

Lab 02
OOP – BSDS

Note 1: Do your own work, talking, sharing, discussion is considered as cheating (in any case and strictly discouraged), therefore be careful. TA's will be there for your help. Wait for TA, if you have any query

Note 2: Do your best effort, partial marks will be given for your attempt

Task 0: You may skip this task; this task is given for your help only:

```
import random

def main():
    x = random.randint(30, 60)
    print (x)
    first_digit = x // 10
    second_digit = x % 10
    print ("First Digit:", first_digit)
    print ("Second Digit:", second_digit)

main()
```

Task 1: Write a program to generate random number in the range zero to 99 both inclusive. Print generated number. Next print same number in English words. See sample run for better understanding?

Sample Run:

```
82    eighty two
2     two
22    twenty two
40    forty
58    fifty eight
27    twenty seven
6     six
```

Task 2: Input date from user and verify it is correct or not. Input date by input day, month & year separately and check:

- Every input value should be positive
- Year should be in 4 figures, means greater than equal 1000

The month of February normally has 28 days. But if it is a leap year, February has 29 days. Write a program that asks the user to enter a year. The program should then display the number of days in February that year. Use the following criteria to identify leap years:

1. Determine whether the year is divisible by 100. If it is, then it is a leap year if and only if it is also divisible by 400. For example, 2000 is a leap year, but 2100 is not.
2. If the year is not divisible by 100, then it is a leap year if and only if it is divisible by 4. For example, 2008 is a leap year, but 2009 is not.

Sample Run:

Enter a year: 2008 Enter

In 2008 February has 29 days.

Task 3: Consider above code, in order to arrange a, b, c & d in ascending order, there are 24 permutations possible. Write program to arrange them using nested if-else, where each if should have single check only (composite conditions are not allowed). For your guidance, a similar program to arrange 3 numbers is given in the folder.

```
a = random.randint(1,99)
b = random.randint(1,99)
c = random.randint(1,99)
d = random.randint(1,99)
print (a," ",b," ",c," ",d)
```

END OF LAB (Best of Luck)
