```python
l1=[]
for i in range(101):
    if i%10==0:
        l1.append(i)

print(l1)
```

```
[0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100]
```

#2. Write a Python program to find the maximum number of a list of numbers. (with and with out max())
```python
l2=[4,6,78,1,0,45]
temp=-1;
for i in l2:
    if i >temp:
        temp=i
print(temp)
```

```
78
```

```python
l2=[4,6,78,1,0,45]
temp=-1;
for i in l2:
    if i >temp:
        temp=max(i,temp)
print(temp)
```

```
78
```

#3. Write a program that takes a list of integers called numbers and replaces each element greater than 10 with a '*'. Print the new version of numbers.

```python
l3=[4,6,78,1,0,45]

for idx in range(len(l3)):
    if l3[idx] > 10:
        l3[idx] = '*'
print(l3)
```

```
[4, 6, '*', 1, 0, '*']
```

```python
l5 = [-3,-2,-1,0,1,2

if l5[0] > 0:
    temp = 2**31 - 1
    for i in l5:
        if i < temp:
            temp = i
else:
    temp = -2**31
```

```python
    for i in l5:
        if i > temp:
            temp = i

l5.append(temp + 1)
l5.append(temp + 2)

print(l5)
```

```
[-3, -2, -1, 0, 1, 2, 3, 4]
```

```python
num=int(input("enter a number"))
l6=[]

for i in range(1,num+1):

    if num % i == 0:
      l6.append(i)

print(l6)
```

```
enter a number 12
```

```
[1, 2, 3, 4, 6, 12]
```

```python
 #Student Grades: Given a list of student grades, calculate the
average grade. Find the highest and lowest grades in the list Count
how many students passed (grade >=50)

marks=[15 ,40 , 55 , 75 , 84 , 33 ,95]
avg=0
for i in marks:
    avg = avg + i

avg=avg/len(marks)

Lowest=2**31-1;

for i in marks:
   if i <Lowest:
      Lowest =i;

 Highest = -2**31;
for i in marks:
        if i > Highest:
            Highest = i
count=0
for i in marks:
    if i >= 50:
        count=count+1;
```

```python
print(f"average grade : { avg}")
print(f"highest grade :  {Highest}")
print(f"lowest grade :  {Lowest}")
print(f"No. of students which get gretaer than equal to 50 :
{count}")
```

```
average grade : 56.714285714285715
highest grade :   95
lowest grade :   15
No. of students which get gretaer than equal to 50 :   4
```

```python
numbers = [1, 2, 2, 3, 1, 4, 2, 3]

counted = []

for num in numbers:
    if num not in counted:
        count = 0
        for i in numbers:
            if i == num:
                count += 1
        print(num, "occurs", count, "times")
        counted.append(num)
```

```
1 occurs 2 times
2 occurs 3 times
3 occurs 2 times
4 occurs 1 times
```