

Syllabus Practicals

Create a program that asks user to enter their name and their age. Print out a message addressed to them that tells them the year that they will turn 100 years old.

```
In [1]: name = input("Please enter your name: ")
age = int(input("Please enter your age: "))
print("Hi {} after 100 years you will be {} old ".format(name, age + 10))
```

Please enter your name: Dr. Saket
Please enter your age: 35
Hi Dr. Saket, after 100 years, you will be 135 old

Ask the user for a number. Depending on whether the number is even or odd, print out an appropriate message to the user.

```
In [4]: number = input("Please enter a number : ")      # input always return a str
number = int(number)                                  # typecasting
remainder = number % 2
if remainder == 0:
    print("You have entered an even number.")
else:
    print("You have entered an odd number.")
```

Please enter a number : 35
You have entered an odd number.

In []:

1

3. Take a list, say for example this one:

```
a = [1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89]
```

and write a program that prints out all the elements of the list that are less than 5.

Extras:

a) Instead of printing the elements one by one, make a new list that has all the elements less than 5 from this list in it and print out this new list.

b) Write this in one line of Python.

c) Ask the user for a number and return a list that contains only elements from the original list a that are smaller than that number given by the user.

```
In [5]: list_given = [1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89]
for one_element in list_given:
    if one_element < 5:
        print("Element is ", one_element)
```

```
Element is 1
Element is 1
Element is 2
_
```

```
In [13]: list_given1 = [] # Empty list
list_size = int(input("Enter the size of list: "))

for i in range(list_size):
    list_given1.append(int(input("Enter the element of list: ")))

print("Values less than 5 are -----")

for one_element in list_given1:
    if one_element < 5:
        print("Element is " + one_element)
```

```
Enter the size of list: 6
Enter the element of list: 3
Enter the element of list: 8
Enter the element of list: 2
Enter the element of list: 0
Enter the element of list: 4
Enter the element of list: 5
Values less than 5 are -----
Element is 3
Element is 2
Element is 0
Element is 4
```

```
In [10]: x = range(6)
for e in x:
    print(e)
```

```
0
1
2
3
4
5
```

```
In [ ]:
```