

Loops (while)

```
i = 1
pwhile i <= 5:
    print(i)
    i = i + 1
print('Have a good day')</pre>
```

```
"C:\Users\Hiren Par
1
2
3
4
5
Have a good day
```

```
i = 1
    while i <= 5:
        print(i * '*|')
        i = i + 1
    print('Have a good day')</pre>
```

```
"C:\Users\Hiren Pa
*

**

**

***

***

Have a good day
```



Loops (while – simple program)

www.hbpatel.in

```
# Let us ask the user to make a guess (between 1 to 10) and s/he makes right guess, appropriate message should be printed

# We shall offer three attempts for the guess and s/he can't make the right guess, another appropriate message should be printed

private_number = 7

guessing_attempts = 3

guessing_counter = 0

while guessing_counter < guessing_attempts:

my_guess = int(input('Guess a number : '))

guessing_counter += 1

if my_guess == private_number:

print('Congratulations: You have made a right guess! ')

break

else:

print('Sorry: You are run out of all the attempts...better luck next time')
```

```
"C:\Users\Hiren Patel\PycharmProjects\HelloWorld\venv\Scripts\pythol
Guess a number : 1
Guess a number : 2
Guess a number : 3
Sorry: You are run out of all the attempts...better luck next time
```

```
"C:\Users\Hiren Patel\PycharmProjects\HelloWorld
Guess a number : 1
Guess a number : 7
Congratulations: You have made a right guess !
```

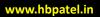




Loops (while – simple program)

```
# Write a menu driven program to turn a bulb ON/OFF
action = "
bulb_status = False
while True:
    action = input (" : ").upper()
    if action == "ON":
        if bulb_status:
            print('Bulb is already ON')
            print('Turning ON the bulb....Bulb is ON now')
            bulb status = True
    elif action == "OFF":
        if not bulb status:
            print('Bulb is already OFF')
            bulb_status = False
    elif action == "HELP":
        print('Valid Commands: ON, OFF, HELP, EXIT')
    elif action == "EXIT":
        break
print('Have a great day')
```

```
bulb
app X
"C:\Users\Hiren Patel\PycharmProjects\HelloWoo
Valid Commands: ON, OFF, HELP, EXIT
Turning ON the bulb....Bulb is ON now
Bulb is already ON
Turning OFF the bulb....Bulb is OFF now
Bulb is already OFF
Have a great day
Process finished with exit code 0
```





Loops: Countdown Timer

```
import time
def countdown(t):
    while t:
        mins, secs = divmod(t, 60)
        print(mins, ":", secs)
        time.sleep(1)
        t -= 1
    print('Fire....')

t = input("Enter the time in seconds: ")
countdown(int(t))
```

```
Enter the time in seconds: 10
0: 10
0: 9
0: 8
0: 7
0: 6
0: 5
0: 4
0: 3
0: 2
0: 1
Fire...
```



Loops (for)

www.hbpatel.in

```
for item in ['Hiren', 'Sanjay', 'Vijay', 'Pradip', 'Parimal']:
for item in 'Python Coding':
                                     print(item)
    print(item)
                                                                        "C:\Users\H
                                                                "C:\Use
        for item in [1, 2, 3, 4]:
                                                                        Hiren
             print(item)
                                                                        Sanjay
                                                                        Vijay
        "C:\Us
                                                                3
                                                                        Pradip
                                                                        Parimal
                     item in range (10):
        2
                                                                6
                      print(item)
        3
        4
                                                                9
```



Loops (for)

www.hbpatel.in

```
for item in range(5, 10):
    print(item)

"C:\Us
5
6
7
8
9
```

```
for.py

for item in range(5, 10, 2):

print(item)
```

```
app
"C:\Us
5
7
9
```