# Lab 08

**Task 1: Write a program to generate 5 random numbers, print them in single line, next print them in pairs, see sample output for further understanding:**

```
23089 25223 29763 26756 21076
( 23089 , 25223 )
( 25223 , 29763 )
( 29763 , 26756 )
( 26756 , 21076 )
```

**Task 2: Write a program to generate 10 random numbers in range 1-9. Print numbers in first column and their cumulative sum in second column. Cumulative sum is the running sum that is you are printing sum, as you are calculating sum. See sample output for further understanding and output format:**

```
1       1
1       2
3       5
3       8
3       11
3       14
2       16
2       18
1       19
8       27
```

**Task 3: Write a program to generate 10 random numbers in range 1-50. Print numbers in first line. Find and print average in integer (not in floating point). Print numbers again by subtracting average number from each number. See sample output for further understanding and output format:**

```
  17    47    24    23    21    22    13    47    41    25
  Average: 28
 -11    19    -4    -5    -7    -6   -15    19    13    -3
```

**Task 4: Write a program to generate 10 floating point random numbers in range 20-40. Calculate m1, m2 & m3. If number is less than m1, print message 1. If number is less than m2, print message 2. If number is less than m3, print message 3, otherwise print message 4. Messages are written below in the box. See sample output for further understanding and output format:**

1. M2 = Average of numbers
2. M1 = Average of min and M2
3. M3 = Average of max and M2

```
40.00 34.83 26.80 34.00 26.75 29.00 39.67 32.57 32.00 25.00
M1: 28.53       M2: 32.06       M3: 35.86
Day 1 has hot weather
Day 2 has above moderate weather
Day 3 has pleasant weather
Day 4 has above moderate weather
Day 5 has pleasant weather
Day 6 has below moderate weather
Day 7 has hot weather
Day 8 has above moderate weather
Day 9 has below moderate weather
Day 10 has pleasant weather
```

```
Message 1: Day no has pleasant weather
Message 2: Day no has below moderate weather
Message 3: Day no has above moderate weather
Message 4: Day no has hot weather

Note: Print corresponding no for each day
```