Java top listed programs

my GitHub -
https://github.com/BobbiliT/JavaPracticeProject.git

1. **Write a java program Check even or odd?**

```
public static void main(String[] args) {
        System.out.println("enter your number: ");
        Scanner s = new Scanner(System.in);
        int num = s.nextInt();
        if (num % 2 == 0) {
              System.out.println("given number is even.");
         } else {
        System.out.println("given number is odd.");

        }
}
```

2. **Write a java program Print the even and odd numbers between 1 to 100?**

```
public static void main(String[] args) {
      System.out.println("enter your numebr :");
     Scanner s = new Scanner(System.in);
     int num=s.nextInt();
     System.out.println("even numbers :");
     for(int i=0; i<=num; i++) {
           if(i%2==0)
               System.out.println(i);
     }
     System.out.println("odd numbers :");
     for(int i=0; i<=num; i++) {
             if(i%2==1)
                 System.out.println(i);
     }
}
```

3. **Wajp Sum of even and odd numbers?**

```
public static void main(String[] args) {
       System.out.println("enter your numebr :");
       Scanner s = new Scanner(System.in);
       int num=s.nextInt();
int sum1 = 0;
        for (int i = 0; i <= num; i++) {
              if (i % 2 == 0) {
                    System.out.println(i);
                    sum1 = sum1 + i;
              }
        }
        System.out.println("sum of even numbers :" + sum1);
        int sum2 = 0;
        for (int i = 0; i <= num; i++) {
              if (i % 2 == 1) {
                    System.out.println(i);
                    sum2 = sum2 + i;
              }
        }
        System.out.println("sum of odd numbers :" + sum2);
}
```

4. **WAJP Count of even and odd numbers?**

```
  public static void main (String [] args) {
      System.out.println("enter your numebr:");
      Scanner s = new Scanner (System.in);
      int num=s.nextInt ();
  int count1 = 0;
```

```
        for (int i = 0; i <= num; i++) {
              if (i % 2 == 0) {
                    System.out.println(i);
                    count1++;
              }
        }
        System.out.println("count of even numbers: " + count1);
        int count2 = 0;
        for (int i = 0; i <= num; i++) {
              if (i % 2 == 1) {
                    System.out.println(i);
                    count2++;
              }
        }
        System.out.println("count of odd numbers: " + count2);
  }
```

5. **Write a java program Sum of the digits?**

```
   public static void main (String [] args) {
        System.out.println("enter your numebr: ");
       Scanner s = new Scanner (System.in);
       int num=s.nextInt();
      while (num! = 0) {
              sum = sum + num % 10;
              num = num / 10;
        }
        System.out.println(sum);
  }
```

6. **WAJP count the total digits?**

```
   public static void main (String [] args) {
        System.out.println("enter your numebr: ");
       Scanner s = new Scanner (System.in);
       int num=s.nextInt();
      int count = 0;
        while (num! = 0) {
              num = num / 10;
              count++;
        }
        System.out.println(count);
  }
```

7. **WAPJ factorial of the given numbers?**

```
  public static void main(String[] args) {
       System.out.println("enter your number:");
        Scanner s = new Scanner(System.in);
        int fact = s.nextInt();
        for (int i = 1; i < 5; i++) {
              fact = fact * i;
        }
        System.out.println(fact);
  }
```

8. **WAJP swap two numbers without 3rd variable?**

```
  public static void main (String [] args) {
   System.out.println("enter your number:");
        Scanner s = new Scanner (System.in);
        int a = s.nextInt();
        int b = s.nextInt();
        System.out.println("Before swapping number " + "a =" + a + "b =" + b);
        a = a + b;
        b = a - b;
        a = a - b;
        System.out.println("Before swapping number " + "a =" + a + "b =" + b);
  }
```

9. **WAJP swap two numbers with 3rd variable?**

```
  public static void main (String [] args) {
```

```
   System.out.println("enter your number:");
          Scanner s = new Scanner (System.in);
          int a = s.nextInt();
          int b = s.nextInt();
          System.out.println("Before swapping number " + "a =" + a + "b =" + b);
          int temp = a;
          a = b;
          b = temp;
          System.out.println("After swapping number " + "a =" + a + "b =" + b);
   }
```

10. WAJP reverse the given string?

```
   public static void main (String [] args) {
    System.out.println("enter your name:");
          Scanner s = new Scanner (System.in);
          String name = s.nextLine();
          String rev = "";
          for (int i = name.length() - 1; i >= 0; i--) {
                rev = rev + name.charAt(i);
          }
          System.out.println("reverse name is:" + rev);
   }
```

11. WAJP reverse the given number?

```
   public static void main (String [] args) {
   System.out.println("enter your number:");
          Scanner s = new Scanner(System.in);
          int num = s.nextInt();
          int rev = 0;
          while (num! =0) {
                rev = rev * 10 + num % 10;
                num = num / 10;
          }
          System.out.println("reverse number is:" + rev);
   }
```

12. WAJP check the number is palindrome or not?

```
    public static void main (String [] args) {
    System.out.println("enter your name:");
          Scanner s = new Scanner(System.in);
          int num=s.nextInt();
          int org_num=num;
          int rev=0;
          while(num!=0) {
                rev=rev*10+num%10;
                num=num/10;
          }
          if(org_num==rev) {
                System.out.println("number is palindrome.");
          }
          else {
                System.out.println("number is not palindrome.");
          }
   }
```

13. WAJP check the name is palindrome or not?

```
    public static void main (String [] args) {
        System.out.println("enter your name:");
          Scanner s = new Scanner(System.in);
          String name = s.nextLine();
          String org_name = name;
          String rev = "";
          for (int i = name.length() - 1; i >= 0; i--) {
                rev = rev + name.charAt(i);
          }
          if (org_name.equals(rev)) {
                System.out.println("name is palindrome.");
          } else {
                System.out.println("name is not palindroem.");
```

```
        }
    }
```

14. WAJP print the palindrome numbers between and count?

```
    public static void main (String [] args) {
       System.out.println("enter your numbers:");
          Scanner s= new Scanner(System.in);
          int num1=s.nextInt();
          int num2=s.nextInt();
          int count=0;
          for(int i=num1; i<num2; i++) {
                int num=i;
                int rev=0;
                while(num!=0) {
                      rev=rev*10+num%10;
                      num=num/10;
                }
                if(rev==i) {
                      System.out.println(i);
                }
                if(rev==i) {
                      count++;
                }
          }
          System.out.println("total number of palindromes: "+count);
    }
```

15. WAJP count even and odd digits?

```
    public static void main (String [] args) {
      System.out.println("enter your numbers :");
          Scanner s = new Scanner(System.in);
          int num = s.nextInt();
          int even = 0;
          int odd = 0;
          int count = 0;
          int rev = 0;
          while (num != 0) {
                rev = rev * 10 + num % 10;
                if (rev % 2 == 0) {
                      even++;
                } else {
                      odd++;
                }
                num = num / 10;
          }
          System.out.println("count even numbers: " + even);
          System.out.println("count odd numbers: " + odd);
    }
```

16. WAJP print the large and small numbers?

```
    public static void main (String [] args) {
       System.out.println("enter your values :");
          Scanner s = new Scanner(System.in);
          int a = s.nextInt();
          int b = s.nextInt();
          int c = s.nextInt();
          if (a > b == a > c) {
                System.out.println("a is largest number :" + a);
          } else if (b > a == b > c) {
                System.out.println("b is largest number :" + b);
          } else {
                System.out.println("c is largest number :" + c);
          }
          if (a < b == a < c) {
                System.out.println("a is smallest number :" + a);
          } else if (b < a == b < c) {
                System.out.println("b is smallest number :" + b);
          } else {
```

```
                System.out.println("c is smallest number :" + c);
        }
    }
```

17. WAJP to the Fibonacci number serious?

```
    public static void main (String [] args) {
        int num1 = 0;
        int num2 = 10;
        int sum = 0;
        for (int i = num1; i <= 10; i++) {
            sum = num1 + num2; // 30+50=80
            System.out.println(sum); // 10
            num1 = num2;
            num2 = sum;

        }
    }
```

18. WAJP reverse each word of the given string?

```
    public static void main (String [] args) {
      System.out.println("enter your input: ");
        Scanner s = new Scanner(System.in);
        String name = s.nextLine();
        String arr[] = name.split(" ");
        for (int i = 0; i < arr.length; i++) {
            System.out.print(arr[i] + " ");
        }
        System.out.println();
        for (int i = arr.length - 1; i >= 0; i--) {
            System.out.print(arr[i] + " ");
        }
    }
```

19. WAJP reverse each letter of the given string?

```
     public static void main (String [] args) {
    System.out.println("enter your input :");
        Scanner s = new Scanner(System.in);
        String name = s.nextLine();
        String arr[] = name.split("");
        for (int i = 0; i < arr.length; i++) {
            System.out.print(arr[i] + "");
        }
        System.out.println();
        for (int i = arr.length - 1; i >= 0; i--) {
            System.out.print(arr[i] + "");
        }
    }
```

20. WAJP convert the first letter of each word into capital?

```
     public static void main (String [] args) {
       System.out.println("enter your name :");
        Scanner s = new Scanner(System.in);
        String name = s.nextLine();
        String arr[] = name.split(" ");
        for (String ss : arr) {
            char firstletter = ss.charAt(0);
            char convert = Character.toUpperCase(firstletter);
            String sub = ss.substring(1);
            System.out.print(convert + sub + " ");
        }
    }
```

21. WAJP check the given number prime or not?

```
     public static void main (String [] args) {
       System.out.println("enter your number: ");
        Scanner s = new Scanner(System.in);
        int num = s.nextInt();
        int count = 0;
        if (num > 1) {
            for (int i = 1; i <= num; i++) {
```

```
                        if (num % i == 0)
                              count++;
                  }
                  if (count == 2) {
                        System.out.println("is prime");
                  } else {
                        System.out.println("is not prime");
                  }
            } else {
                  System.out.println("is not prime.");
            }
      }
```

22. WAJP print and count between prime numbers?

```
      public static void main (String [] args) {
            System.out.println("enter your number :");
            Scanner s = new Scanner(System.in);
            int num1 = s.nextInt();
            int num2 = s.nextInt();
            for (int i = num1; i <= num2; i++) {
                  int count = 0;
                  for (int j = 1; j <= i; j++) {
                        if (i % j == 0)
                              count++;
                  }
                  if (count == 2) {
                        System.out.println(i);
                  }
            }
      }
```

23. WAJP to print the random number?

```
      public static void main (String [] args) {
            Random rand = new Random();
            int r = rand.nextInt(10);
            System.out.println("print random number: " + r);
      }
```

24. WAJP sum of the given array?

```
      public static void main (String [] args) {
            int arr [] = {1, 2, 3, 4, 5, 6, 7};
            int sum = 0;
            for (int i = 0; i < arr.length; i++) {
                  sum = sum + arr[i];
            }
            System.out.println("sum of array is :" + sum);
      }
```

25. WAJP print the even and odd numbers form array?

```
     public static void main (String [] args) {
          int arr[] = {1, 2, 3, 4, 5, 6 };
            System.out.println("print even numbers form an array :");
            for (int i = 0; i < arr.length; i++) {
                  if (arr[i] % 2 == 0)
                        System.out.println(arr[i]);
            }
            System.out.println("print odd numbers form an array :");
            for (int i = 0; i < arr.length; i++) {
                  if (arr[i] % 2 == 1)
                        System.out.println(arr[i]);
            }
      }
```

26. WAJP to check the array is equal or not?

```
      public static void main (String [] args) {
            int a[] = { 1, 2, 3, 4, 5, 6 };
            int b[] = { 1, 2, 3, 4, 5, 6 };
            boolean result = true;
            if (a.length == b.length) {
                  for (int i = 0; i < a.length; i++) {
```

```
                        if (a[i]!= b[i])
                                System.out.println("array is equal :" + a[i]);
                        result = true;
                }
        } else {
                result = false;
        }
        if (result == true) {
                System.out.println("array is equal");
        } else {
                System.out.println("array is not equal");
        }
    }
```

27. WAJP print the unique numbers from an Array?

```
    public static void main (String [] args) {
     int arr[] = {1, 2, 3, 4, 5, 6, 7, 3, 2, 5, 7, 6 };
       Tree Set<Integer> un = new Tree Set<Integer> ();
       for (int i = 0; i < arr. length; i++) {
              un.add(arr[i]);
       }
       System.out.println(un);
    }
```

28. WAJP print the missing number from an array?

```
    public static void main (String [] args) {
    int arr [] = {1, 2, 3, 5, 6, 7, 8, 9};
        int sum1 = 0;
        for (int i = 0; i < arr. length; i++) {
              sum1 = sum1 + arr[i];
        }
        System.out.println("sum of array is: " + sum1);

        int sum2 = 0;
        for (int i = 0; i <= 9; i++) {
              sum2 = sum2 + i;
        }
        System.out.println("range of array is: " + sum2);

        int sum = 0;
        sum = sum2 - sum1;
        System.out.println("missing number of arrays: " + sum);
    }
```

29. WAJP find maximum and minimum numbers and its index?

```
    public static void main (String [] args) {
        int arr [] = {1, 2, 3, 4, 5, 6, 7, 8};
        int max = arr[0];
        int maxindex = 0;
        for (int i = 0; i < arr.length; i++) {
              if (arr[i] > max) {
                    max = arr[i];
                    maxindex = i;
              }
        }
        System.out.println("max number from an array: " + max);
        System.out.println("max number index from an array: " + maxindex);

        int min = arr [0];
        int minindex = 0;
        for (int i = 0; i < arr.length; i++) {
              if (arr[i] < min) {
                    min = arr[i];
                    minindex = i;
              }
        }
        System.out.println("min number from an array: " + min);
        System.out.println("min number index from an array: " + minindex);
```

```
    }
```

30. **WAJP find the duplicate elements from an array?**

```
    public static void main(String[]args) {
          int arr[] = {1, 2, 3, 4, 5, 3};
          boolean b = false;
          for (int i = 0; i < arr.length; i++) {
                for (int j = 1 + i; j < arr.length; j++) {
                      if (arr[i] == arr[j]) {
                            System.out.println("duplicate element found:" + arr[i]);
                            b = true;
                      }
                }
          }
          if (b == false) {
                System.out.println("duplicate is not found.");
          }
    }
```

31. WAJP remove duplicate elements from an array?

```
    public static void main (String [] args) {
      int[] arr = {1, 2, 3, 4, 5, 6, 1, 2, 3, 4, 5, 6};
          Set<Integer> s = new LinkedHashSet<Integer>();
          for (int i = 0; i < arr.length; i++) {
                s.add(arr[i]);
          }
          for (Integer arrr: s) {
                System.out.println(arrr);
          }
          System.out.println(s);
    }
```

32. **WAJP to search the given element from an array?**

```
    public static void main (String [] args) {
          int arr [] = {1, 2, 3, 4, 5, 6, 7};
          System.out.println("enter your element: ");
          Scanner s = new Scanner(System.in);
          int ser_ele = s.nextInt();
          boolean b = false;
          for (int i = 0; i < arr.length; i++) {
                if (ser_ele == arr[i]) {
                      System.out.println("search element is found: " + i);
                      b = true;
                }
          }
          if (b == false) {
                System.out.println("search element is not found.");
          }
    }
```

33. **WAJP bobble shooting?**

```
    public static void main (String [] args) {
      int a[] = {90, 40, 50, 60, 30, 20, 10, 70, 80};
          System.out.println("array before shorting:" + Arrays.toString(a));
                for (int i = 0; i < a.length - 1; i++) {
                      for (int j = i+1; j < a.length - 1; j++) {
                            if (a[i] > a[j]) {
                                  int temp = a[i];
                                  a[i] = a[j];
                                  a[j] = temp;
                            }
                      }
                }
                System.out.println("array after shorting: " + Arrays.toString(a));
          }
```

34. **WAJP to count the single letter from given string?**

```
    public static void main (String [] args) {
          String s = "tejesh";
```

```
        int count=0;
        for(char ch :s.toCharArray()) {
                if(ch=='t') {
                        count++;
                }
        }
        System.out.println("total count occurrence: "+count);
    }
```

35. WAJP to count the upper- and lower-case alphabet?

```
    public static void main (String [] args) {
        System.out.println("enter your name: ");
        Scanner s = new Scanner(System.in);
        String name = s.nextLine();
        name = name.replace(" ", "");
        int upper = 0;
        int lower = 0;
        for (int i = 0; i < name.length(); i++) {
            char ch = name.charAt(i);
            if (ch >= 'A' && ch <= 'Z') {
                upper++;
            } else {
                lower++;
            }
        }
        System.out.println("upper letters: " + upper);
        System.out.println("lower letters: " + lower);
    }
```

36. WAJP to print name occurrence of given string?

```
     public static void main (String [] args) {
        System.out.println("enter your name: ");
       Scanner sc = new Scanner(System.in);
        String s = sc.nextLine();
        s = s.replaceAll(" ", "");
        HashMap<Character, Integer> hs = new HashMap<Character, Integer>();
        for (Character c: s.toCharArray()) {
            if (hs.containsKey(c)) {
                hs.put(c, hs.get(c) + 1);
            } else {
                hs.put(c, 1);
            }
        }
        System.out.println(hs);
    }
```

37. WAJP to check the number is Amstrong or not?

```
    public static void main (String [] args) {
        System.out.println("enter your number: ");
        Scanner s = new Scanner (System.in);
        int num = s.nextInt ();
        int org_num = num;
        int sum = 0;
        while (num > 1) {
            int i = 0;
            i = num % 10;
            sum = sum + i * i * i;
            num = num / 10;
        }
        if (org_num == sum) {
            System.out.println("number is amstrong.");
        } else {
            System.out.println("number is not amstrong.");
        }
    }
```

38. WAJP to check the name is anagram or not?

```
    public static void main (String [] args) {
```

```
        System.out.println("enter your names: ");
        Scanner s = new Scanner(System.in);
        String a = s.nextLine();
        String b = s.nextLine();
        char x[] = a.toCharArray();
        char y[] = b.toCharArray();
        Arrays.sort(x);
        Arrays.sort(y);
        boolean result = Arrays.equals(x, y);
        if (result == true) {
            System.out.println("name is anagram.");
        } else {
            System.out.println("name is not anagram.");
        }
    }
```

39. WAJP to convert the lower case to upper case?

```
    public static void main (String [] args) {
    System.out.println("enter your lower alphabet: ");
        Scanner s = new Scanner(System.in);
        String name = s.nextLine();
        char x[] = name.toCharArray();
        int size = name.length();
        int i = 0;
        while (i != size) {
            x[i] = (char) (x[i] - 32);
            i++;
        }
        System.out.println(name);
        System.out.println(x);
    }
```

40. WAJP to convert the upper case to lower case?

```
    public static void main (String [] args) {
    System.out.println("enter your lower alphabet: ");
        Scanner s = new Scanner(System.in);
        String name = s.nextLine();
        char x[] = name.toCharArray();
        int size = name.length();
        int i = 0;
        while (i!= size) {
            x[i] = (char) (x[i] - 32);
            i++;
        }
        System.out.println(name);
        System.out.println(x);
    }
```

41. WAJP to convert the first letter into capital from given string?

```
    public static void main (String [] args) {
     System.out.println("enter your name: ");
        Scanner s = new Scanner(System.in);
        String name = s.nextLine();
        String space = "";
        String arr[] = name.split(" ");
        for (String ss : arr) {
            char firstletter = ss.charAt(0);
            char convert = Character.toUpperCase(firstletter);
            String sub = ss.substring(1);
            space = space + convert + sub + " ";
        }
        System.out.println(space);
    }
```

42. WAJP to count the small and capital and digits and special character form given string?

```
     public static void main (String [] args) {
      System.out.println("enter your name: ");
        Scanner s = new Scanner(System.in);
        String name = s.nextLine();
```

```
		int sl = 0; int cp = 0; int nu = 0; int sp = 0;
		String small = ""; String capital =""; String digits = ""; String specialchar ="";
		for (int i = 0; i < name.length(); i++) {
			char ch = name.charAt(i);
			if (Character.isLowerCase(ch)) {
				sl++;
				small = small + ch;
			} else if (Character.isUpperCase(ch)) {
				cp++;
				capital = capital + ch;
			} else if (Character.isDigit(ch)) {
				digits = digits + ch;
			} else {
				sp++;
				specialchar = specialchar + ch;
			}
		}
		System.out.println(name);
		System.out.println("small count -> " + sl + " small letters -> " + small);
		System.out.println("captial count -> " + cp + " captial letters -> " + captial);
		System.out.println("digits count -> " + nu + " digits letters -> " + digits);
		System.out.println("special character count -> " + sp + " special character
letters -> " + specialchar);
	}
```

43. WAJP to count the vowels form given string?

```
	public static void main (String [] args) {
	 System.out.println("enter your name: ");
		Scanner s = new Scanner(System.in);
		String name = s.nextLine();
		char ch[] = name.toCharArray();
		int count = 0;
		for (int i = 0; i < name.length(); i++) {
			char c = ch[i];
			if (c == 'a' || c == 'e' || c == 'i' || c == 'o' || c == 'u') {
				count++;
			}
		}
		System.out.println("total vowel count: " + count);
	}
```

44. WAJP to count the consonants from given string?

```
	public static void main (String [] args) {
	System.out.println("enter your name: ");
		Scanner s = new Scanner(System.in);
		String name = s.nextLine();
		char ch[] = name.toCharArray();
		int count = 0;
		for (int i = 0; i < name.length(); i++) {
			char c = ch[i];
			if (c >= 'a' && c <= 'z') {
				if (!(c == 'a' || c == 'e' || c == 'i' || c == 'o' || c == 'u')) {
					count++;
				}
			}
		}
		System.out.println("total count of consonants: " + count);
	}
```

45. WAJP to print the vowels occurrence of given string?

```
	 public static void main (String [] args) {
	  System.out.println("enter your name: ");
		Scanner s = new Scanner (System.in);
		String name = s.nextLine();
		name = name.replace(" ", "");
		char ch[] = name.toCharArray();
		Map<Character, Integer> mp = new TreeMap<Character, Integer>();
		for (int i = 0; i < name.length(); i++) {
```

```
                char c = ch[i];
                if (c == 'a' || c == 'e' || c == 'i' || c == 'o' || c == 'u') {
                        if (mp.containsKey(c)) {
                                Integer inte = mp.get(ch[i]);
                                mp.put(c, inte + 1);
                        } else {
                                mp.put(c, 1);
                        }
                }
        }
        System.out.println(mp);
    }
```

46. WAJP print the consonants occurrence of the given string?

```
    public static void main (String [] args) {
   System.out.println("enter your name: ");
          Scanner s = new Scanner(System.in);
          String name=s.nextLine();
          char ch[]=name.toCharArray();
          Map<Character, Integer> mp = new TreeMap<Character, Integer>();
          for(int i=0; i<name.length(); i++) {
               char c=ch[i];
               if(c>='a'&&c<='z') {
                 if(!(c=='a'||c=='e'||c=='i'||c=='o'||c=='u')) {
                        if(mp.containsKey(c)) {
                                Integer intt=mp.get(ch[i]);
                                mp.put(c, intt+1);
                        }
                        else {
                                mp.put(c, 1);
                        }
                }
              }
        }
        System.out.println(mp);
    }
```

47. WAJP print the second highest number of given array?

```
    public static void main (String [] args) {
      int arr[] = {10, 20, 30, 40, 50, 10, 20, 30, 40, 50};
          int a = arr.length;
          int higest = Integer.MIN_VALUE;
          int sechigest = Integer.MIN_VALUE;
          for (int i = 0; i < a; i++) {
                if (arr[i] > higest) {
                        sechighest = higest;
                        higest = arr[i];
                }
                if (arr[i] < higest && arr[i] > sechighest) {
                        sechighest = arr[i];
                }
          }
          System.out.println("second highest number form an Array: " + sechighest);
    }
```

48. WAJP print the second lowest number of given array?

```
    public static void main (String [] args) {
      int arr [] = {1, 2, 3, 4, 5, 6, 1, 2, 3, 4, 5, 6};
          int a = arr.length;
          int lowest = Integer.MAX_VALUE;
          int secondlowest = Integer.MAX_VALUE;
          for (int i = 0; i < a; i++) {
                if (arr[i] < lowest) {
                        secondlowest = lowest;
                        lowest = arr[i];
                }
                if (arr[i] > lowest && arr[i] < secondlowest) {
                        secondlowest = arr[i];
```

```
                }
            }
            System.out.println("second lowest value form an Array: " + secondlowest);
    }
```

49. WAJP to verify the given string is integer or not?

```
    public static void main (String [] args) {
      System.out.println("enter your value: ");
            Scanner s = new Scanner(System.in);
            String x = s.nextLine();
            char c[] = x.toCharArray();
            int size = c.length;
            int i = 0;
            while (i != size) {
                  if (c[i] >= '0' && c[i] <= '9') {
                        i++;
                  } else {
                        System.out.println("string is not integer.");
                        System.exit(0);
                  }
            }
            System.out.println("string is integer.");
    }
```

50. WAJP print the right-triangle star pattern?

```
    public static void main (String [] args) {
            System.out.println("enter your value: ");
            Scanner s = new Scanner(System.in);
            int num = s.nextInt();
            for (int i = 1; i <= num; i++) {
                  for (int j = 1; j <= i; j++) {
                        System.out.print("* ");
                  }
                  System.out.println();
            }
    }
```

51. WAJP print the reverse right-triangle star pattern?

```
    public static void main (String [] args) {
            System.out.println("enter your value: ");
            Scanner s = new Scanner(System.in);
            int num = s.nextInt();
            for (int i = 1; i <= num; i++) {
                  for (int j = i; j <= num; j++) {
                        System.out.print("* ");
                  }
                  System.out.println();
            }
    }
```

52. WJAP print the left-triangle star pattern?

```
    public static void main (String [] args) {
        System.out.println("enter your value: ");
            Scanner s = new Scanner(System.in);
            int num = s.nextInt();
            for (int i = 1; i <= num; i++) {
                  for (int j = i; j <= num; j++) {
                        System.out.print(" ");
                  }
                  for (int j = 1; j <= i; j++) {
                        System.out.print("*");
                  }
                  System.out.println();
            }
    }
```

53. WAJP print the reverse left-triangle star pattern?

```
    public static void main (String [] args) {
        System.out.println("enter your value: ");
            Scanner s = new Scanner(System.in);
```

```
        int num = s.nextInt();
        for (int i = 1; i <= num; i++) {
              for (int j = 1; j <= i; j++) {
                    System.out.print(" ");
              }
              for (int j = i; j <= num; j++) {
                    System.out.print("*");
              }
              System.out.println();
        }
  }
```

54. WAJP print the pyramid star pattern?

```
  public static void main (String [] args) {
     System.out.println("enter your input: ");
        Scanner s = new Scanner(System.in);
        int num = s.nextInt();
        for (int i = 1; i <= num; i++) {
              for (int j = i; j <= num; j++) {
                    System.out.print(" ");
              }
              for (int j = 1; j <= i; j++) {
                    System.out.print("* ");
              }
              System.out.println();
        }
  }
```

55. WAJP print the reverse pyramid star pattern?

```
  public static void main (String [] args) {
      System.out.println("enter your input: ");
        Scanner s = new Scanner(System.in);
        int num = s.nextInt();
        for (int i = 1; i <= num; i++) {
              for (int j = 1; j <= i; j++) {
                    System.out.println(" ");
              }
              for (int j = i; j <= num; j++) {
                    System.out.print("* ");
              }
              System.out.println();
        }
  }
```

56. WAJP print the square star pattern?

```
  public static void main (String [] args) {
     System.out.println("enter your number: ");
        Scanner s = new Scanner(System.in);
        int num = s.nextInt();
        for (int i = 1; i <= num; i++) {
              for (int j = 1; j <= num; j++) {
                    System.out.print("* ");
              }
              System.out.println();
        }
  }
```

57. WAJP print the square hole star pattern?

```
  public static void main (String [] args) {
     System.out.println("enter your number: ");
        Scanner s = new Scanner(System.in);
        int num = s.nextInt();
        for (int i = 0; i < num; i++) {
              for (int j = 0; j < num; j++) {
                    if (i == 0 || j == 0 || i == num - 1 || j == num - 1) {
                          System.out.print("*");
                    } else {
                          System.out.print(" ");
                    }
```

```
                }
                System.out.println();
            }
    }
```

58. WAJP print the sandglass star pattern?

```
    public static void main (String [] args) {
       System.out.println("enter your input: ");
            Scanner s = new Scanner(System.in);
            int num = s.nextInt();
            for (int i = 1; i < num; i++) {
                  for (int j = 1; j <= i; j++) {
                        System.out.print(" ");
                  }
                  for (int j = i; j <= num; j++) {
                        System.out.print("* ");
                  }
                  System.out.println();
            }
            for (int i = 1; i <= num; i++) {
                  for (int j = i; j <= num; j++) {
                        System.out.print(" ");
                  }
                  for (int j = 1; j <= i; j++) {
                        System.out.print("* ");
                  }
                  System.out.println();
            }
    }
```

59. WAJP print the diamond star pattern?

```
    public static void main (String [] args) {
        System.out.println("enter your number: ");
            Scanner s = new Scanner(System.in);
            int num = s.nextInt();
            for (int i = 1; i < num; i++) {
                  for (int j = i; j <= num; j++) {
                        System.out.print(" ");
                  }
                  for (int j = 1; j <= i; j++) {
                        System.out.print("* ");
                  }
                  System.out.println();
            }
            for (int i = 1; i <= num; i++) {
                  for (int j = 1; j <= i; j++) {
                        System.out.print(" ");
                  }
                  for (int j = i; j <= num; j++) {
                        System.out.print("* ");
                  }
                  System.out.println();
            }
    }
```

60. WAJP print only outside line of diamond star pattern?

```
    public static void main (String [] args) {
        System.out.println("enter your number: ");
            Scanner s = new Scanner(System.in);
            int num = s.nextInt();
            for (int i = 1; i < num; i++) {
                  for (int j = i; j <= num; j++) {
                        System.out.print("*");
                  }
                  for (int j = 1; j < i; j++) {
                        System.out.print(" ");
                  }
                  for (int j = 1; j < i; j++) {
```

```
                System.out.print(" ");
            }
            for (int j = i; j <= num; j++) {
                System.out.print("*");
            }
            System.out.println();
        }
        for (int i = 1; i <= num; i++) {
            for (int j = 1; j <= i; j++) {
                System.out.print("*");
            }
            for (int j = i; j < num; j++) {
                System.out.print(" ");
            }
            for (int j = i; j < num; j++) {
                System.out.print(" ");
            }
            for (int j = 1; j <= i; j++) {
                System.out.print("*");
            }
            System.out.println();
        }
    }
```

61. WAJP print the number Floyds Tringale pattern?

```
    public static void main (String [] args) {
      System.out.println("enter your number: ");
        Scanner s = new Scanner(System.in);
        int num = s.nextInt();
        int number = 1;
        for (int i = 1; i <= num; i++) {
            for (int j = 1; j <= i; j++) {
                System.out.print(number + " ");
                number++;
            }
            System.out.println();
        }
    }
```

62. WAJP print the right-side pascal triangle (or) k pattern star pattern?

```
    public static void main (String [] args) {
       System.out.println("enter your number:");
        Scanner s = new Scanner(System.in);
        int num = s.nextInt();
        for (int i = 1; i < num; i++) {
            for (int j = 1; j <= i; j++) {
                System.out.print("* ");
            }
            System.out.println();
        }
        for (int i = 1; i <= num; i++) {
            for (int j = i; j <= num; j++) {
                System.out.print("* ");
            }
            System.out.println();
        }
    }
```

63. WAJP print the left-side pascal triangle star pattern?

```
    public static void main (String [] args) {
      System.out.println("enter your number: ");
        Scanner s = new Scanner(System.in);
        int num = s.nextInt();
        for (int i = 1; i < num; i++) {
            for (int j = i; j <= num; j++) {
                System.out.print(" ");
            }
            for (int j = 1; j <= i; j++) {
```

Input: 4

Output:

```
   *
  **
 ***
****
 ***
  **
   *
```

```
                System.out.print("*");
            }
            System.out.println();
        }
        for (int i = 1; i <= num; i++) {
            for (int j = 1; j <= i; j++) {
                System.out.print(" ");
            }
            for (int j = i; j <= num; j++) {
                System.out.print("*");
            }
            System.out.println();
        }
    }
```

64. WAJP print the butterfly star pattern?

```
    public static void main (String [] args) {
      System.out.println("enter your number: ");
        Scanner s = new Scanner(System.in);
        int num = s.nextInt();
        for (int i = 1; i < num; i++) {
            for (int j = 1; j <= i; j++) {
                System.out.print("*");
            }
            for (int j = i; j < num; j++) {
                System.out.print(" ");
            }
            for (int j = i; j < num; j++) {
                System.out.print(" ");
            }
            for (int j = 1; j <= i; j++) {
                System.out.print("*");
            }
            System.out.println();
        }
        for (int i = 1; i <= num; i++) {
            for (int j = i; j <= num; j++) {
                System.out.print("*");
            }
            for (int j = 1; j < i; j++) {
                System.out.print(" ");
            }
            for (int j = 1; j < i; j++) {
                System.out.print(" ");
            }
            for (int j = i; j <= num; j++) {
                System.out.print("*");
            }
            System.out.println();
        }
    }
```

Input: 4

Output:

```
*       *
**     **
***   ***
********
***   ***
**     **
*       *
```

65. WAJP check the given number is leaf year or not?

```
    public static void main (String [] args) {
      System.out.println("enter your year: ");
        Scanner s = new Scanner(System.in);
        int year = s.nextInt();
        if (year % 400 == 0) {
            System.out.println("this is a leaf year...");
        } else if (year % 4 == 0 && year % 100 == 0) {
            System.out.println("this is a leaf year...");
        } else {
            System.out.println("this is not a leaf year...");
        }
    }
```

Input: 2021

Output: this is not a leaf year...