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Training Sessions

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Date	Sep-06-2024	Session No	2
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Topic : Python Basics - for loop, while loop

```
main.py +
1  '''
2  if True:
3      print('something')
4
5  for i in range(200, 300):
6      if i%6==0:
7          print('Div by 6 : ', i)
8      else:
9          print('This number is not div by 6: ', i)
10 '''
11 # 1 to 10 only if they are not div by 4
12
13 '''
14 for i in range(1, 11):
15     if i%4!=0:
16         print(i)
17 '''
18
19 i = 1
20 while i<=11:
21     if i%4!=0:
22         print(i)
23     i = i+2
24
25
```

Assignment - Questions :**Level 1**

1. Write a for loop to print all even numbers between 1 and 20.
2. Write a for loop to print numbers between 30 and 50 that are divisible by 5.
3. Write a for loop to print the square of each number from 1 to 10.
4. Write a while loop to print all odd numbers between 1 and 15.
5. Write a while loop to print numbers from 100 down to 50 that are divisible by 10.
6. Write a for loop to print all prime numbers between 1 and 50.
7. Write a while loop to print the first 10 numbers of the Fibonacci sequence.
8. Write a for loop to print the multiplication table of 7.
9. Write a while loop to keep doubling a number until it exceeds 1000, starting from 1.
10. Write a for loop to print numbers between 1 and 20, but skip numbers divisible by 3.

Level 2

11. Write a **for** loop to print all numbers between 1 and 50, but stop the loop when you encounter a number divisible by both 8 and 9.
12. Write a **while** loop to calculate the sum of all numbers between 1 and 100 that are divisible by 4, and print the result.
13. Write a **for** loop to print all the digits of a given number in reverse order (e.g., for 1234, print 4 3 2 1).
14. Write a **while** loop to find the smallest number greater than 500 that is divisible by both 7 and 13.
15. Write a **for** loop to print the first 10 terms of the arithmetic sequence starting with 5, with a common difference of 3 (i.e., 5, 8, 11, ...).
16. Write a **while** loop to find the factorial of a given number, and print the result.

END