```
    lab_a.place(x=120,y=z,height=50,width=760)
```

it is use to display one time table of the train .

Step -11:

If there are many train time match in side wishme() then repeat step 9 and 10.






## Limitation

- It is use only single railway station.
- It needed proper internet connection.
- It uses high quality speaker and connecting system

## Future Plan

- We can make all type of function depends on time.

## Precaution

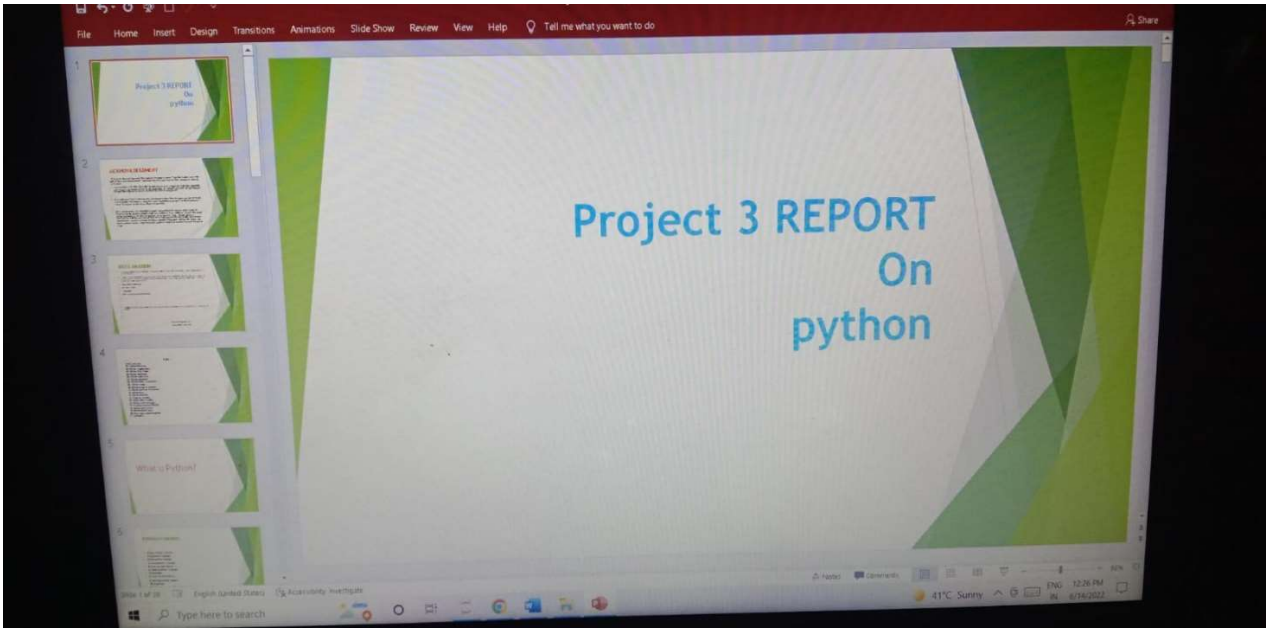
- ▶ Coordinate must be correct.
- ▶ All library file must be, which mansion above.
- ▶ Good internet connection.

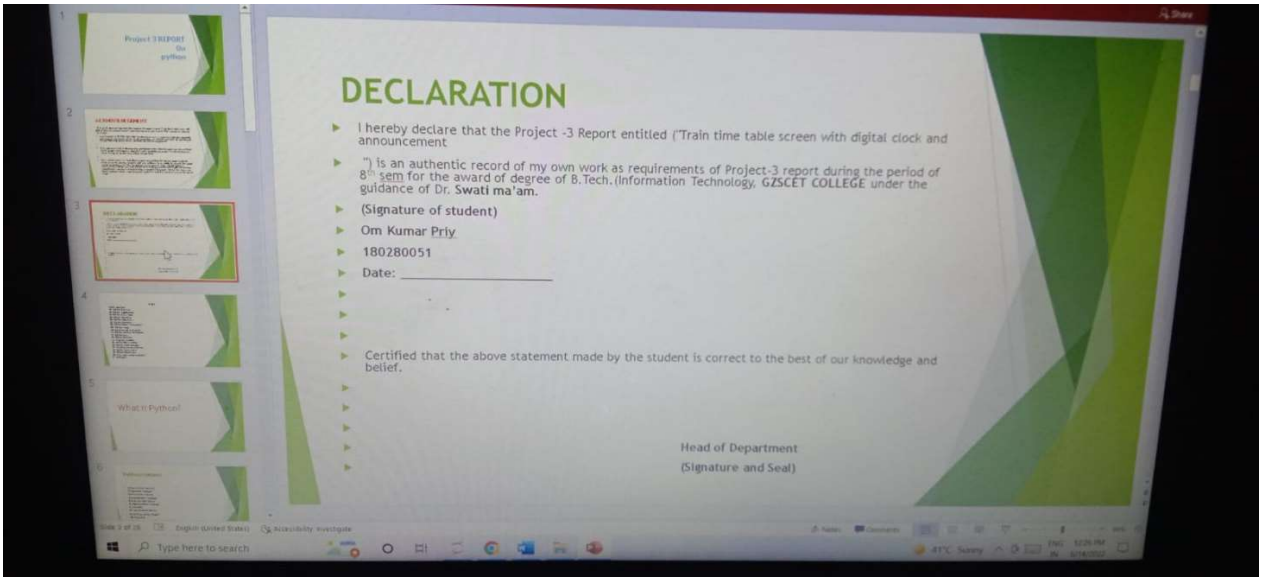
Useful resource

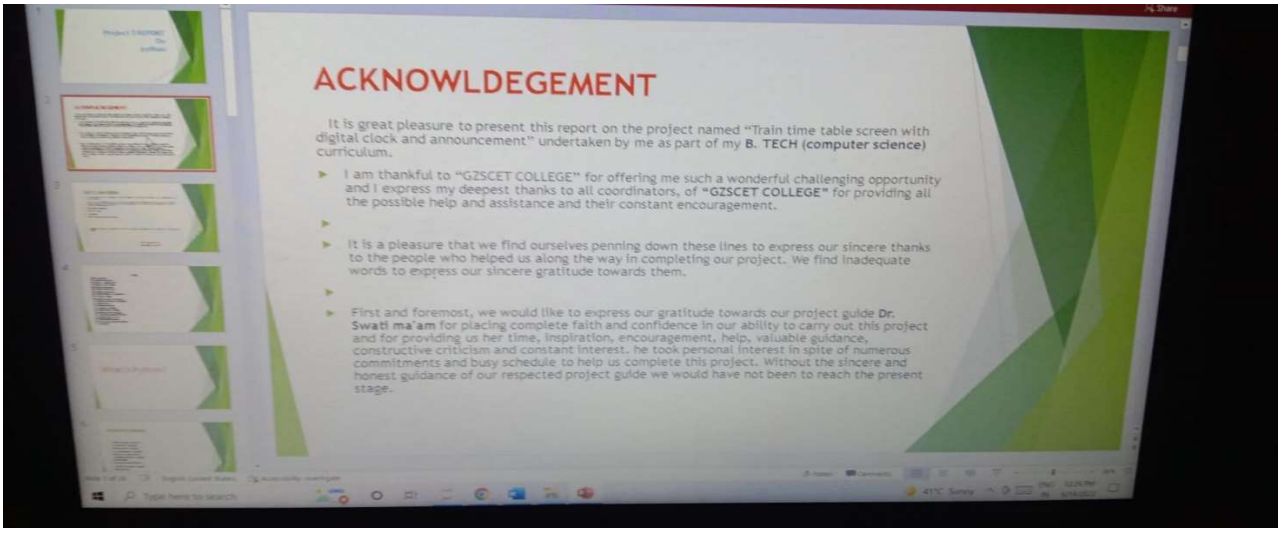
- ▶ WWW/javatpoint.come
- ▶ WWW/geeksforgeeks.come
- ▶ WWW/tutorialpoint.com.come
- ▶ WWW/codewithhary.come
- ▶ WWW/youtub//tutorialpoint.com.come
- ▶ WWW/youtub//codewithhary.come
- ▶ WWW/youtub//lovebaber.come

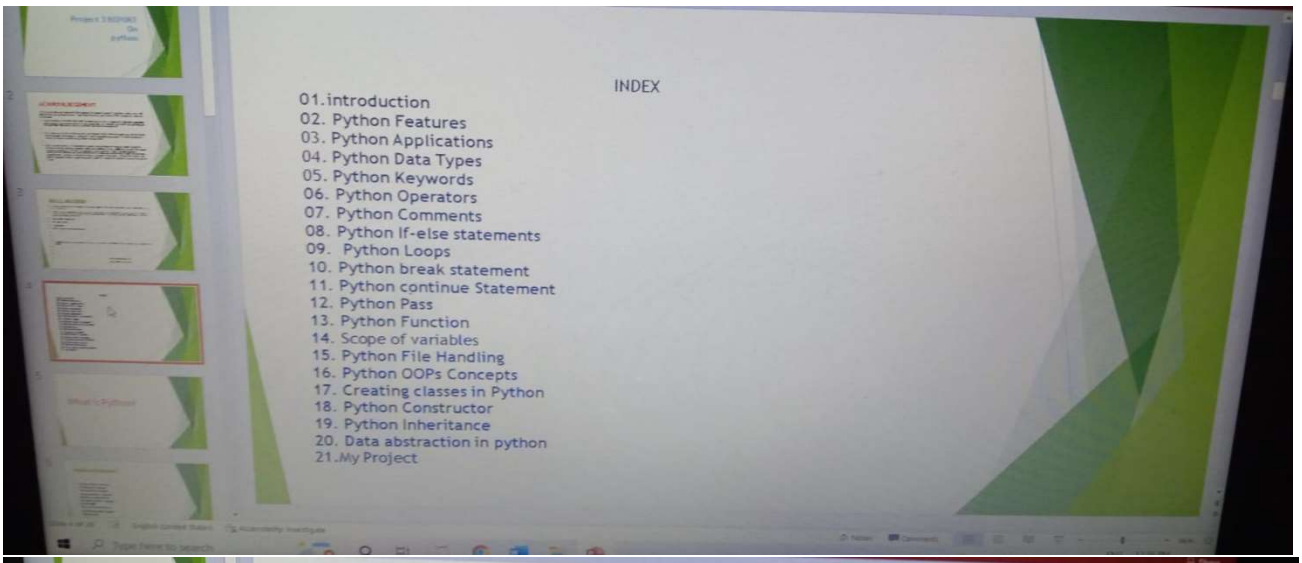


# PPT on my project


File Home Insert Design Transitions Animations Slide Show Review View Help Tell me what you want to do
Project 3 REPORT
On
python


DECLARATION
I hereby declare that the Project -3 Report entitled ('Train time table screen with digital clock and announcement
") is an authentic record of my own work as requirements of Project-3 report during the period of 8th sem for the award of degree of B.Tech.(Information Technology, GZSCET COLLEGE under the guidance of Dr. Swati ma'am.
(Signature of student)
Om Kumar Priy
180280051
Date: _____
Certified that the above statement made by the student is correct to the best of our knowledge and belief.
Head of Department
(Signature and Seal)


ACKNOWLDEGEMENT
It is great pleasure to present this report on the project named "Train time table screen with digital clock and announcement" undertaken by me as part of my B. TECH (computer science) curriculum.
I am thankful to "GZSCET COLLEGE" for offering me such a wonderful challenging opportunity and I express my deepest thanks to all coordinators, of "GZSCET COLLEGE" for providing all the possible help and assistance and their constant encouragement.
It is a pleasure that we find ourselves penning down these lines to express our sincere thanks to the people who helped us along the way in completing our project. We find inadequate words to express our sincere gratitude towards them.
First and foremost, we would like to express our gratitude towards our project guide Dr. Swati ma'am for placing complete faith and confidence in our ability to carry out this project and for providing us her time, inspiration, encouragement, help, valuable guidance, constructive criticism and constant interest. he took personal interest in spite of numerous commitments and busy schedule to help us complete this project. Without the sincere and honest guidance of our respected project guide we would have not been to reach the present stage.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08. Python If-else statements
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11. Python continue Statement
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13. Python Function
14. Scope of variables
15. Python File Handling
16. Python OOPs Concepts
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18. Python Constructor
19. Python Inheritance
20. Data abstraction in python
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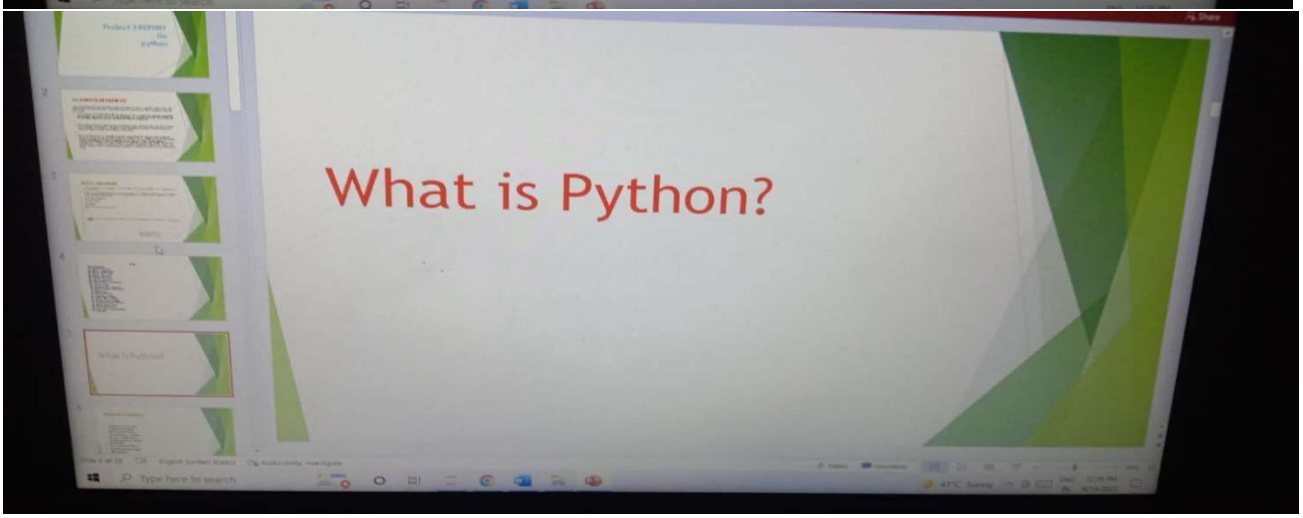
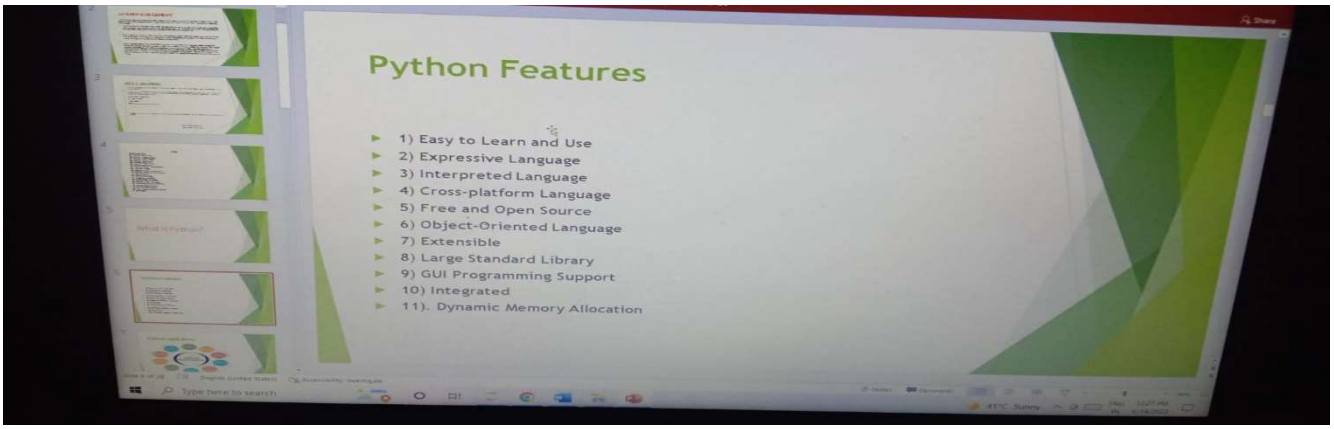
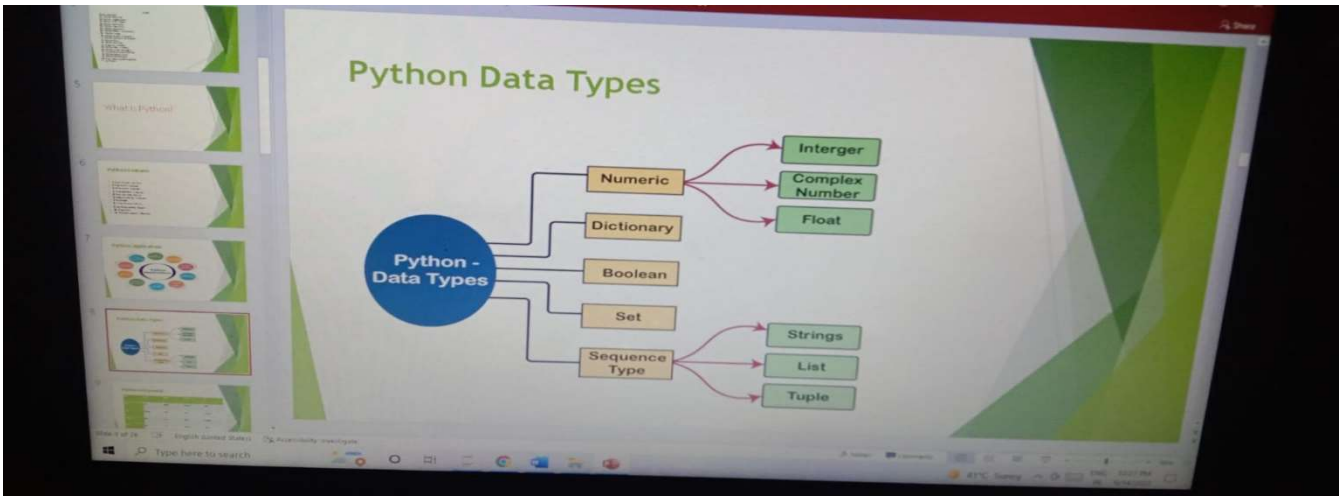
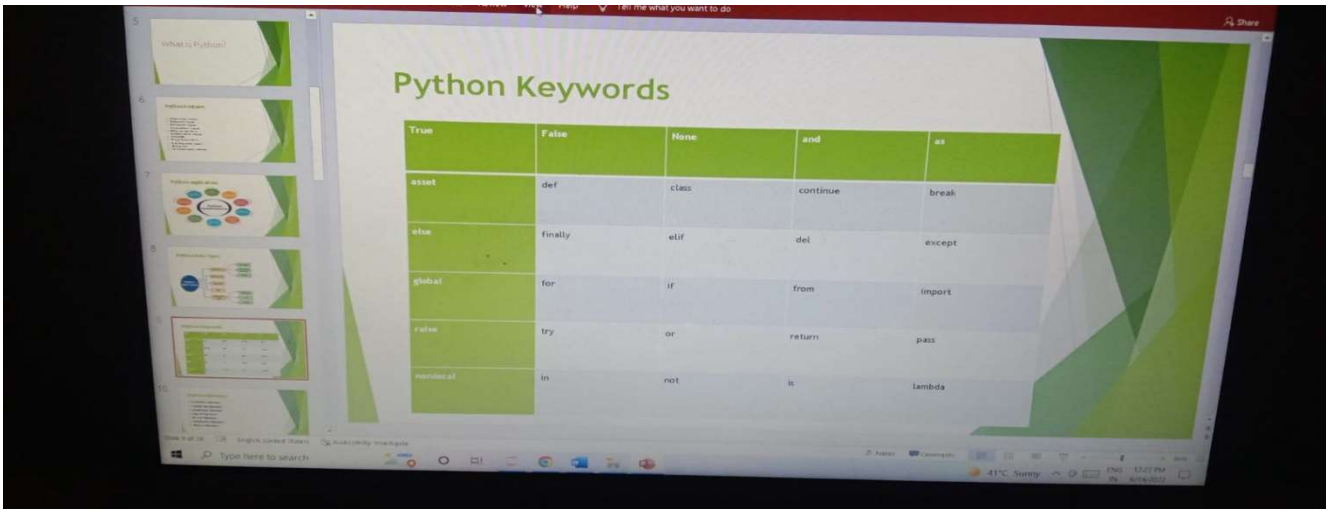
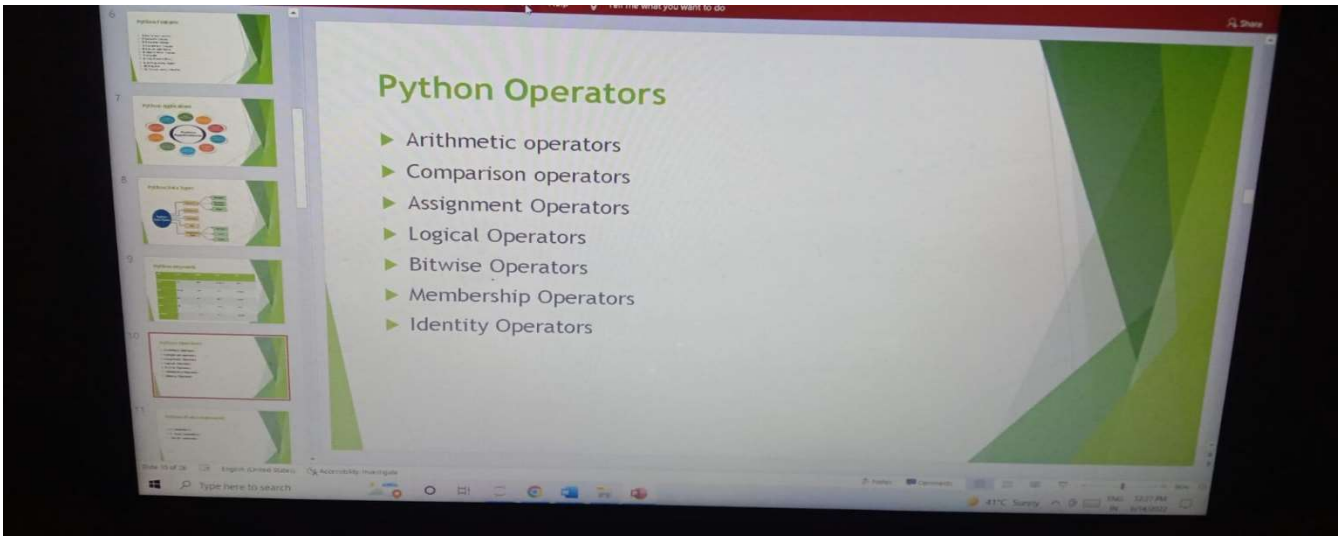

What is Python?

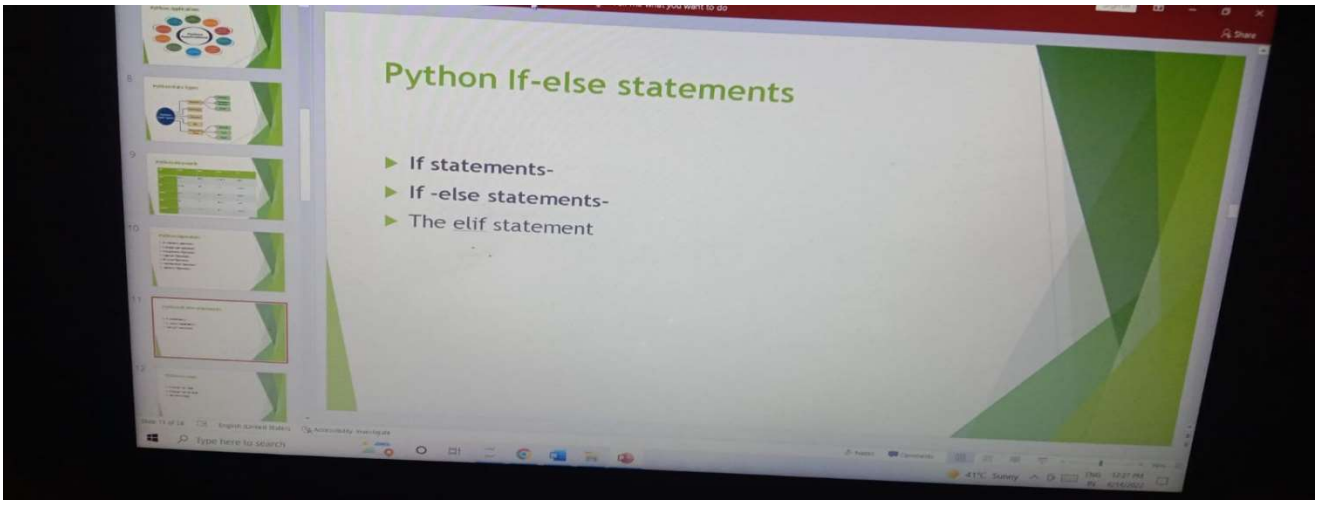

Python Features
1) Easy to Learn and Use
2) Expressive Language
3) Interpreted Language
4) Cross-platform Language
5) Free and Open Source
6) Object-Oriented Language
7) Extensible
8) Large Standard Library
9) GUI Programming Support
10) Integrated
11). Dynamic Memory Allocation

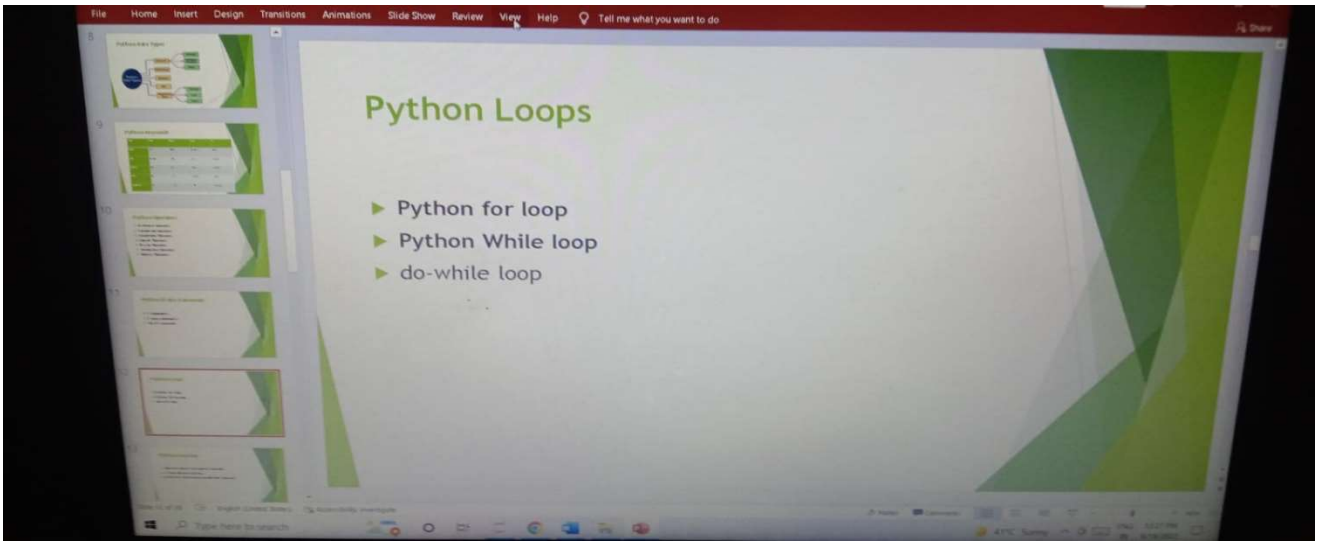

Python Applications
Python Applications
Web applications
Image Processing Applications
Desktop GUI Applications
Enterprise Applications
Console-Based Applications
3D CAD Applications
Software Development
Audio or Video-Based Applications
Business Applications
scientific & numeric

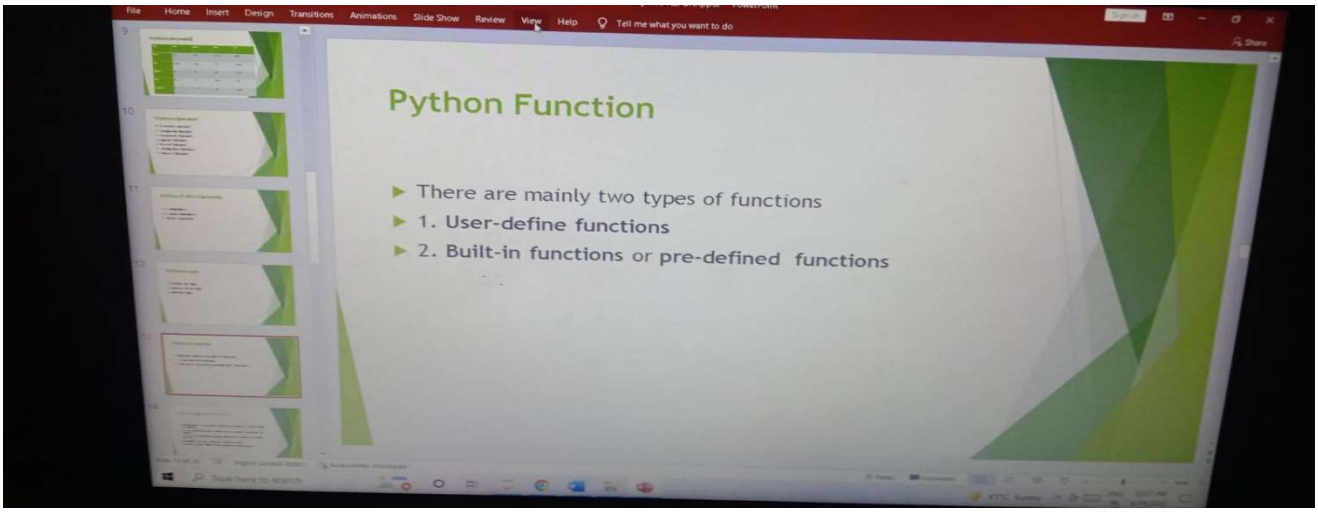

Python Data Types
Python - Data Types
Numeric
Interger
Complex Number
Float
Dictionary
Boolean
Set
Sequence Type
Strings
List
Tuple

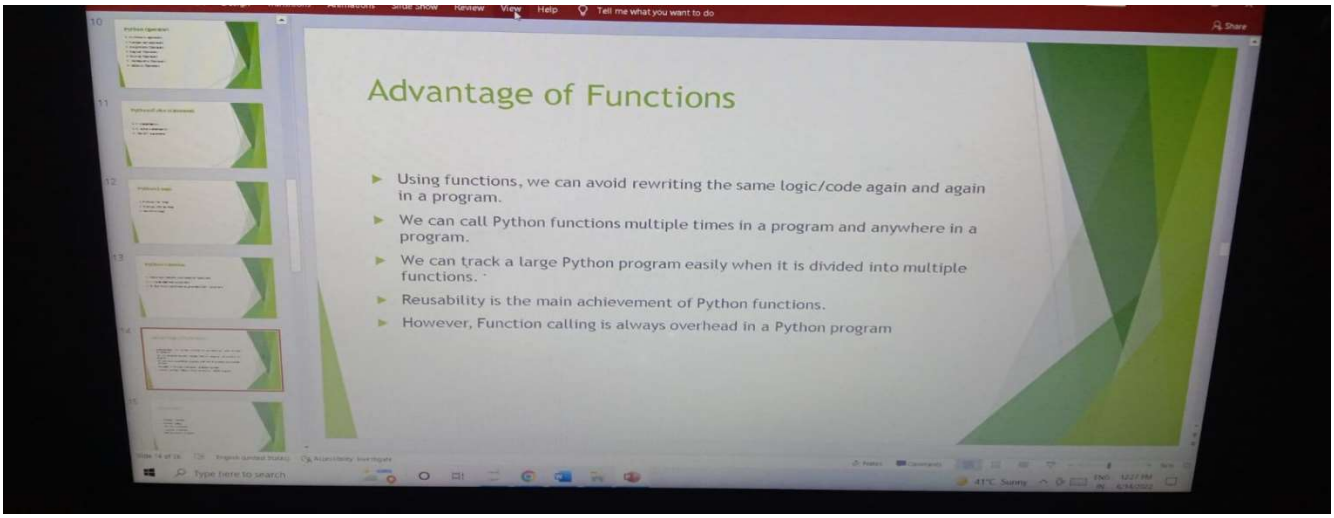

Python Keywords
True
False
None
and
as
assert
def
class
continue
break
else
finally
elif
del
except
global
for
if
from
import
raise
try
or
return
pass
nonlocal
in
not
is
lambda

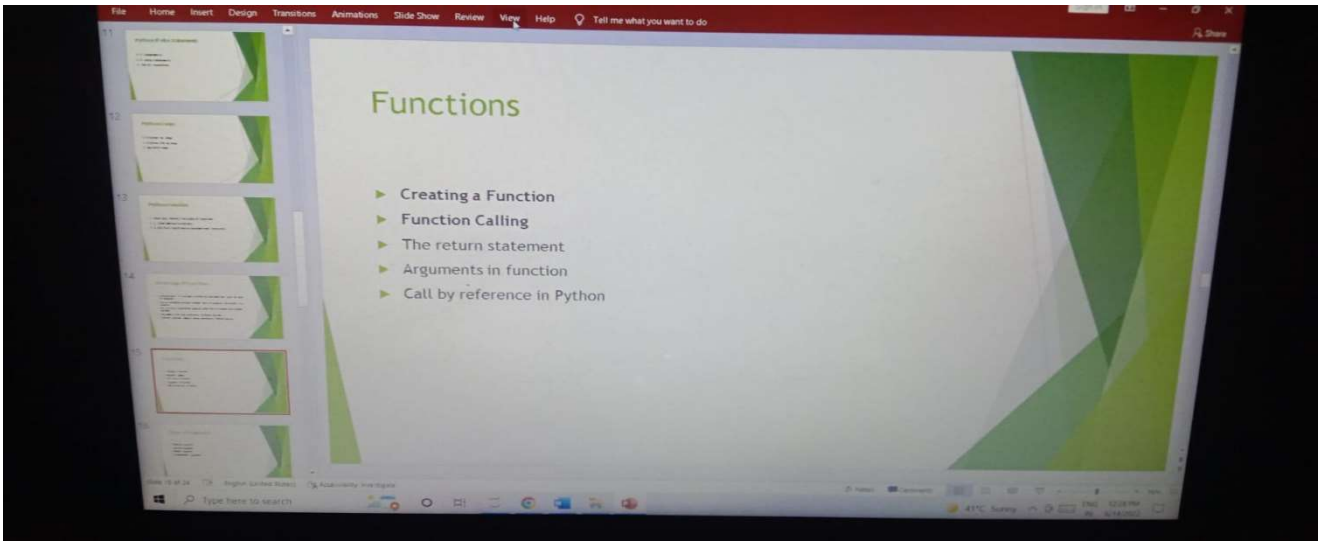

Python Operators
Arithmetic operators
Comparison operators
Assignment Operators
Logical Operators
Bitwise Operators
Membership Operators
Identity Operators

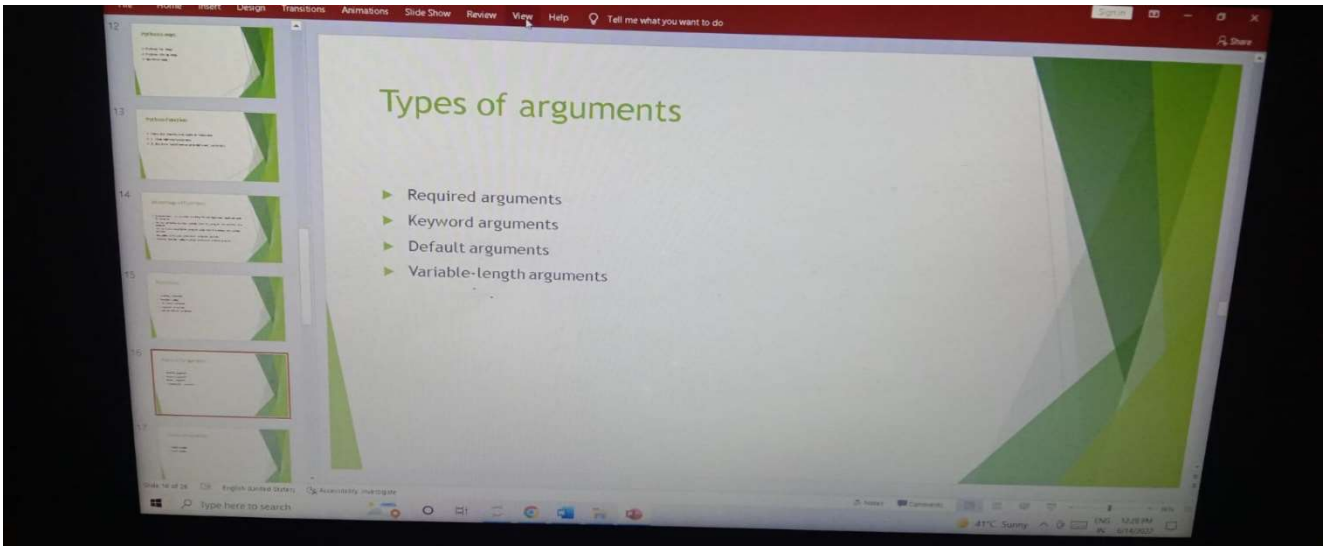

Python If-else statements
If statements-
If -else statements-
The elif statement

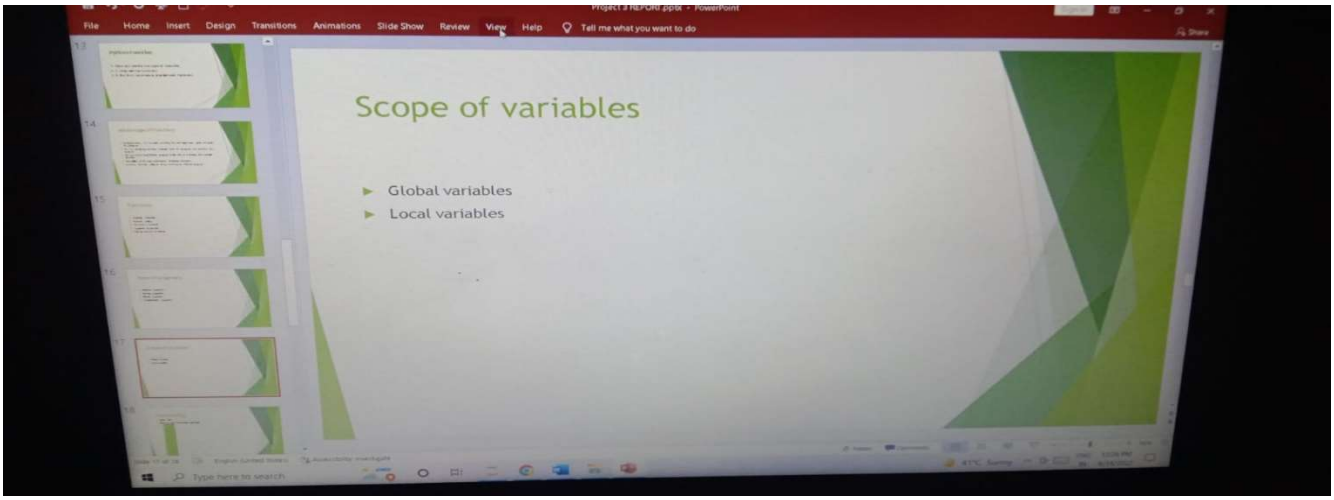

Python Loops
Python for loop
Python While loop
do-while loop

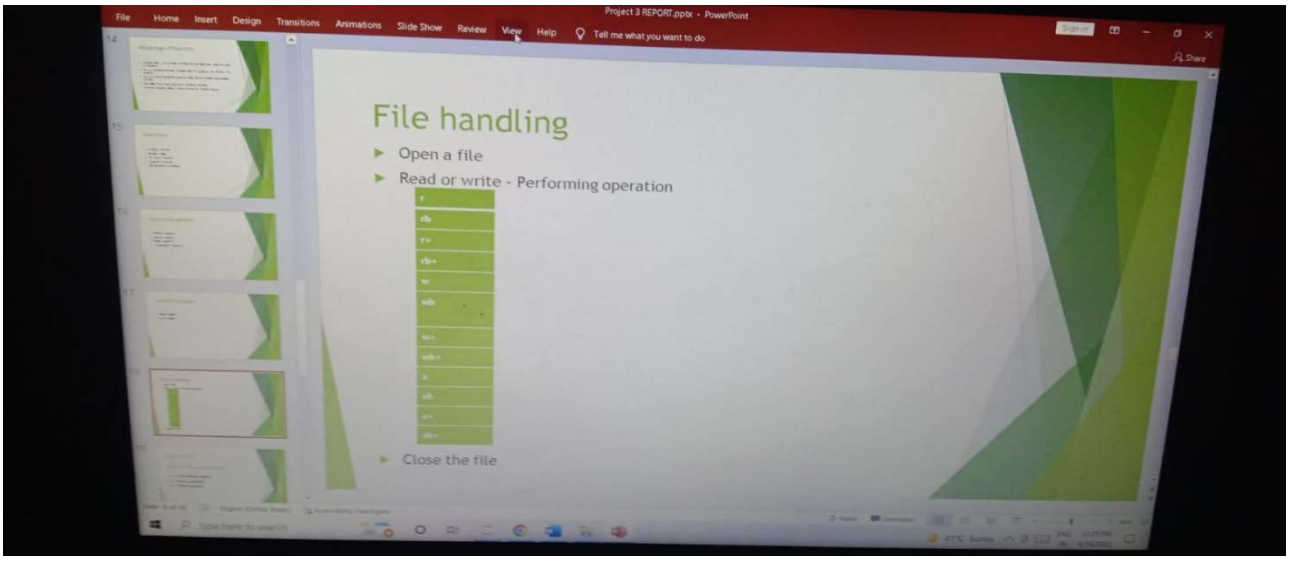

Python Function
There are mainly two types of functions
1. User-define functions
2. Built-in functions or pre-defined functions

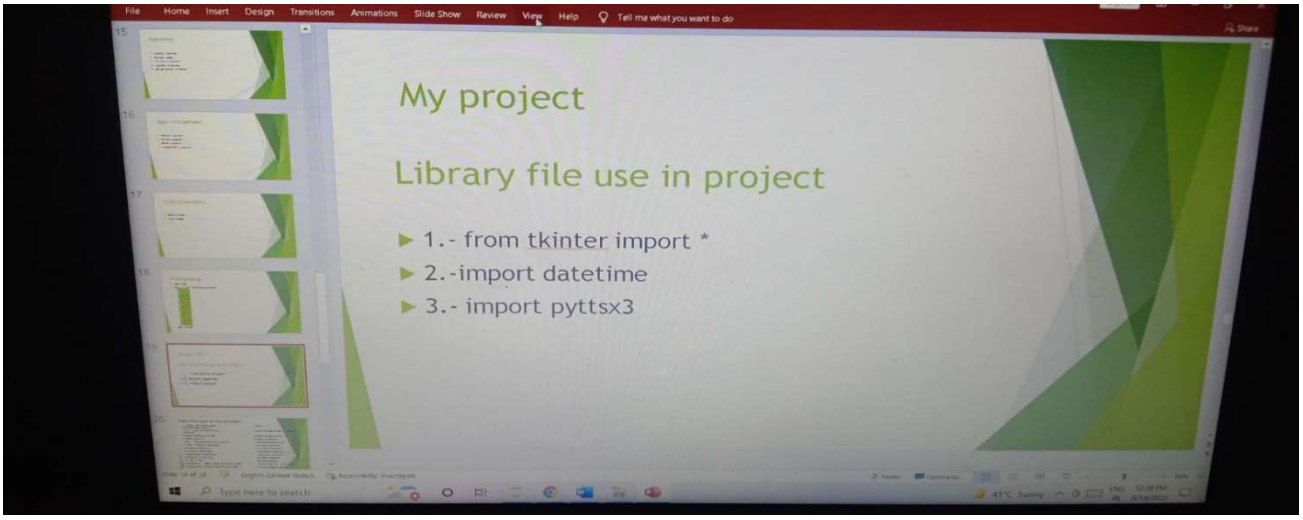

Advantage of Functions
Using functions, we can avoid rewriting the same logic/code again and again in a program.
We can call Python functions multiple times in a program and anywhere in a program.
We can track a large Python program easily when it is divided into multiple functions.
Reusability is the main achievement of Python functions.
However, Function calling is always overhead in a Python program


Functions
Creating a Function
Function Calling
The return statement
Arguments in function
Call by reference in Python


Types of arguments
Required arguments
Keyword arguments
Default arguments
Variable-length arguments


Scope of variables
Global variables
Local variables


File handling
Open a file
Read or write - Performing operation
Close the file


My project
Library file use in project
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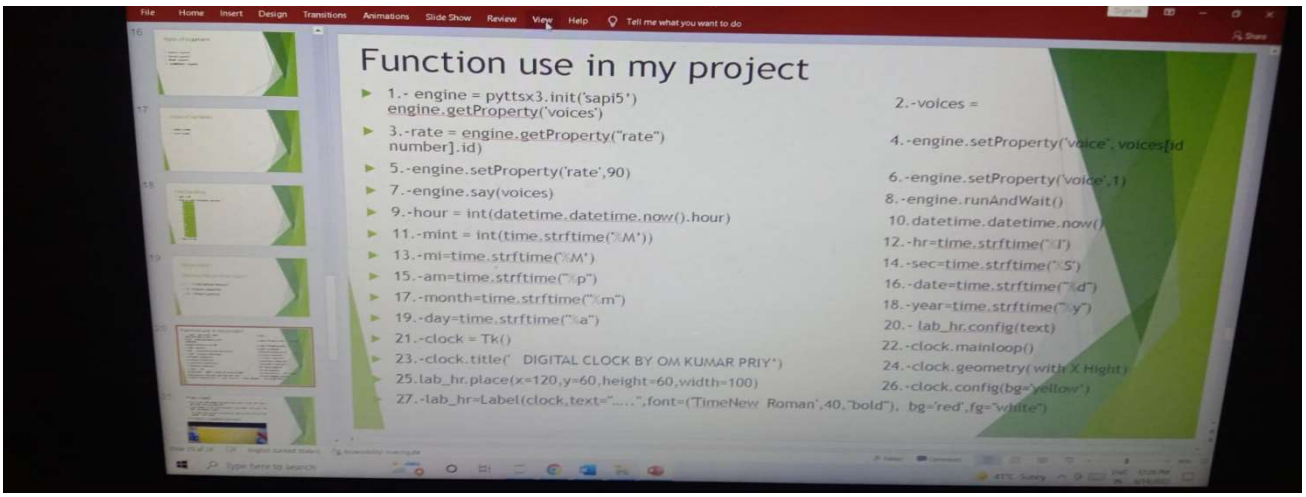
Function use in my project
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number].id)
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7.-engine.say(voices)
8.-engine.runAndWait()
9.-hour = int(datetime.datetime.now().hour)
10.datetime.datetime.now()
11.-mint = int(time.strftime("%M"))
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13.-mi=time.strftime("%M")
14.-sec=time.strftime("%S")
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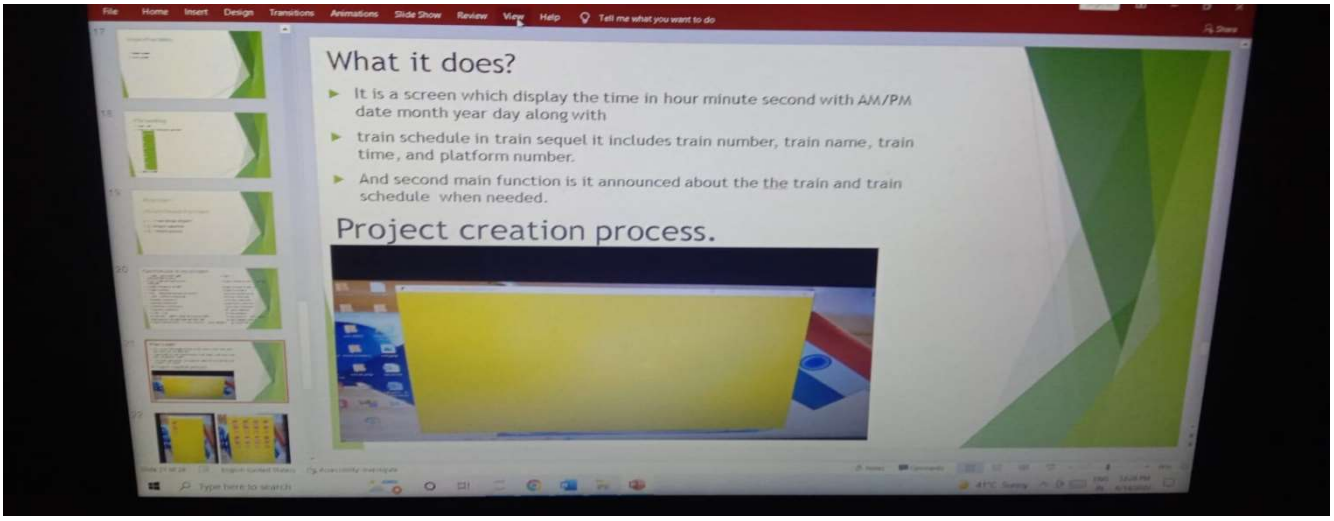
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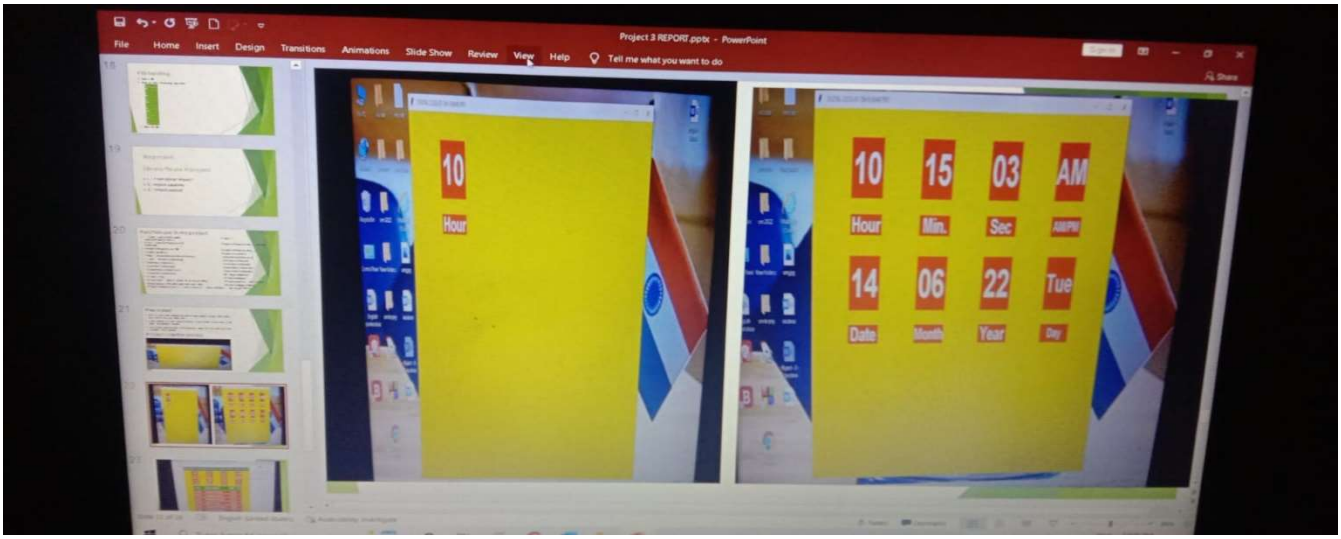
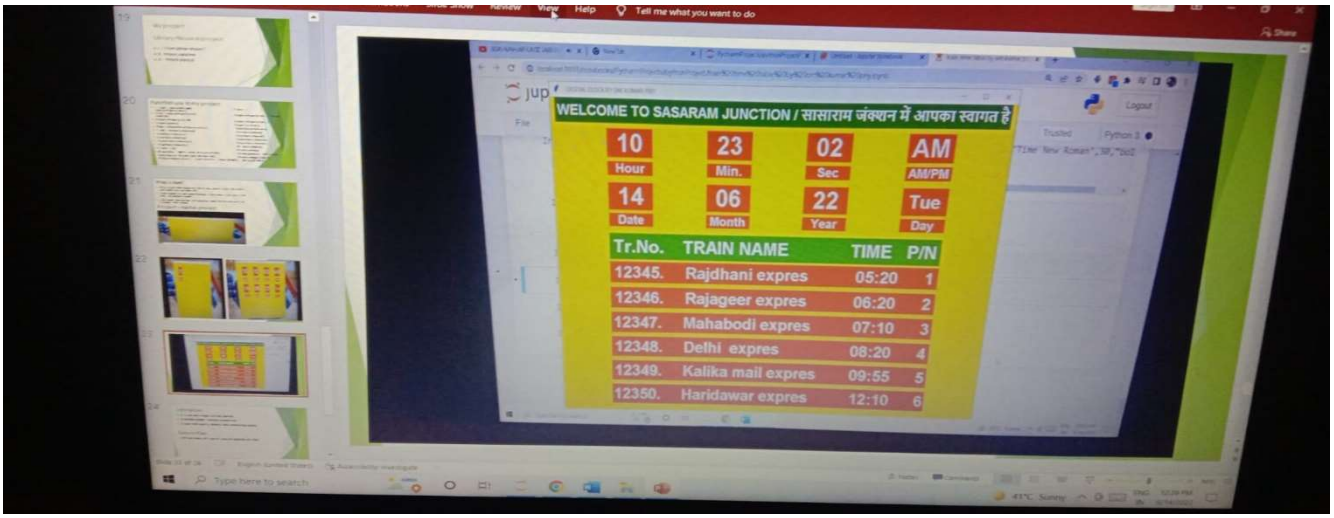
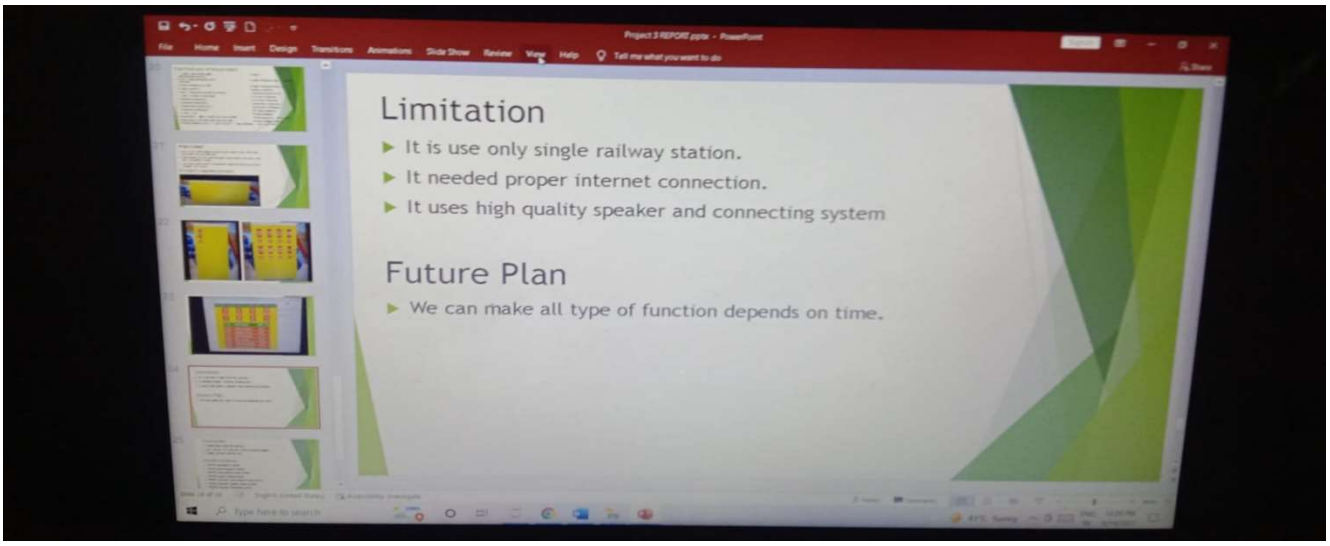

10
Hour
10 15 03 AM
Hour Min. Sec AM/PM
14 06 22 Tue
Date Month Year Day


WELCOME TO SASARAM JUNCTION / सासाराम जंक्शन में आपका स्वागत है
10 Hour
23 Min.
02 Sec
AM AM/PM
14 Date
06 Month
22 Year
Tue Day
Tr.No. TRAIN NAME TIME P/N
12345. Rajdhani expres 05:20 1
12346. Rajageer expres 06:20 2
12347. Mahabodi expres 07:10 3
12348. Delhi expres 08:20 4
12349. Kalika mail expres 09:55 5
12350. Haridawar expres 12:10 6


Limitation
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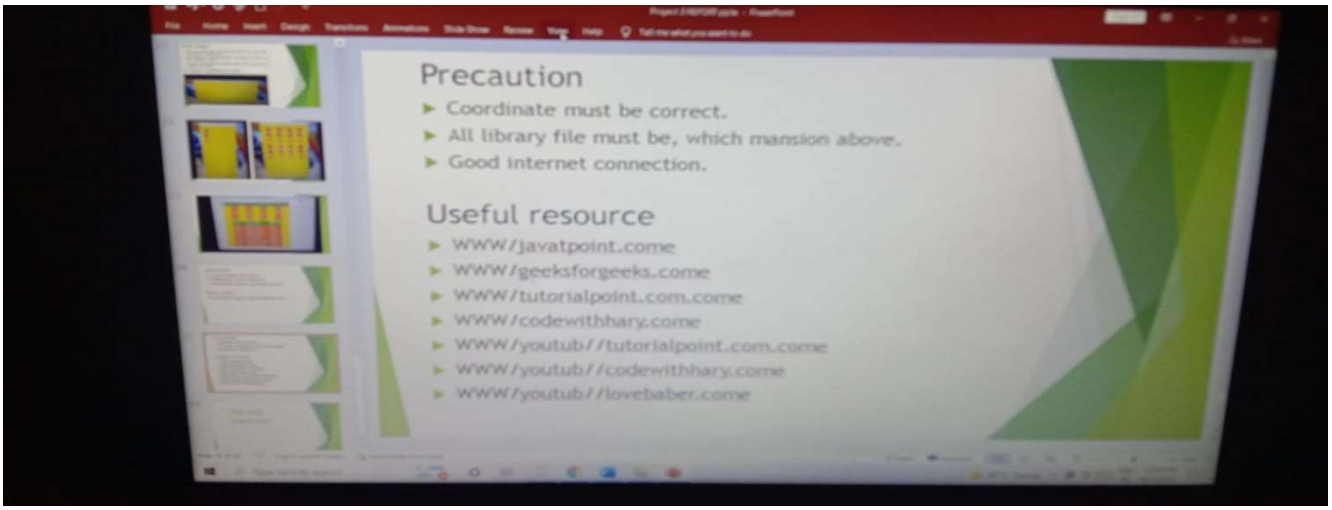
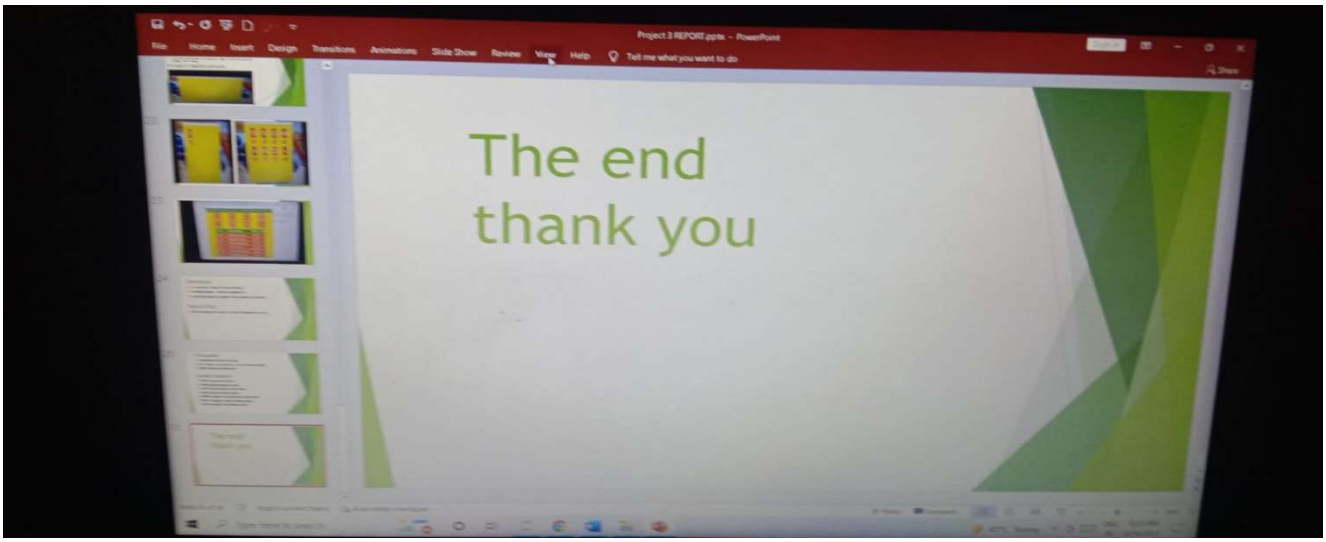
It needed proper internet connection.
It uses high quality speaker and connecting system
Future Plan
We can make all type of function depends on time.


Precaution
Coordinate must be correct.
All library file must be, which mansion above.
Good internet connection.
Useful resource
WWW/javatpoint.come
WWW/geeksforgeeks.come
WWW/tutorialpoint.com.come
WWW/codewithhary.come
WWW/youtub//tutorialpoint.com.come
WWW/youtub//codewithhary.come
WWW/youtub//lovebaber.come


The end
thank you