The below assignment is having three parts.
Please check the below comments before starting the assignment

--First Part-- Two working days to complete the first part of your assignment
--Start date 4rthNov2019 and end date 5thNov2019. Please deploy your code in your github repository on 6thNov2019 before 8PM

1. Write program to print the kth digit from last.e.g.input 23617 and k = 4 output 3.
2. Write a program to print first digit.e.g.input 23516 output 2.
3. Write program to print the second digit.e.g.input 23516 the output is 3.
4. Write program to find sum of all digits.Input 23617 output 2+3+6+1+7=19.
5. Write program, which will find sum of product to consecutive digits.e.g.when the input is 23145 the output is 2x3 + 3x1 + 1x4 + 4x5 = 33.
6. Write program, which reads two number (assume that both have same number of digits). The program outputs the sum of product of corresponding digits.Input 327 and 539 output 3x5+2x3+7x9= 84.
7. Write program to print positional values of digits. Input 21463 output 3, 60, 400, 1000 and 20000.
8. Write program to find sum of even digits. Input 23617 output 2+6=8.
9. Write program to find number of digits.Input 423 output 3. Input 21151 output 5.

10. Write program to find number of even digits. In above case 2 and 1 respectively.
11. Write program to print the last even digit. e.g.input 23613 output 6.
[Hint:while (x%2 1 0) x=x/10]
12. Program to print the digit immediately before the last even digit.In above case 3.
13. Write program to print the digit immediately after the last even digit.In above case 1.
14. Write program to print the last digit, which is multiple of 3. e.g.input 23617 output 6.
15. Write program to print the second last even digit.e.g.input 23863 output 8 (do not use â€˜ifâ€™). Input 325145761 output 4. [Hint: use two loops]
16. Read a number.Do half of number after last odd digit.Input 3 times.Input 61389426 output 184167639 (61389213*3). Input 87 output 261. Input 78 output 222 (74*3).
17. Write program, which finds the sum of numbers formed by consecutive digits.Input 2415 output 24+41+15=80.
18. Find sum of numbers formed by exchanging consecutive digits.In above 42+14+51=107.

--Second Part Two working days
--Start date 6thNov2019 and end date 7thNov2019. Please deploy your code in your github repository on 8thNov2019 before 8PM

19. Find smallest number in an array.
20. Find largest number in an array.
21. Count even numbers in an array.
22. Count occurrence of a given number in an array.
23. Check if given number is palindrome or not.
24. Input two arrays and merge them in a new array in ascending order.
25. Find Addition of two 3X3 matrices.
26. Find Multiplication of two 3X3 matrices.
27. Find Transpose of a given matrices.
28. Implement Binary Search.
29. Implement Bubble Sort.
30. Implement Selection Sort.
31. Implement Insertion Sort.

--Third Part Three working days
--Start date 8rthNov2019 and end date 11thNov2019. Please deploy your code in your github repository on 12thNov2019 before 6PM

32 Write program to remove 2nd letter. Let the input string is pwsxtpbcderxrtxgt then output is pwxtpbcderxrtxgt.

33. Write program to add 0th letter in the beginning. In above case ppwsxtpbcderxrtxgt

34. Write program to exchange first two letters.In above case wpsxtpbcderxrtxgt.

35. Write program to exchange 4th and 10th letter. In above case pwsxrpbcdetxrtxgt.

36. Write program to insert â€˜tâ€™ between 1st and 2nd letter. In above case pwtsxtpbcderxrtxgt. [Hint: a +â€□ +b].

```
a= o.readLine();
   i=a.indexOf('x');
System.out.println(i);
```

At what location 'x' is present.If more than one occurrence of 'x' is there then the location of first 'x' is returned.If 'x' is absent then -1 is returned.e.g.input wedxtyhxu output 3

```
int i; String a, b, c, d; i=a.indexOf('x');
b=a.substring(0,i);c=a.substring(i+1);
d=b+c; System.out.println(d);
```

The first 'x' in the given string is deleted.

37. Write a program, which reads a string and finds string after the first x.Let the input string is pwsxtpbcderxrtxgt then output is tpbcderxrtxgt.

38. Write program to replace first x by y.In above case pwsytpbcderxrtxgt.

39. Write program to output the location of second x.In above case 11.

40. Write program to print the string between 1st and 2nd x. In above case tpbcder.

41. Write program to find string before 2nd x. In above case pwsxtpbcder.

42. Write program to delete the string between 1st and 2nd x. In above case pwsxxrtxgt.

43. Program to exchange the string between 1st and 2nd x, with the string before 1st x. In above case tpbcderxpwsxrtxgt

44. Write program to exchange neighbors of first x. In above case pwtxspbcderxrtxgt.

```
char b; a=o.readLine();b=a.charAt(2);
System.out.println(b);
```

Program outputs character at location 2. e.g.input qwertyuiuo output e

45. Write program to find 2nd location of 0th letter.Input pwerpty output 4.

46. Write program, which will delete 1st y immediately after 1st x. If input string is pgyeryuyixaysdyexer then output is pgyeryuyixasdyexer.

47. Write program to exchange neighbors of first occurrence of left neighbors of first â€˜xâ€™. e.g. input abcdefxgh output abcdxfegh. input abfcdefxgh output acfbdefxgh.

48. Write program to replace first occurrence of right neighbor of 2nd x by left neighbor of 1st x. Input imgpxugxutkl output imgpxpgxutkl. Input bcxdefxgh output bcxdefxch.

49. Write program, which reads a string. Let x and y be respectively left and right neighbors of the second occurrence of the 0th letter. Find the substring between first occurrence of y and (first occurrence of x after first occurrence of y). e.g.input patkgfmpkst output kgfm.Input pastgksfsptse output tgks.Input raklfrgmcfd output gmcf. Input ywetyykjhtl output ywet.

```
a= o.readLine(); b=o.readLine();
i=a.compareTo(b);System.out.println(i);
```

Input two strings.Output is 0 if both are same.If second string is (lexicographically) bigger then a negative number is outputted.If first string is bigger then some positive number is outputted.

Use of â€œifâ€□ is permitted in following programs.

50. Read two strings.Print lexicographically bigger string first and smaller later.

51. Read two string. Print 1 if first string is bigger, 2 if second string is bigger, 0 if both are same.

52. Read three strings.Print 1 if first string is biggest, 2 if second string is biggest, 3 if 3rd string is biggest, 0 if all are same, -1 if 1st and 2nd string are biggest, -2 if 2nd and 3rd string are biggest, -3 if 1st and 3rd string are biggest.

```
a= o.readLine(); a=a.trim();
i=a.indexOf(' ');b=a.substring(0,i);
System.out.println(b);
```

Print first word.Trim removes blank spaces at the beginning and at the end.If it is not used then the problem will arise if blanks are given at the beginning.The program will not work if string has only one word.If string is ram Prasad dey then output is ram.

53. Print second word.In above case Prasad.

54. Delete second word.In above case ram dey.

55. Exchange first and second word.In above case Prasad ram dey.

56. Exchange first letters of first two words.In above case Pam rrasad dey.

57. Exchange last letters of first two words.In above case rad Prasam dey.

58. Find the location of first â€˜aâ€™ in second word. In above case 6.

59. Find location of first letter of first word in second word. In above case 5.

60.Write a C# program which contains a function square() such that square(3) returns 9, square(0.2) returns 0.04.