

Report on

Joy of Programming using Python

Submitted for Summer Internship Project

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2020-21

INDEX

1)	Project
2)	Assignment 22
3)	Assignment 23
4)	Assignment 24

Project: PYTHON WEBSITE BLOCKER

Abstract: In present day scenario, Distractions are more than the motivations. They are also an obstacle to online education. Students who are taking online classes, are more exposed to distractions than in-person classes. This is a situation which affects their academics as well as mental health. So in order to reduce those disturbances, we need some methods or program which acts as a blocker so that everyone who is using internet can mind his/her business peacefully. These codes will help us in the long run.

Methodology is very simple as soon as the user enters details, it will start removing advertisements and recommended websites.

Conclusion to that one can focus on one's work.

Input format:

-

The first line of input is a conditional statement.

Output format:

The user-defined websites will be blocked.

Example:

Input:

1. choose 1 or 2.
2. Enter username.

3. Enter password.
4. Enter websites that you want to be blocked.

Output:

- 1
2. Abhinav
3. Assassin
4. www.pubgm.com

Access granted

SOLUTION:-

Code:-

```
1 import os
2 import time
3 from datetime import datetime as dt
4 #Windows host file path
5 hostsPath=r"C:\Windows\System32\drivers\etc\hosts"
6 redirect="127.0.0.1"
7 #Add the website you want to block in this list
8 print("Please enter the appropriate option")
9 print("1.New user")
10 print("2.Existing user")
11 choice=int(input())
12 if(choice==1):
13     user=input("Please enter the username \n")
14     password=input("enter password \n")
15     User=user+".txt"
16
17     with open(User, 'w+') as web:
18         web.write(password)
19         web.write(" ")
20         websites=input("Please enter the sites to be blocked")
21         websites=websites.split(" ")
22         for site in websites:
23             web.write(site)
24             web.write(" ")
25     while True:
26
27         if dt(dt.now().year,dt.now().month,dt.now().day,9) < dt.now() < dt(dt.now().year,dt.now().month,dt.now().day,18):
28             print("Sorry Not Allowed...")
29             file=open(hostsPath,'r+')
30             content=file.read()
31             for site in websites:
32                 if site in content:
```

```

31         for site in websites:
32             if site in content:
33                 pass
34             else:
35                 file.write(redirect+" "+site+"\n")
36
37     else:
38         file=open(hostsPath,'r+')
39         content=file.readlines()
40         file.seek(0)
41         for line in content:
42             if not any(site in line for site in websites):
43                 file.write(line)
44                 file.truncate()
45         print_("Allowed access!")
46         time.sleep(5)
47 else:
48     user=input("Please enter the username")
49     password=input("Please enter the password")
50     User = user + ".txt"
51     print("Password entered is "+password)
52     password = user + password
53     password1=user
54     with open(User,"r+") as web:
55         b=web.read()
56         for i in b:
57             if(i==" "or i=="\n"):
58                 break
59         password1 = password1 + i
60     websites=[]
61     if(password1==password):
62         l=len(password)
63         web.seek(l)

```

if (choice== 1) › with open(User, 'w+') as web › for site in websites

```

61         l=len(password)
62         web.seek(l)
63         web=open(User,"r+")
64         b=web.read()
65         webSites=b
66         webSites=webSites.split(" ")
67         for i in websites:
68             websites.append(i)
69     while True:
70         # Duration during which, website blocker will work
71         if dt(dt.now().year, dt.now().month, dt.now().day, 9) < dt.now() < dt(dt.now().year, dt.now().month,
72             dt.now().day, 18):
73             print("Sorry Not Allowed...")
74             file = open(hostsPath, 'r+')
75             content = file.read()
76             for site in websites:
77                 if site in content:
78                     pass
79                 else:
80                     file.write(redirect + " " + site + "\n")
81
82     else:
83         file = open(hostsPath, 'r+')
84         content = file.readlines()
85         file.seek(0)
86         for line in content:
87             if not any(site in line for site in websites):
88                 file.write(line)
89                 file.truncate()
90         print("Allowed access!")
91         time.sleep(5)
92 else:
93     print("Incorrect password \n")

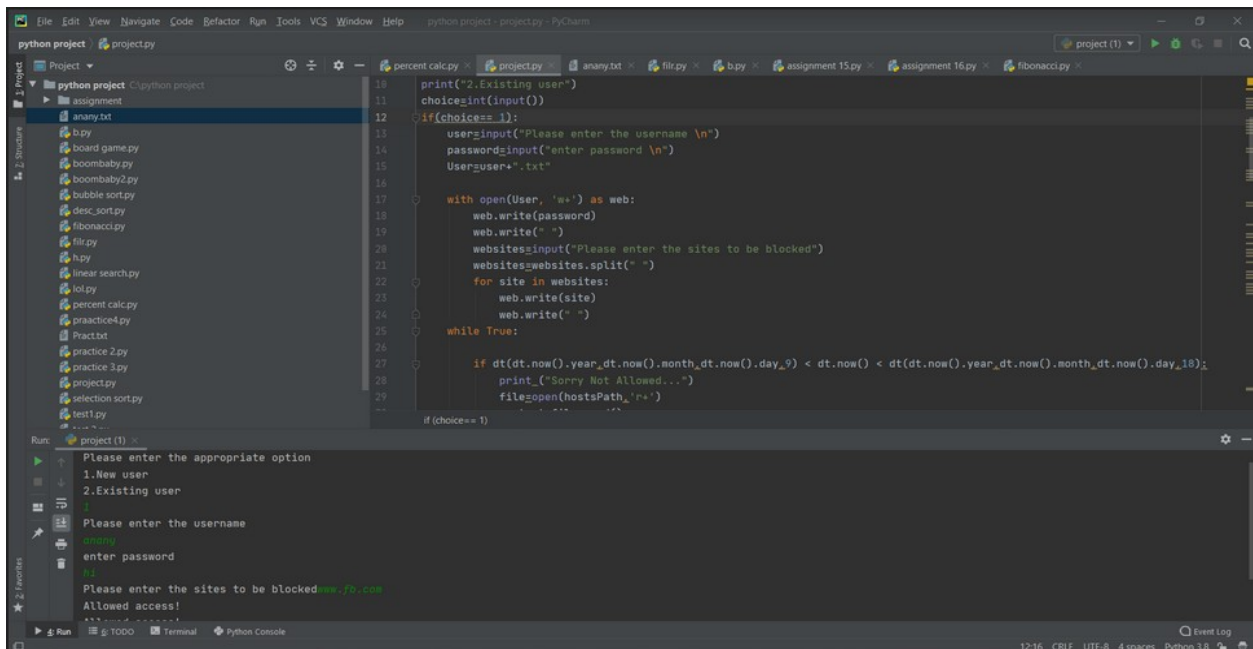
```

if (choice== 1) › with open(User, 'w+') as web › for site in websites

```
71         if dt(dt.now().year, dt.now().month, dt.now().day, 9) < dt.now() < dt(dt.now().year, dt.now().month,
72                                                                                               dt.now().day, 18):
73             print("Sorry Not Allowed...")
74             file = open(hostsPath, 'r+')
75             content = file.read()
76             for site in websites:
77                 if site in content:
78                     pass
79                 else:
80                     file.write(redirect + " " + site + "\n")
81             else:
82                 file = open(hostsPath, 'r+')
83                 content = file.readlines()
84                 file.seek(0)
85                 for line in content:
86                     if not any(site in line for site in websites):
87                         file.write(line)
88                         file.truncate()
89                 print("Allowed access!")
90                 time.sleep(5)
91     else:
92         print("Incorrect password \n")
93
94
95
96
97
```

if (choice== 1) → with open(User, 'w+') as web → for site in websites

Test Case 1:-



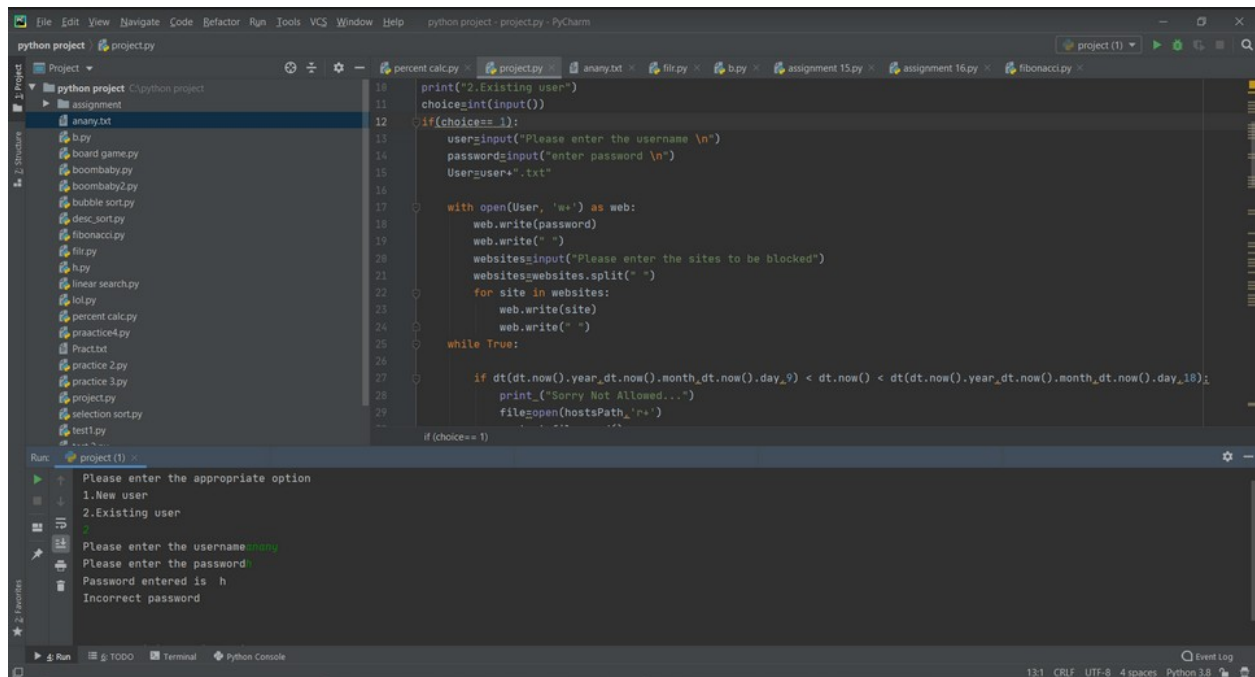
The screenshot shows an IDE with a Python script and its execution output. The script is a web proxy that checks if a user is allowed to access a website based on a password and a list of blocked sites. The output shows the user entering '2' for an existing user, providing a password, and entering 'http://www.fb.com' as a site to be blocked. The script then prints 'Allowed access!'.

```
18 print("2.Existing user")
19 choice=int(input())
20 if(choice== 1):
21     user=input("Please enter the username \n")
22     password=input("enter password \n")
23     User=user+".txt"
24
25     with open(User, 'w+') as web:
26         web.write(password)
27         web.write(" ")
28         websites=input("Please enter the sites to be blocked")
29         websites=websites.split(" ")
30         for site in websites:
31             web.write(site)
32             web.write(" ")
33
34     while True:
35
36         if dt(dt.now().year,dt.now().month,dt.now().day,9) < dt.now() < dt(dt.now().year,dt.now().month,dt.now().day,18):
37             print("Sorry Not Allowed...")
38             file=open(hostsPath,"r+")
39             content = file.read()
40             for site in websites:
41                 if site in content:
42                     pass
43                 else:
44                     file.write(redirect + " " + site + "\n")
45             else:
46                 file = open(hostsPath, 'r+')
47                 content = file.readlines()
48                 file.seek(0)
49                 for line in content:
50                     if not any(site in line for site in websites):
51                         file.write(line)
52                         file.truncate()
53                 print("Allowed access!")
54                 time.sleep(5)
55     else:
56         print("Incorrect password \n")
57
58 if (choice== 1)
59     with open(User, 'w+') as web:
60         for site in websites:
```

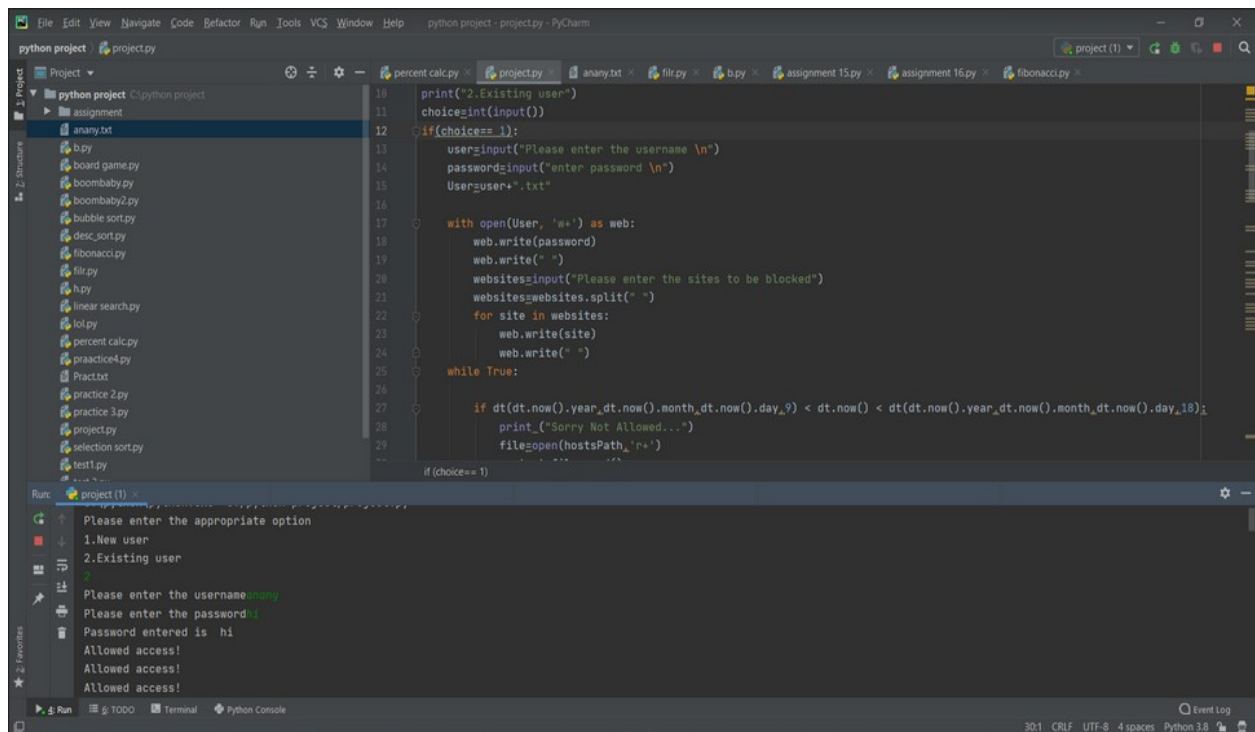
Run: project (1)

Please enter the appropriate option
1.New user
2.Existing user
↓
Please enter the username
shony
enter password
12
Please enter the sites to be blockedhttp://www.fb.com
Allowed access!

Test Case 2:



Test Case 3:



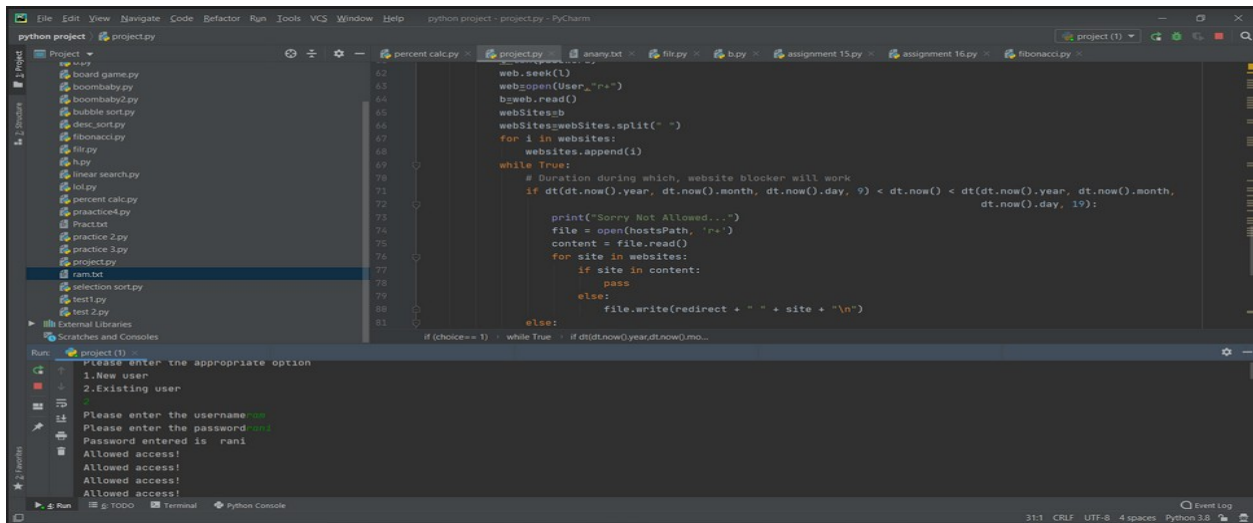
Test Case 4:

```
python project - project.py - PyCharm
File Edit View Navigate Code Refactor Run Tools VCS Window Help
python project - project.py
Project
python project C:\python project
assignment
anany.txt
b.py
board game.py
boom baby.py
boom baby 2.py
bubble sort.py
desc sort.py
fibonacci.py
fil.py
h.py
linear search.py
lol.py
percent calc.py
practice 4.py
Pract.txt
practice 2.py
practice 3.py
project.py
selection sort.py
test1.py
...
percent calc.py
project.py
anany.txt
fil.py
b.py
assignment 15.py
assignment 16.py
fibonacci.py
67
68
69
70
71
72
73
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76
77
78
79
80
81
82
83
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85
86
...
for i in websites:
    websites.append(i)
while True:
    # Duration during which, website blocker will work
    if dt(dt.now().year, dt.now().month, dt.now().day, 9) < dt.now() < dt(dt.now().year, dt.now().month,
        dt.now().day, 22):
        print("Sorry Not Allowed...")
        file = open(hostsPath, 'r+')
        content = file.read()
        for site in websites:
            if site in content:
                pass
            else:
                file.write(redirect + " " + site + "\n")
        else:
            file = open(hostsPath, 'r+')
            content = file.readlines()
            file.seek(0)
            for line in content:
                if not any(site in line for site in websites):
                    file.write(line + "\n")
            else:
                with open(User, 'r') as web:
                    if (password != password):
                        while True:
                            if dt(dt.now().year, dt.now().month, dt.now().day, 9) < dt.now() < dt(dt.now().year, dt.now().month,
                                dt.now().day, 22):
                                print("Sorry Not Allowed...")
                                continue
                            else:
                                pass
Run
project (1)
C:\python\python.exe "C:/python project/project.py"
Please enter the appropriate option
1.New user
2.Existing user
2
Please enter the username anany
Please enter the password hi
Password entered is hi
Sorry Not Allowed...
Sorry Not Allowed...
Run
TODO
Terminal
Python Console
15:1 CRUF UTF-8 4 spaces Python 3.8
```

Test Case 5:

```
python project - project.py - PyCharm
File Edit View Navigate Code Refactor Run Tools VCS Window Help
python project - project.py
Project
python project C:\python project
assignment
anany.txt
b.py
board game.py
boom baby.py
boom baby 2.py
bubble sort.py
desc sort.py
fibonacci.py
fil.py
h.py
linear search.py
lol.py
percent calc.py
practice 4.py
Pract.txt
practice 2.py
practice 3.py
project.py
selection sort.py
ram.txt
...
percent calc.py
project.py
anany.txt
fil.py
b.py
assignment 15.py
assignment 16.py
fibonacci.py
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...
password1 = password1 + 1
websites=[]
if (password != password):
    if len(password) > 8:
        web.seek(1)
        web=open(User, "r+")
        b=web.read()
        websites=b
        websites=websites.split(" ")
        for i in websites:
            websites.append(i)
        while True:
            # Duration during which, website blocker will work
            if dt(dt.now().year, dt.now().month, dt.now().day, 9) < dt.now() < dt(dt.now().year, dt.now().month,
                dt.now().day, 22):
                print("Sorry Not Allowed...")
                file = open(hostsPath, 'r+')
                content = file.read()
                for site in websites:
                    if site in content:
                        pass
                    else:
                        file.write(redirect + " " + site + "\n")
            else:
                with open(User, 'r') as web:
                    if (password != password):
                        while True:
                            if dt(dt.now().year, dt.now().month, dt.now().day, 9) < dt.now() < dt(dt.now().year, dt.now().month,
                                dt.now().day, 22):
                                print("Sorry Not Allowed...")
                                continue
                            else:
                                pass
Run
project (1)
Please enter the appropriate option
1.New user
2.Existing user
2
Please enter the username ram
Please enter the password ram
Please enter the sites to be blocked www.ramram.com
Sorry Not Allowed...
Run
TODO
Terminal
Python Console
15:1 CRUF UTF-8 4 spaces Python 3.8
```


Test Case 6:

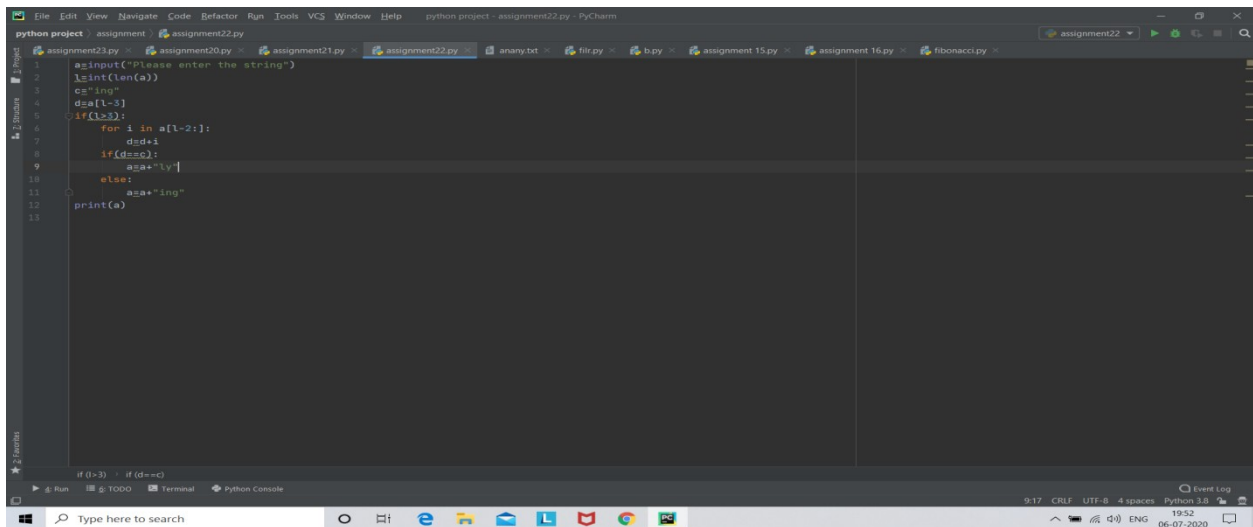


```
python project - project.py - PyCharm
File Edit View Navigate Code Refactor Run Tools VCS Window Help
python project - project.py
Project
board game.py
boomababy.py
boomababy2.py
bubble sort.py
cnc sort.py
fibonacci.py
file.py
h.py
linear search.py
lot.py
percent calc.py
practice4.py
Practbd
practice 2.py
practice 3.py
project.py
ram.txt
selection sort.py
test.py
Test 2.py
External Libraries
Scratches and Consoles
Run
project (1)
Please enter the appropriate option
1.New user
2.Existing user
Please enter the username:
Please enter the password:
Password entered is: ram1
Allowed access!
Allowed access!
Allowed access!
Allowed access!
Event Log
31:1 CRLF UTF-8 4 spaces Python 3.8
```

Assignment - 22

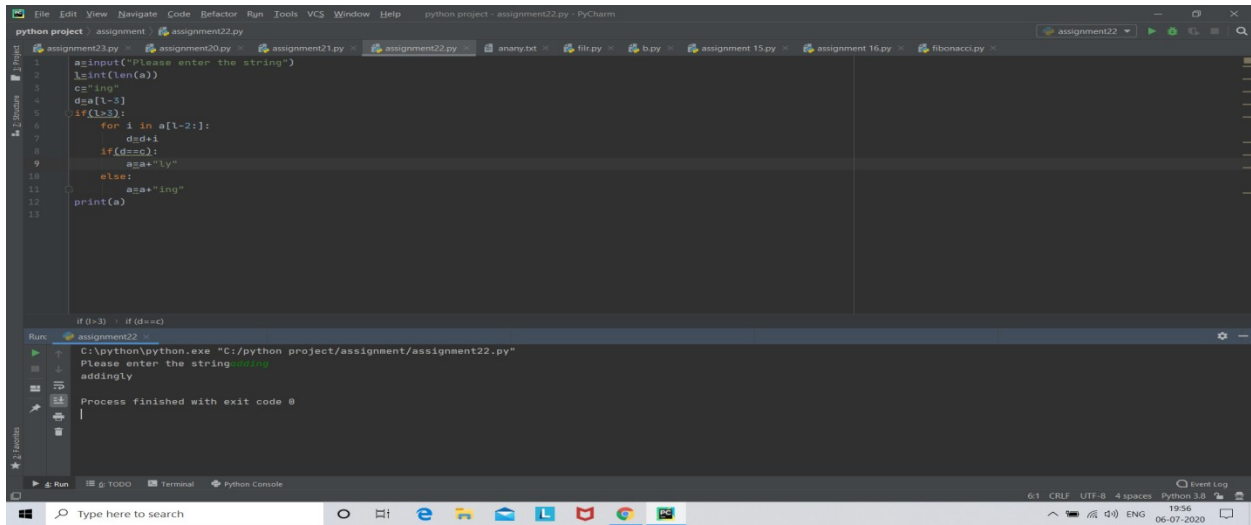
Que: Write a Python Program to add 'ing' at the end of a given string (length should be at least 3). If the given string already ends with 'ing' then add 'iy' instead. If the string length of the given is less than 3,leave it unchanged.

Code:



```
python project - assignment22.py - PyCharm
File Edit View Navigate Code Refactor Run Tools VCS Window Help
python project - assignment22.py
Project
assignment23.py
assignment20.py
assignment21.py
assignment22.py
anany.txt
file.py
b.py
assignment 15.py
assignment 16.py
fibonacci.py
assignment22.py
a=input("Please enter the string")
l=len(a)
c="ing"
d=a[l-2:]
if(l>2):
    for i in a[l-2:]:
        d+=i
    if(d==c):
        a+="iy"
    else:
        a+="ing"
print(a)
Event Log
9:17 CRLF UTF-8 4 spaces Python 3.8
1952
06-07-2020
```

Test Case:



```
python project - assignment - assignment22.py
1 a=input("Please enter the string")
2 len=len(a)
3 cs="ing"
4 ds="l-5"
5 if(l>2):
6     for i in a[1-2:]:
7         ds+=i
8         if(ds==cs):
9             ds="l-5"
10            else:
11                ds="ing"
12    print(a)
13
```

Run: C:\python\python.exe "C:/python project/assignment/assignment22.py"

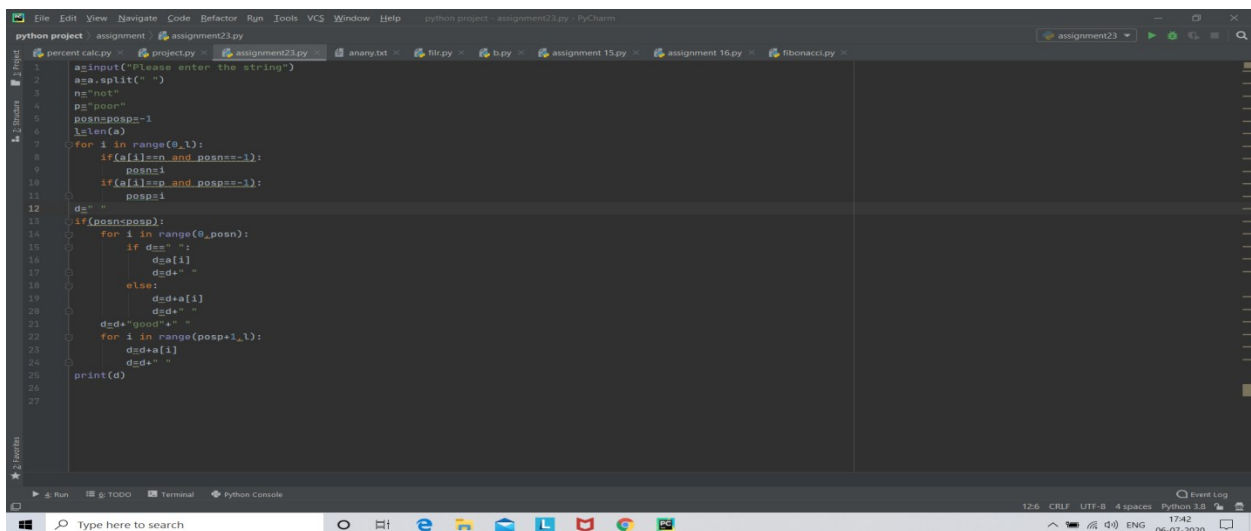
Please enter the string: addingly

Process finished with exit code 0

Assignment - 23

Que: Write a Python Program to find the first appearance of the substring 'not' and 'poor' from a given string, if 'not' follows the 'poor', replace the whole 'not'... 'poor' substring with 'good'. Return the resulting string.

Code:



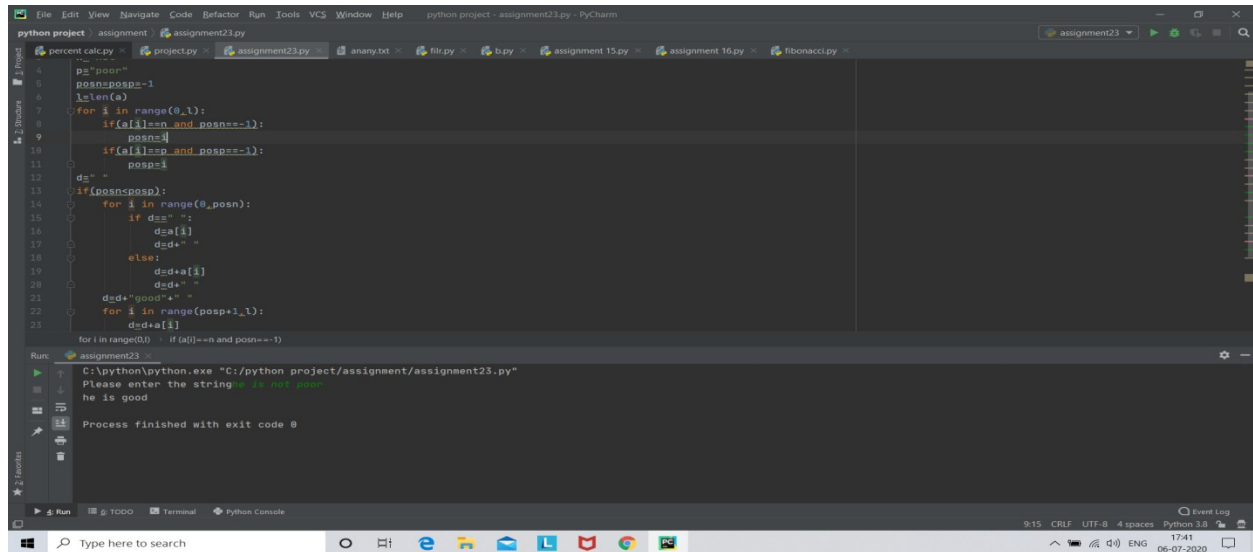
```
python project - assignment - assignment23.py
1 a=input("Please enter the string")
2 a=a.split(" ")
3 ns="not"
4 ps="poor"
5 posn=pspos=1
6 len=len(a)
7 for i in range(0,len):
8     if(a[i]==ns and posn==1):
9         posn=i
10    if(a[i]==ps and posps==1):
11        posps=i
12    ds=""
13    if(posn<posps):
14        for i in range(0,posn):
15            if ds==" ":
16                ds+=a[i]
17            else:
18                ds+=a[i]
19            ds+=a[i]
20        ds+=a[i]
21        ds+=a[i]
22        for i in range(posps+1,len):
23            ds+=a[i]
24        ds+=a[i]
25    print(ds)
26
```

Run: C:\python\python.exe "C:/python project/assignment/assignment23.py"

Please enter the string: The cat was not poor

Process finished with exit code 0

Test Case:



The screenshot shows the PyCharm IDE with a Python script named `assignment23.py`. The script defines a function `isGood` that takes a string `a` and returns `True` if the string is "good" and `False` otherwise. The script also includes a `main` function that prompts the user to enter a string and prints the result of `isGood`. The output window shows the execution of the script, where the user entered "he is good" and the program printed `True`.

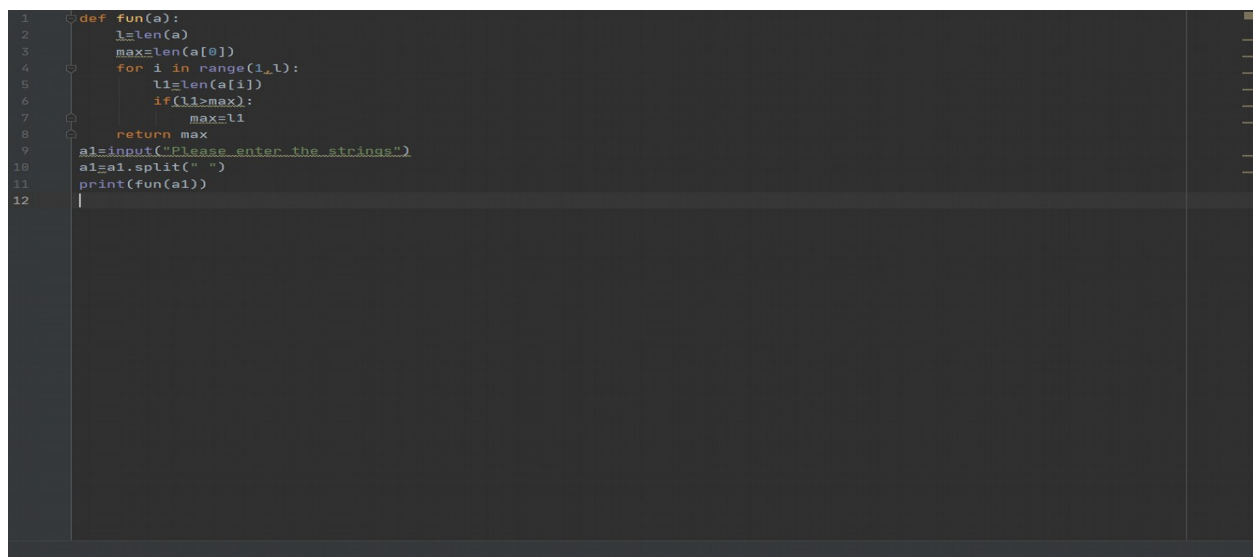
```
python project - assignment23.py - PyCharm
python project - assignment23.py
4 p = "poor"
5 posn = posn - 1
6 len(a)
7 for i in range(0, len(a)):
8     if (a[i] == 'n' and posn == -1):
9         posn = i
10        if (a[i] == 'p' and posn == -1):
11            posn = i
12        d = ""
13        if (posn == posn):
14            for i in range(0, posn):
15                if d == " ":
16                    d = a[i]
17                    d = d + " "
18                else:
19                    d = d + a[i]
20                    d = d + " "
21            d = d + "good" + " "
22            for i in range(posn + 1, len(a)):
23                d = d + a[i]
24            for i in range(0, len(a)):
25                if (a[i] == 'n' and posn == -1):
26                    posn = i
27                if (a[i] == 'p' and posn == -1):
28                    posn = i
29                d = d + a[i]
30            d = d + " "
31            if (d == "poor"):
32                return False
33            else:
34                return True
35    return True
36
37 def main():
38     a = input("Please enter the string: ")
39     a = a.split(" ")
40     print(isGood(a))
41
42 if __name__ == '__main__':
43     main()
```

Run: assignment23.py
C:\python\python.exe "C:/python project/assignment/assignment23.py"
Please enter the string: he is good
True
Process finished with exit code 0

Assignment - 24

Que: Write a Python function that takes a list of words and returns the length of the longest one.

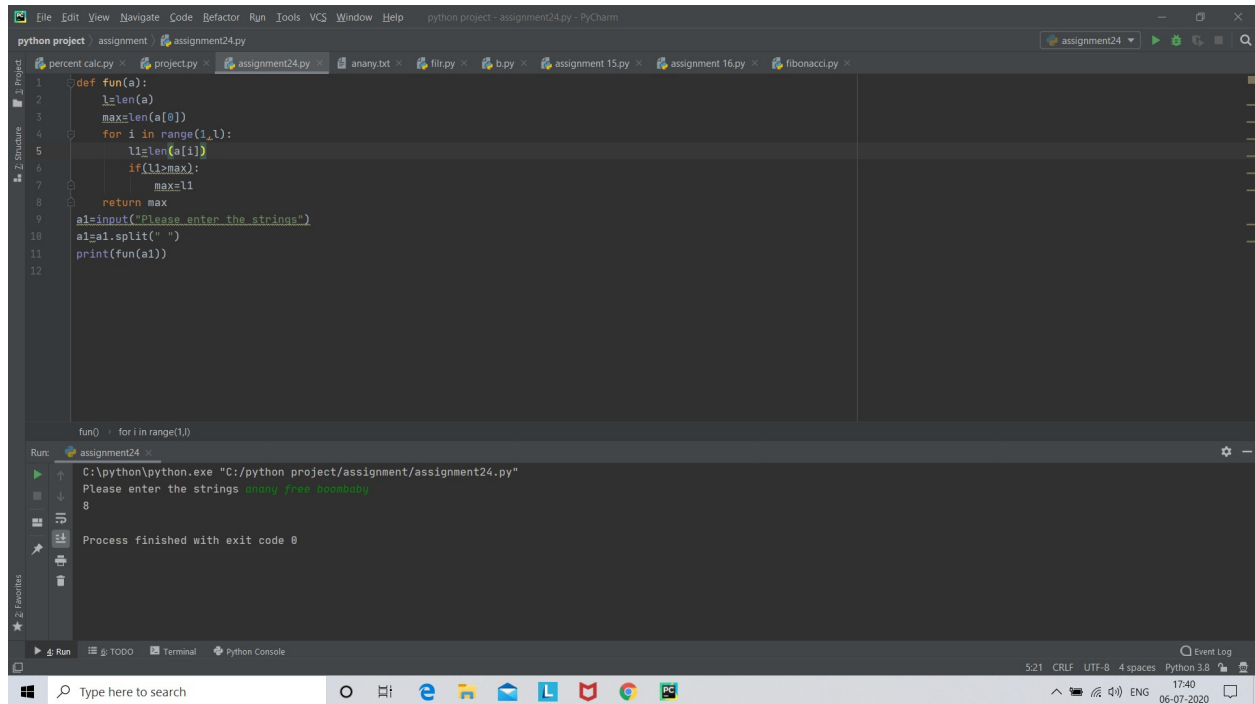
Code:



The screenshot shows a Python script in a code editor. The script defines a function `fun` that takes a list `a` and returns the length of the longest word in the list. The script also includes a `main` function that prompts the user to enter a string and prints the result of `fun`.

```
1 def fun(a):
2     l = len(a)
3     max = len(a[0])
4     for i in range(1, l):
5         l1 = len(a[i])
6         if (l1 > max):
7             max = l1
8     return max
9
10 a = input("Please enter the strings:")
11 a = a.split(" ")
12 print(fun(a))
```

Test Case:



The screenshot displays the PyCharm IDE interface. The main editor window shows a Python file named `assignment24.py` with the following code:

```
1 def fun(a):
2     l=len(a)
3     max=len(a[0])
4     for i in range(1,l):
5         l1=len(a[i])
6         if(l1>max):
7             max=l1
8     return max
9 a=input("Please enter the strings")
10 a1=a.split(" ")
11 print(fun(a1))
12
```

Below the editor, the Run console shows the execution of the script. The command executed is `C:\python\python.exe "C:/python project/assignment/assignment24.py"`. The output shows the prompt "Please enter the strings" followed by the input "anany free bombaby" and the result "8". The console also indicates "Process finished with exit code 0".

The bottom status bar shows the file encoding as UTF-8, 4 spaces, and Python 3.8. The system tray at the bottom right indicates the date and time as 06-07-2020, 17:40.