*Data Structures and Algorithm in JAVA*

**Day :1**

ArrayList in java

Array list is similar to Arrays in java.

They are flexible and supports redundancy

import java.util.\*;

public class hey

{

public static void main (String [] args)

{

ArrayList<Integer> mylist = new ArrayList<>();

mylist.add(50);

mylist.add(60);

mylist.add(40);

mylist.add(30);

mylist.add(20);

mylist.add(10);

for(int num:mylist)

{

System.out.print(num+" ");

}

System.out.println("");

Collections.sort(mylist);

for(int i:mylist)

{

System.out.print(i+" ");

}

}

}

o/p

50 60 40 30 20 10

10 20 30 40 50 60

Patterns in Java

import java.util.\*;

public class hi

{

public static void main (String [] args)

{

Scanner sc = new Scanner (System.in);

int n = sc.nextInt();

print2(n);

}

public static void print (int n)

{

for(int i=0;i<n;i++)

{

for(int j=0;j<i;j++)

{

System.out.print(" ");

}

for(int j=0;j<n\*2-1-2\*i;j++)

{

System.out.print("\*");

}

System.out.println();

}

}

public static void print1 (int n)

{

for(int i=0;i<=2\*n-1;i++)

{

int stars = i;

for(int j=0;j<stars;j++)

{

if(i>n)

{

stars = 2\*n-i;

}

System.out.print("\*");

}

System.out.println();

}

}

public static void print2 (int n)

{

for(int i=0;i<2\*n-1;i++)

{

for(int j=0;j<2\*n-1;j++)

{

int top = i;

int left = j;

int right = (2\*n-2) -j;

int down = (2\*n-2) -i;

System.out.print(n-Math.min(Math.min(top,down),Math.min(left,right)));

}

System.out.println();

}

}

}

o/p

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