WEEK 2
PRACTICE PROGRAMS

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3) Write a C/Java program to accept a no of n from user and print n rows of output as given if n=4

```
1
2 3
4 5 6
7 8 9 10
```

ans

```
class Rows {
    public static void main (String args[]) {
        int s[][] = new int[4][];
        s[0] = new int[1];
        s[1] = new int[2];
        s[2] = new int[3];
        s[3] = new int[4];

        int i, j, k=1;
        for(i=0; i<4; i++)
            for(j=0; j<i+1; j++) {
                s[i][j] = k;
                k++;
            }
        for (i=0; i<4; i++) {
            for (j=0; j<i+1; j++)
                System.out.print(s[i][j] + " ");
                System.out.println();
            }
    }
}
```

4) Write a C/Java program to accept CIE (out of 50) and SEE (out of 100) of a student and print his/her grade. use if else

ans

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

int m = 30 ;
int m1 = 80 ;
int total = m + m1 / 2;

if (total >= 90 ) {
    System.out.print(" S grade ") ; }
    else if (total >=80 && total <90) {
        System.out.print (" A grade") ; }

    else if (total >=70 && total <80) {
        System.out.print ("B grade"); }

    else if (total >= 60 && total <70){
        System.out.print ("C grade"); }

    else if (total >= 50 && total < 60) {
        System.out.print (" D grade" ); }

    else if (total >=40 && total <50) {
        System.out.print ("E grade"); }

    else if( total <40) {
        System.out.print ("F grade"); }
}
}
```

5) Write JAVA program to print prime numbers between two integers (inclusive). Accept these two integers from user

```
class Prime {
  public static void main (String args[]) {
    int flag=0;
    int a;
    int b=20;
    for (a=2 ; a<=b; a++)
    {
      for (int k=2; k<=a/2 ; k++)
      {
        if (a%k==0)
        {
          flag=1;
          break;
        }
        if (flag==0) {
          System.out.println(" ");
        }
      }
    }
}
```

6)
```
class areavol {
    public static void main(String args[])
    {
        double r=15 , h=25;
        System.out.println("Radius:"+r ,"Height:"+h);

        double cya = 2*3.14*r*h + 2*3.14*r*r;
        double cyV = 3.14*r*r*h;

        double ca = 3.14*r*r+3.14*r*Math.sqrt
                                    (4*h+r*r));

        double cv = 3.14*r*r*h/3;

        double sa = 4*3.14*r*r;
        double sv = 4/3*3.14*r*r*r;

        System.out.println("Area of Cylinder:" + cya);
        System.out.println("Volume of Cylinder:" +cyV);
        System.out.println("Area of Cone:" + ca);
        System.out.println("Volume of Cone:" + cv);
        System.out.println("Area of sphere:" + sa);
        System.out.println("Volume of sphere:" + sv);
    }
}
```