----------Day 01 Ass . with Solution ----------

Name of Candidate : Chetan B Badgujar

Date :18 /05 / 2021

Roll number : 1022_Chetan Badgujar

1:write program to test Hello World.

➔

```
public class HelloWord
{
public static void main(String[] args)
        {
                System.out.println("HelloWorld!!!!!!!!!");
        }
}
```

OUTPUT :

OUTPPUT :

HelloWorld!!!!!!!!!

2:Write a program to adddition of two numbers also addition of two characters.

➔

```
import java.util.Scanner;
public class AdiitionofCharacter
{
	public static void main(String[] args)
	{
		Scanner sc=new Scanner(System.in);
		int num1,num2;
		int addi;
		System.out.println("Addition of given two numbers :");
		System.out.println("-----------------------------------");
		num1=sc.nextInt();
		num2=sc.nextInt();
		addi=num1+num2;
		System.out.println("Addition of two nmber :"+addi);
		 char ch1,ch2;
		 System.out.println("Addition of two character are :");
		 System.out.println("Addition of two characters:"+'c'+'h');
	}
}
```

OUTPUT:

Addition of given two numbers

158

200

Addition of two nmber :358

Addition of two character are :

Addition of two characters:ch

3:Find the compound amount and compound interest on the principal Rs.20,000 borrowed at 6% compounded annually for 3 years.

OUTPUT:

4:Write a program to calculate power of a number.

➔

```
import java.util.Scanner;

public class PowerofNumber

{


	public static void main(String[] args)

	{

		Scanner sc=new Scanner(System.in);

		System.out.println("Enter the numbe to calculating the power of the number :");

		int num1=0,power=0,n;

		num1=sc.nextInt();

		System.out.println("Enter the power of the number:");

		n=sc.nextInt();

		System.out.println("Given number:"+num1+" power of that number" +num1);


		System.out.println("Calculating power of number :");

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

		{

			power=num1*n;

		}


		System.out.println("Power of given number is :"+power);

	}

}
```

OUTPUT:

Enter the numbe to calculating the power of the number :

50

Enter the power of the number:

25

Given number:50 power of that number50

Calculating power of number :

Power of given number is :1250

--

5:Write a program to swap two numbers.

➔

```
import java.util.Scanner;


public class SwapingofNumber
{

	public static void main(String[] args)
	{
		Scanner sc=new Scanner(System.in);
		System.out.println("Enter the two number :");
		int num1,num2,swap,temp=0;
		num1=sc.nextInt();
		num2=sc.nextInt();
		System.out.println("Given numbers :"+num1+"		" +num2);


		num1=num1+num2;
		num2=num1-num2;
		num1=num1-num2;
		System.out.println("After swaping of this numbers :"+num1+"  "+num2);
	}


}
```

OUTPUT:

```
Enter the two number :
100
500
Given numbers :100		500
After swaping of this numbers :500  100
```

6:Write a program to find factorial of a given number.

➔

```
import java.util.Scanner;
public class Fctorialofgivenumber
{
	public static void main(String[] args)
	{
		Scanner sc=new Scanner(System.in);
		System.out.println("---Pragramme for factorial number :");
		int fackt=1,temp=0;
		int num1=sc.nextInt();
		System.out.println("Enter the given nuber for calculating factorial number :");
		for(int i=1;i<=num1;i++)
		{
		fackt=fackt*i;
		}
		System.out.println("Printing the enter number :"+fackt);
	}

}
```

_----------

OUTPUT:

```
Pragramme for factorial number :
6
Enter the given nuber for calculating factorial number :
Printing the enter number :720
```

7:Write a program to find m to the power n

➔

```
#include <stdio.h>
int main()
{
   int base, exp;
   long long result = 1;
   printf("Enter a base number: ");
   scanf("%d", &base);
   printf("Enter an exponent: ");
   scanf("%d", &exp);

   while (exp != 0)
{
      result=result*base;
      --exp;
   }
   printf("Answer = %lld", result);
   return 0;
```

OUTPUT:

```
PS C:\Users\Admin\Desktop\PROGRAMING CODE\iascd_asingment> .\a.exe
Enter a base number: 18
Enter an exponent: 6
Answer = 34012224
PS C:\Users\Admin\Desktop\PROGRAMING CODE\iascd_asingment>
```

_____

8:Check if number is a prime number or not.

➔

```
import java.util.Scanner;
public class Primenumber
{
        public static void main(String[] args)
        {
          Scanner sc=new Scanner(System.in);
          int number;
          number=sc.nextInt();
          int i = 2;
          boolean flag = false;
          while (i <= number / 2)
          {
           if (number% i == 0)
           {
                   flag = true;
                    break;
                   }
                    ++i;
         }
          if (!flag)
               System.out.println(number);
           else
               System.out.println(number)
        }
}
```

9:Sum of series :

1+2+3+….+n

➔

```
#include<stdio.h>
  int main(void)
  {
     int a;
     int total,sum=0,n;
     printf("Enter the number :");
     scanf("%d",&a);
     for(int i=1;i<=a;i++)
     {
       sum=sum+i;
     }
     printf("Addition of given number :%d",sum);
     return 0;

  }
```

OUTPUT:

```
PS C:\Users\Admin\Desktop\PROGRAMING CODE\iascd_asingment> g++ k.cpp
PS C:\Users\Admin\Desktop\PROGRAMING CODE\iascd_asingment> .\a.exe
Enter the number :3
Addition of given number :6
PS C:\Users\Admin\Desktop\PROGRAMING CODE\iascd_asingment> .\a.exe
Enter the number :10
Addition of given number :55
PS C:\Users\Admin\Desktop\PROGRAMING CODE\iascd_asingment>
```

10:Check whether the number is palindrome or not?

➔

```
#include <stdio.h>
int main() {
   int n, reversedN = 0, remainder, originalN;
   printf("Enter an integer: ");
   scanf("%d", &n);
   originalN = n;

   // reversed integer is stored in reversedN
   while (n != 0) {
      remainder = n % 10;
      reversedN = reversedN * 10 + remainder;
      n /= 10;
   }

   // palindrome if orignalN and reversedN are equal
   if (originalN == reversedN)
      printf("%d is a palindrome.", originalN);
   else
      printf("%d is not a palindrome.", originalN);
   return 0;
}
```

OUTPUT:

```
PS C:\Users\Admin\Desktop\PROGRAMING CODE\iascd_asingment> g++ k.cpp
PS C:\Users\Admin\Desktop\PROGRAMING CODE\iascd_asingment> .\a.exe
Enter an integer: 10
10 is not a palindrome.
PS C:\Users\Admin\Desktop\PROGRAMING CODE\iascd_asingment> .\a.exe
Enter an integer: 11
11 is a palindrome.
```

11:Write a program to find sum of all even and odd numbers between 1 to n.

➔

```
#include<stdio.h>
int main()
{
 int i, Minimum, Maximum, Even_Sum = 0, Odd_Sum = 0;

 printf("\n Please Enter the Minimum, and Maximum Limit Values : \n");
 scanf("%d %d", &Minimum, &Maximum);

 for(i = Minimum; i <= Maximum; i++)
 {
  if ( i%2 == 0 )
  {
    Even_Sum = Even_Sum + i;
  }
  else
  {
        Odd_Sum = Odd_Sum + i;
  }
 }
 printf("\n The Sum of Even Numbers betwen %d and %d  = %d", Minimum, Maximum, Even_Sum);
 printf("\n The Sum of Odd Numbers betwen %d and %d  = %d", Minimum, Maximum, Odd_Sum);

 return 0;
}
```

OUTPUT ➔

```
PS C:\Users\Admin\Desktop\PROGRAMING CODE\iascd_asingment> .\a.exe

 Please Enter the Minimum, and Maximum Limit Values :
10
20

 The Sum of Even Numbers betwen 10 and 20  = 90
 The Sum of Odd Numbers betwen 10 and 20  = 75
PS C:\Users\Admin\Desktop\PROGRAMING CODE\iascd_asingment>
```

12: Write a program to enter a number and print its reverse.

➔

```
#include<stdio.h>
int main(void)
{

        int n;
        printf("Enter the one number for printing the natural number(from 1 to n) \n");
        scanf("%d",&n);
        while(1<=n)
        {
                printf("%d\n",n);
                n--;
        }
        return 0;
}
```

OUTPUT:

```
PS C:\Users\Admin\Desktop\PROGRAMING CODE\iascd_asingment> .\a.exe
Enter the one number for printing the natural number(from 1 to n)
15
15
14
13
12
11
10
9
8
7
6
```

5

4

3

2

1

PS C:\Users\Admin\Desktop\PROGRAMING CODE\iascd_asingment>

13:Write a program to print all Prime numbers between 1 to n.

➔

```
#include<stdio.h>

int main()
{


  int arr[10], i, s, j, p;

  printf("Enter size of an array:");
  scanf("%d", &s);

  printf("Enter array elements:");
  for (i = 0; i < s; i++) {
     scanf("%d", &arr[i]);
  }

  printf("All prime list is:");
  for (i = 0; i < s; i++) {
     j = 2;
     p = 1;
     while (j < arr[i]) {
        if (arr[i] % j == 0) {
           p = 0;
           break;
        }
        j++;
     }
     if (p == 1) {
        printf("%d ", arr[i]);
```

```
    }
  }

  return 0;
}
```

OUTPUT:

```
PS C:\Users\Admin\Desktop\PROGRAMING CODE\iascd_asingment> g++ k.cpp
PS C:\Users\Admin\Desktop\PROGRAMING CODE\iascd_asingment> .\a.exe
Enter size of an array:5
Enter array elements:1
2
3
4
5
All prime list is:1 2 3 5
PS C:\Users\Admin\Desktop\PROGRAMING CODE\iascd_asingment>
```

14:Write a program to check entered number is Armstrong number or not.

➔

```
#include<stdio.h>
void accept_num();
void disp_num();
void armstron_num();

int main(void)
{

	accept_num();
	disp_num();
	armstron_num();

	return 0;
}

void accept_num()
{
	int x;
	printf("Enter the one number for Armstrong == \n");
	printf("For example, 153 is an armstrong number as − 153 = (1)3 + (5)3 + (3)3 153 = 1 + 125 +
27 153 = 153 \n");
	scanf("%d",&x);
}

void disp_num()
{
	int x;
	printf("display the given number from userr ==%d \n",x);
}
```

```
void armstron_num()
{

        int x,sun,asa,add,som,sum,A,B,C,arma;
        som=x%10;  //123%10=3
        sum=x/10;      //12;
        sun=sum%10;  //2
        asa=sum/10;  //==1
        A=asa*asa*asa;
        B=som*som*som;
        C=sun*sun*sun;
        arma=A+B+C;
        if(arma==x)
        printf("given number is Armstrang number ==%d",arma);
        else
   printf("given number is NOT Armstrang number ==%d",arma);
}
```

OUTPUT:

```
PS C:\Users\Admin\Desktop\PROGRAMING CODE\iascd_asingment> g++ k.cpp
PS C:\Users\Admin\Desktop\PROGRAMING CODE\iascd_asingment> .\a.exe
Enter the one number for Armstrong ==
For example, 153 is an armstrong number as ΓêÆ 153 = (1)3 + (5)3 + (3)3 153 = 1 + 125 + 27 153 = 153
123
display the given number from userr ==123
given number is NOT Armstrang number ==36
```

15:Write a program to find greatest of three numbers using nested if-else.

➔

```
#include <stdio.h>
int main() {
   int n1, n2, n3;
   printf("Enter three numbers: ");
   scanf("%d %d %d", &n1, &n2, &n3);
   if (n1 >= n2) {
      if (n1 >= n3)
         printf("%d is the largest number.", n1);
      else
         printf("%d is the largest number.", n3);
   } else {
      if (n2 >= n3)
         printf("%d is the largest number.", n2);
      else
         printf("%d is the largest number.", n3);
   }

   return 0;
}
```

_----------

OUTPUT:

```
PS C:\Users\Admin\Desktop\PROGRAMING CODE\iascd_asingment> g++ k.cpp
PS C:\Users\Admin\Desktop\PROGRAMING CODE\iascd_asingment> .\a.exe
Enter three numbers: 12
10
14
14 is the largest number.
PS C:\Users\Admin\Desktop\PROGRAMING CODE\iascd_asingment>
```

----------DAY 1.1 ASSINGNMENT and Solutions----------

----------Day 1 .0+01=1.1 ASS & Answers :----------

Name : CHETAN BHAGAWAN BADGUJAR

ROLL Number : 1022 _ CHETAN BADGUJAR

Date of submitting : 17 / 05 / 2021

1. Finding F from C (temp).
2. Finding area and perimeter of rectangle or circle.

➔

```
#include<stdio.h>
int main(void)
{
    float r,pi=3.142,area,perim;
    printf("enter the value of Redius for determine area and perimeter of rectangle or circle. \n
=");
    scanf("%f",&r);

    area=pi*r*r;

            printf("%4f \n",area);
      perim=2*pi*r;

    //formula = pi*R*R

      printf("%4f \n",perim);

    return 0;
}
```

OUTPUT :

```
S C:\Users\Admin\Desktop\PROGRAMING CODE\Day5assignment> g++ ANS.CPP
PS C:\Users\Admin\Desktop\PROGRAMING CODE\Day5assignment> .\A.EXE

Enter the Radius for :
 Clculating Area of Trangle and Rectrngle or Circle :
 10.25
Area of Rectrangle/Circule : 330.106384
Perimeter of Rectrngle /Circle : 64.410995
```

3. Accept a 3 digit number from user and find the sum of the digits and also reverse the number

➔

```
#include<stdio.h>
 int main(void)
 {
        int a,b,c,sum;
        int xyz,s,t,v,u;
        printf("Print the  three digit number :");
        scanf("%d",&a);
        printf("%d",a);
        sum=a;
        s=sum%10;  //123%10 ===3
        t=a/10;  //123/10==12
        u=t%10;  //12%10 ==2
        v=t/10;// 12/10==1;
        xyz=s+u+v;
        printf("addition of given number==%d",xyz);
        return 0;
 }
```

OUTPUT :

```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.


PS C:\Users\Admin\Desktop\PROGRAMING CODE\Day5assignment> g++ ANS.CPP
PS C:\Users\Admin\Desktop\PROGRAMING CODE\Day5assignment> .\A.EXE
Print the  three digit number :786
786
addition of given number==21
PS C:\Users\Admin\Desktop\PROGRAMING CODE\Day5assignment> .\a.exe
Print the  three digit number :951
951
addition of given number==15
PS C:\Users\Admin\Desktop\PROGRAMING CODE\Day5assignment>
```

4. Check if the given number is even or odd.

➔

```
#include<stdio.h>
 int main(void)
 {
        int arr[]={1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,200};
        int odd,even,varl,i;

   for(i=0;i<20;i++)
        {
            varl=arr[i];
        //  printf(" Runtime array nunber==%d\n",varl);

            if(varl%2==0)
            {
                printf("this is even number ==%d\n",varl);

            }
        else
        {
            printf("this is odd number ==%d\n",varl);
            }
        return 0;
 }
```

OUTPUT :

```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\Admin\Desktop\PROGRAMING CODE\Day5assignment> G++ ANS.CPP
```

```
PS C:\Users\Admin\Desktop\PROGRAMING CODE\Day5assignment> .\A.EXE
this is odd number ==1
this is even number ==2
this is odd number ==3
this is even number ==4
this is odd number ==5
this is even number ==6
this is odd number ==7
this is even number ==8
this is odd number ==9
this is even number ==10
this is odd number ==11
this is even number ==12
this is odd number ==13
this is even number ==14
this is odd number ==15
this is even number ==16
this is odd number ==17
this is even number ==18
this is odd number ==19
this is even number ==200
PS C:\Users\Admin\Desktop\PROGRAMING CODE\Day5assignment>
```

5. Calculating total salary based on basic. If basic <=5000 da, ta and hra will be 10%,20% and 25% respectively otherwise da, ta and hra will be 15%,25% and 30% respectively.
6. Find the price of item when discount is given (specify different discount based on price)

7. Write a program to find greatest of three numbers using nested if-else

➔

```
#include<stdio.h>
int main(void)
{
	int  num1,num2,num3,varl;
	//num1=123;
	//num2=124;
	//num3=234;
	printf("enter the three numner \n");
	scanf("%d%d%d",&num1,&num2,&num3);
	if(num1>num2)
	{
		printf("num1 is gretee ");
	}
	else
	{
		if(num1>num3)
		{
			printf("num1 is greter \n");
		}
	}
	if(num2>num1)
	{
		printf("num2 is greter \n");
	}
	else
	{
		if(num2>num3)
		{
			printf("num2 is greter \n");
```

```
                }
        }
        if(num3>num1)
        {
                printf("num3 is greter \n");
        }
        else
        {
                if(num3>num2)
                printf("num3 is greter \n");
        }
        return 0;
}
```

OUTPUT :

```
PS C:\Users\Admin\Desktop\PROGRAMING CODE\Day5assignment> .\a.exe
enter the three numner
785
800
900
num2 is greter
num3 is greter
PS C:\Users\Admin\Desktop\PROGRAMING CODE\Day5assignment>
```

8. Accept two numbers from user and an operator (+,-,/,*,%) based on that perform the desired operation

➔

```
#include<stdio.h>
void accept_num();
void display_num();
int addition(int a,int b);
int subtrac(int a,int b);
int modu(int a,int b);
int divi(int a,int b);
int main()
{
        int a,b,add,sub,mul,div,mod,varl,x,y,z,w;
        printf("enter the number== \n");
        accept_num();
        display_num();

        x=addition(a,b);
        printf("add=%d \n",x);

        y=subtrac(a,b);
        printf("sub=%d",y);

        z=modu(a,b);
        printf("modu=%f",z);
        w=divi(a,b);
        printf("divi=%f",w);
        return 0;
}
void accept_num()
{
```

```
        int a,b;
   scanf("%d",&a);
   scanf("%d",&b);

}
void display_num()
{
        int a,b;
        printf("two number==%d\n",a);
        printf("seccond number==%d",b);
}
int addition(int a,int b)
{
        int o,p,sum;
        sum=o+p;
        return sum;
}
int subtrac(int a,int b)
{
        int g,k,sub;
        sub=g-k;
        return sub;
}
int multi(int a,int b)
{
        int d,s,mul;
        mul=d*s;
        return mul;
}
int divi(int a,int b)
{
```

```
        int u,v,divi;
        divi=u/v;
        return divi;

}
int modu(int a,int b)
{
        int m,n,mod;
        mod=m%n;
        return mod;
}
```

OUTPUT :

9. Display a menu to the user (like 1.Even Odd 2. Basic salary etc), ask the user to enter his choice, then based on that perform the desired operations.

➔

```
#include<stdio.h>
#include<stdlib.h>

int main(void)
{
   int i,varl,choice;
   float r,pi=3.142,area,perim;

   int arr[]={1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,200};

   do
   {
   printf("\n Enter Choice: 0.Exit 1.EVEN/ODD, 2.AREA OF CIRCULE \n");
   scanf("%d",&choice);

   switch(choice)
   {

      case 1:

        for(i=0;i<20;i++)
              {
                    varl=arr[i];
                                  if(varl%2==0)
                        {
                                printf("this is even number ==%d\n",varl);
```

```
                    }
            else
                {

                    printf("this is odd number ==%d\n",varl);

                    }

        }
        break;

    case 2:
            printf("enter the value of Redius  for determine  area and perimeter of rectangle or
circle. \n =");
            scanf("%f",&r);

        area=pi*r*r;

                printf("%4f \n",area);
            perim=2*pi*r;

        //formula = pi*R*R

            printf("%4f \n",perim);
        break;

  }
  }while(choice!=0);
  return 0;
}
```

OUTPUT :

```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\Admin\Desktop\PROGRAMING CODE\Day5assignment> g++ ANS.CPP
PS C:\Users\Admin\Desktop\PROGRAMING CODE\Day5assignment> .\a.exe

 Enter Choice: 0.Exit 1.EVEN/ODD, 2.AREA OF CIRCULE
1
this is odd number ==1
this is even number ==2
this is odd number ==3
this is even number ==4
this is odd number ==5
this is even number ==6
this is odd number ==7
this is even number ==8
this is odd number ==9
this is even number ==10
this is odd number ==11
this is even number ==12
this is odd number ==13
this is even number ==14
this is odd number ==15
this is even number ==16
this is odd number ==17
this is even number ==18
this is odd number ==19
```

```
this is even number ==200


 Enter Choice: 0.Exit 1.EVEN/ODD, 2.AREA OF CIRCULE
2
enter the value of Redius  for  determine  area and perimeter of rectangle or circle.
 =125
49093.750000
785.500000


 Enter Choice: 0.Exit 1.EVEN/ODD, 2.AREA OF CIRCULE
0
PS C:\Users\Admin\Desktop\PROGRAMING CODE\Day5assignment>
```

10. Accept the price from user. Ask the user if he is a student (user may say yes or no). If he is a student and he has purchased more than 500 than discount is 20% otherwise discount is 10%. But if he is not a student then if he has purchased more than 600 discount is 15% otherwise there is not discount.
11. Accept a number with 1 or 2 digit from user and display it in words.

➔

```
#include<stdio.h>
void accept(int a ,int b);
void disp(int a, int b);
int main(void)
{
        int a,b,A,B;
        printf("enter the two number \n");
        accept(a,b);
        disp(a,b);
                //printf("display rhe given out put=%d",a)

        return 0;

}
void accept(int a,int b)
{
        int m,n;
        scanf("%d",&m);
        //printf("enter the second number \n");
        scanf("%d",&n);
}
void disp(int a,int b)
{
        int x,y;
        printf("display num1== %d == %d",x,y);
}
```

OUTPUT :

```
PS C:\Users\Admin\Desktop\PROGRAMING CODE\Day5assignment> g++ ANS.CPP
PS C:\Users\Admin\Desktop\PROGRAMING CODE\Day5assignment> .\a.exe
enter the two number
150
250
display num1== 150 == 250
PS C:\Users\Admin\Desktop\PROGRAMING CODE\Day5assignment>
```

---------- DAY 02 ASS and Answer----------

----------JAVA Asingnment Day Lab2 Lonch on Date 07/05/2021----------

----------Assingnment With Solutions----------

Name of student : Badgujar Chetan Bhagawan

Roll number :1022_Chetan Badgujar

Subject name : Basic Programming (LabDay2-Assingnments)

Date of Complation : 17/05/2021

```
package labassingment;
//1:Java program to print the following pattern on the console
public class Patarn
{
	public static void main(String[] args)
	{
		int i;
    for(i=0;i<4;i++)
    {
	 System.out.println("*");
	 for(int j=0;j<=i;j++)
	 {
		 System.out.print("*");
	 }
	 }
	}

}
```

OUTPUT:

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

2:Write a program which will accept student information like rollno,name,5 subject marks.calculate total and percentage.calculate grade..

per >75 grade :A

per<74 and >60 :B

per<59 :C

➔

```
import java.util.Scanner;

public class Lab2Q2

{


    public static void main(String[] args)

    {

        Scanner sc=new Scanner(System.in);

        int std,Ronb,sub1,sub2,sub3,sub4,sub5;

        String name,subj1,subj2,subj3,subj4,subj5;

        double perc;

        System.out.println("Enter Student roll number:");

        Ronb=sc.nextInt();

        System.out.println("Roll number of student "+Ronb);

        System.out.println("Enter the Name of student :");

        name=sc.next();

        System.out.println("Name of student :"+name);



        System.out.println("Enter five subject marks :");

        subj1=sc.next();

        subj2=sc.next();

        subj3=sc.next();

        subj4=sc.next();

        subj5=sc.next();

        System.out.println("FIVE SUBJECTS "+subj1+" "  +subj2+" "+subj3+" "+subj4+" "
"+subj5+"" );
```

```
                System.out.println("Enter the marks of students :");

                sub1=sc.nextInt();
                sub2=sc.nextInt();
                sub3=sc.nextInt();
                sub4=sc.nextInt();
                sub5=sc.nextInt();
                System.out.println("subject marks " +sub1+" "+sub2+" "+sub3+"  "+sub4+""+sub5+"
");
        }

}
```

OUTPUT :

3:Write function to swap two numbers.

```
package labassingment;
//3:Write function to swap two numbers.
public class Assingnment
{
        public static void swap(int a,int b)
        {
                int temp=a;
                a=b;
                b=temp;

                System.out.println("A is vale "+a);
                System.out.println("B is value "+b);
        }
```

```
        public static void main(String[] args)
        {
                swap(10,20);
         swap(15,22);
         swap(11,10);

        }

}
```

OUTPUT :

```
A is vale 20
B is value 10
A is vale 22
B is value 15
A is vale 10
B is value 11
```

4:Write functions for making addition of diffrent types(use FunctionOverloading);

```
public class Assingnment
{
	public static void sumFunction()
	{
		int a=10,b=20;
		int add=a+b;

		System.out.println("Add :  "+add);
	}
	public static void sumFunction(int a,int b)
	{
		int add;
		add=a+b;
		System.out.println("Add :  "+add);
	}
	public static void sumFunction(int a,int b,int c,int d)
	{
		int sum;
		sum=a+b+c+d;
		System.out.println("Addition of four paramert :"+sum);
	}

    public static void sumFunction(double d,int in)
    {
	double sum=d+in;
	System.out.println("Addition of this number :"+sum);
   }

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

```
        {
                int n = 123;
                int m= 234;
                int o=10,p=20,q=30,r=40;
                double a=50.20,b=152.10;
                char c;
                sumFunction();
                sumFunction(n,m);
                sumFunction(n,m,o,p);
                sumFunction(a,n);



        }

}
```

OUTPUT :

Add : 30

Add : 357

Addition of four paramert :387

Addition of this number :173.2

5:Write a program to accept array of 5 numbers and display it.

```
package labassingment;
import java.util.Scanner;

//5:Write a program to accept array of 5 numbers and display it.
public class Demn
{


	public static void main(String[] args)
	{
		int arr[]={10,20,30,40,50};
		int i;
			Scanner sc=new Scanner(System.in);
			System.out.println("Enter the 5 elements :");

			for(i=0;i<=4;i++)
			{
				arr[i]=sc.nextInt();
			}
			System.out.println("Printing the array numbers ");
			for(i=0;i<=4;i++)
			{
				System.out.println(i);
			}
			//sc.close();

	}
```

}

OUTPUT :

Enter the 5 elements :

1

2

3

22

33

Printing the array numbers

1

2

3

22

33

6:Write a program which read aaray of 5 elements and print reverse array.

```
package labassingment;

import java.util.Scanner;
public class ReverseArry
{

	public static void main(String[] args)
	{
		int arr[]= {10,20,30,40,50};
	   int i;
		Scanner sc=new Scanner(System.in);
		System.out.println("Enter the 5 elements :");

		for(i=0;i<=4;i++)
		{
			arr[i]=sc.nextInt();
		}
		System.out.println("Printing the array numbers ");
		for(i=5;i>=1;i--)
		{
			System.out.println(i);
		}
		//sc.close();
	}

}
```

OUTPUT :

Enter the 5 elements :

1

2

3

4

5

Printing the array numbers

5

4

3

2

1

7:Write a Java program , accept array ,accept number from user and find the index of number in array if present else show message not exist.

```
package labassingment;
import java.util.Scanner;
//Write a Java program , accept array ,accept number from user and
//find the index of number in array if present else show message not exist.
public class Xyza
{

	public static void main(String[] args)
	{

	  int arr[]= {10,20,30,40,50};
	  int i,no;
		Scanner sc=new Scanner(System.in);
		System.out.println("Enter the 5 elements :");

		for(i=0;i<=4;i++)
		{
			arr[i]=sc.nextInt();
		}
		System.out.println("Printing the array numbers ");
		for(i=0;i<=4;i++)
		{
			System.out.println(arr[i]);
		}
		//sc.close();
		System.out.println("Find the array index in given array : ");

		System.out.println("Enter Number to Search:");
```

```
                no=sc.nextInt();

                for(i=0;i<arr.length;i++)
                {

                        if(arr[i]==no)
                        {
                        System.out.println("Number present  at index:"+i);

                        }
                        else
                        {
                                System.out.println("Arry element not found \n ");
                        }

                }

        }

}
```

OUTPUT :

Enter the 5 elements :

100

200

300

400

500

Printing the array numbers

100

200

300

400

500

Find the array index in given array :

Enter Number to Search:

500

Arry element not found

Arry element not found

Arry element not found

Arry element not found

Number present at index:4

8:Write a Java program to find the maximum and minimum value of an array.

```
package labassingment;

import java.util.Scanner;
public class SweetP
{

        public static void main(String[] args)
        {
                int arr[]= {10,20,30,40,50};
           int i,no;
                Scanner sc=new Scanner(System.in);
                System.out.println("Enter the 5 elements :");

                for(i=0;i<=4;i++)
                {
                        arr[i]=sc.nextInt();
                }
                System.out.println("Printing the array numbers ");
                for(i=0;i<=4;i++)
                {
                        System.out.println(arr[i]);
                }
                System.out.println("Find the maxi and min value inside the given array: ");
                int max = arr[0];
           int min = arr[0];
           // iterate and compare from array index 1
           for(i = 1; i < arr.length; i++)
           {
             if(max < arr[i])
              {
```

```
            max = arr[i];
          }
          else
                if(min > arr[i])
                {
           min = arr[i];
          }
        }
        System.out.println("Maximum number = "
            + max + " Minimum number = " + min);
              //sc.close();
              //System.out.println("Find the array index in given array : ");
      }

}
```

OUTPUT:

```
Enter the 5 elements :
100
200
300
500
900
Printing the array numbers
100
200
300
500
900
Find the maxi and min value inside the given array:
Maximum number = 900 Minimum number = 100
```

9: Write a program to create an array of integers and perform following operations on that array like finding the sum, average, maximum and minimum number in that array. Accept the numbers of the array from user.

```
package labassingment;

import java.util.Scanner;
public class Mango
{

	public static void main(String[] args)
	{
		int arr[]= {10,20,30,40,50,60,70,80,90,100};
		int i,sum=0;
		float aver;
		Scanner sc=new Scanner(System.in);
		System.out.println("Enter the user number if want up to array size =10: ");
		for(i=0;i<10;i++)
		{
			arr[i]=sc.nextInt();

		}
		System.out.println("Printing user numbers :");
		for(i=0;i<10;i++)
		{
			System.out.println(arr[i]);
		}
		System.out.println("Addition/Sum of given array :");
		for(i=0;i<10;i++)
```

```
                {
                        sum=sum+arr[i];
                }
                System.out.println(sum);
                System.out.println("Average of given array :");
                        aver=sum/10;
                System.out.println("Average"+aver);

                System.out.println("MAX and MIN number of given array");
                int max = arr[0];
            int min = arr[0];
            // iterate and compare from array index 1
            for(i = 1; i < arr.length; i++)
            {
              if(max < arr[i])
              {
                max = arr[i];
              }
              else
                    if(min > arr[i])
                    {
                 min = arr[i];
                }
            }
            System.out.println("Maximum number = " + max + " Minimum number = " + min);
        }

}
```

OUTPUT :

Enter the user number if want up to array size =10:

12

23

53

56

86

88

45

52

74

55

Printing user numbers :

12

23

53

56

86

88

45

52

74

55

Addition/Sum of given array :

544

Average of given array :

Average54.0

MAX and MIN number of given array

Maximum number = 88 Minimum number = 12

10: Write a program to input basic salary of an employee and calculate its Gross salary according to following: Basic Salary <= 10000 : HRA = 20%, DA = 80% Basic Salary <= 20000 : HRA = 25%, DA = 90% Basic Salary > 20000 : HRA = 30%, DA = 95%

```
package labassingment;
import java.util.Scanner;
public class Lab2Q10
{

	public static void main(String[] args)
	{
		int basic=0;
		double gross=0;
		System.out.println("Enter basic salary");
		Scanner sc=new Scanner(System.in);
		if(basic<=10000)
		{
			gross=(0.2*basic)+(0.8*basic);
					System.out.println("gross salary"+gross);

		}
		else if(basic<=20000)
		{
			gross=(0.25*basic)+(0.9*basic);
			System.out.println("gross salary"+gross);
		}
		else
```

```
                {
                        gross=(0.30*basic)+(0.95*basic);
                        System.out.println("Gross salary"+gross);
                }

        }

}
```

OUTPUT:

11:Write a menu driven program for stationary shop.Items are 1:Pen 2:Pencil 3:NoteBook 4:Bottle 5:ColorBox.

1 pen cost is 10Rs,Pencil is 5 rs.NoteBook is 20 rs Bottle is 30 rs and ColorBox is at 50 Rs.

Calculate Total of all purchesed items.

```
package labassingment;
import java.util.Scanner;;
//:Write a menu driven program for stationary shop.Items are 1:Pen 2:Pencil 3:NoteBook 4:Bottle 5:ColorBox.
//1 pen cost is 10Rs,Pencil is 5 rs.NoteBook is 20 rs Bottle is 30 rs and ColorBox is at 50 Rs.
//Calculate Total of all purchesed items.
public class Menu
{

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

```
int[] arr;
int no,price;
int choice,sum=0,Sum = 0;
boolean flag = true;
Scanner sc = new Scanner(System.in);

System.out.println("Enter Size:");
int size = sc.nextInt();// size
arr = new int[size];
System.out.println("-----Shop Avilable Material----");
System.out.println("Pen price /10rps");
System.out.println(":Pencil / 5 rps");
System.out.println("NoteBook /20 RPes ");
System.out.println("Bottle / 30 Rps");
System.out.println("ColorBox / 50 Rps");
System.out.println("0 : Exit");
System.out.println(": 6 Clculating Total of ALL Perchesing items ");



while (flag != false)
{
        System.out.println("Enter Choice:");
        choice = sc.nextInt();

        switch (choice)
        {
        case 1:
                int Pen=0;
                System.out.println(" enter the PEN quntity ");
```

```
            Pen=sc.nextInt();
            price=Pen*10;
            System.out.println(price);
            Sum=price+sum;

            break;
        case 2:
            int Pencil=0;
            System.out.println("Enter the pencil qntity :");
            Pencil=sc.nextInt();
            price=Pencil*5;
            System.out.println(price);
            Sum=price+sum;


            break;
        case 3:

            int Notebook=0;
            System.out.println("Enter the Notebook quntity:");
            Notebook=sc.nextInt();
            price=Notebook*20;
            System.out.println(price);
            Sum=price+sum;
            /*
            for(int i=0;i<arr.length;i++)
            {

                if(arr[i]==no)
                {
                System.out.println("Number present  at index:"+i);
```

```
                }

            }*/

            break;
        case 4:
            int Bottel=0;
            System.out.println("enter the Bottel quntity :");
                    Bottel=sc.nextInt();
                    price=Bottel*30;
                    System.out.println(price);
                    Sum=price+sum;

            //for loop
//          for(int i=0;i<arr.length;i++)
//          {
//          sum=sum+arr[i];
//
//          }

            //for each



            System.out.println("Sum="+sum);

            break;
        case 5:
            int colorbox=0;
            colorbox=sc.nextInt();
```

```
                price=colorbox*50;
                System.out.println(price);
                Sum=price+sum;

                break;
            case 6:
                int total=0;
                System.out.println("total cost");
                total=Sum;
                System.out.println(total);
                flag=false;
                break;

            default:
                break;
            }
            }
    }
    }
```

11:Write a menu driven program for stationary shop.Items are 1:Pen 2:Pencil 3:NoteBook 4:Bottle 5:ColorBox.

```
package labassingment;

import java.util.Arrays;

import java.util.Scanner;


public class Menu

{


	public static void main(String[] args)

	{

		int[] arr;

		int no,price;

		int choice,sum=0;

		boolean flag = true;

		Scanner sc = new Scanner(System.in);


		System.out.println("Enter Size:");

		int size = sc.nextInt();// size

		arr = new int[size];


		System.out.println("-----Shop Avilable Material----");

		System.out.print("Pen price /10rps");

		System.out.print(":Pencil / 5 rps");

		System.out.print("NoteBook /20 RPes ");

		System.out.print("Bottle / 30 Rps");

		System.out.print("ColorBox / 50 Rps");

		System.out.println("2.  : Exit");
```

```
System.out.println("1.: Clculating Total of ALL Perchesing items :");



while (flag != false)
{
	System.out.println("Enter Choice:");
	choice = sc.nextInt();

	switch (choice)
	{
	case 1:
		int Pen=0;
		System.out.println(" PEN ");
		price=Pen*10;
		System.out.println(price);
		/*read array
		for(int i=0;i<arr.length;i++)
		{

			arr[i]=sc.nextInt();
		}
		*/
		break;
	case 2:
		System.out.println("Array Element");
//		for(int i=0;i<arr.length;i++)
//		{
//			System.out.println(arr[i]);
//
```

```
//                      }

                        //for each
                        for(int i:arr)
                        {
                                System.out.println(i);

                        }

                        break;
                case 3:
                        System.out.println("Enter Number to Search:");
                        no=sc.nextInt();

                        for(int i=0;i<arr.length;i++)
                        {

                                if(arr[i]==no)
                                {
                                System.out.println("Number present  at index:"+i);

                                }

                        }

                        break;
                case 4:
                        //for loop
//                      for(int i=0;i<arr.length;i++)
//                      {
//                      sum=sum+arr[i];
```

```
//
//                              }

                                //for each
                                for(int i:arr)
                                {
                                        sum=sum+i;

                                }


                                System.out.println("Sum="+sum);

                                break;
                        case 5:

                        Arrays.sort(arr);
                        System.out.println("----After Sort-----");
                        for(int i:arr)
                        {
                                System.out.println(i);

                        }

                                break;
                        case 6:
                                flag=false;
                                break;

                        default:
                                break;
```

```
                        }

                    }

                }

}
```

OUTPUT:

Enter Size:

2

-----Shop Avilable Material----

Pen price /10rps

:Pencil / 5 rps

NoteBook /20 RPes

Bottle / 30 Rps

ColorBox / 50 Rps

0 : Exit

: 6 Clculating Total of ALL Perchesing items

Enter Choice:

1

enter the PEN quntity

1

10

Enter Choice:

2

Enter the pencil qntity :

2

10

Enter Choice:

3

Enter the Notebook quntity:

1

20

Enter Choice:

4

enter the Bottel quntity :

1

30

Sum=0

Enter Choice:

5

1

50

Enter Choice:

6

total cost

50

----------3 lab Assingnment----------
----------Day 3 lab Assingnment with solution ----------

date : 09/05/2021

1:Write a function to accept array of string. Display all elements in uppercase.

```
import java.util.Scanner;
public class AccepArrayUpper
{

	public static void main(String[] args)
	{
		System.out.println("----------Programe for the array string elements converted into upper case:  ---");
		Scanner sc=new Scanner(System.in);

		int SIZE;
		String aar[];


		System.out.println("enter the size of array");
		SIZE=sc.nextInt();
		String aar1[]=new String[SIZE];
		//String aar[]=new String[5];
		System.out.println("Enter the Array elements of String:");
		for(int i=0;i<aar1.length;i++)
		{
			aar1[i]=sc.next();
		}
		for(int i=0;i<aar1.length;i++)
		{
```

```
                System.out.println(aar1[i].toUpperCase());
            }
```

OUTPUT:

```
----------Programe for the array string elements converted into upper case:  ---
enter the size of array
3
Enter the Array elements of String:
iacsd
pune
akurdi
IACSD
PUNE
AKURDI
```

2:Write a Java program to accept 2D aaray elements. Display all elements.

```
//2:Write a Java program to accept 2D aaray elements. Display all elements.
import java.util.Scanner;
public class Array2DQ2
{

	public static void main(String[] args)
	{
		System.out.println("-------Programme for to accept 2D aaray elements. Display all elements.------");
		Scanner sc=new Scanner(System.in);
		int Row,Colm;
		System.out.println("Enterr the size of array :");
		Row=sc.nextInt();
		Colm=sc.nextInt();
		int a[][]=new int[Row][Colm];

		System.out.println("Exsepts elemets from user :");

		for(int i=0;i<a.length;i++)
		{
			for(int j=0;j<a.length;j++)
			{
				a[i][j]=sc.nextInt();
			}
		}
		System.out.println("Display the accepting numbers from 2D Arays :");

		for(int i=0;i<a.length;i++)
```

```
                {
                        for(int j=0;j<a.length;j++)
                        {
                                System.out.println("Display the elements "   +a[i][j]);
                        }
                }


        }

}
```

OUTPUT:

```
-------Programme for to accept 2D aaray elements. Display all elements. ------
Enterr the size of array :
3
3
Exsepts elemets from user :
1
2
3
4
5
6
7
8
9
Display the accepting numbers from 2D Arays :
Display the elements 1
```

Display the elements 2

Display the elements 3

Display the elements 4

Display the elements 5

Display the elements 6

Display the elements 7

Display the elements 8

Display the elements 9

3:Write a java program to make the addition of two 2D array And store result in Third array.

```
import java.util.Scanner;
public class AdditionOfArrayinThirdArray
{

	public static void main(String[] args)
	{
		System.out.println(" Programme for the Make the addition of two 2D array And store result in Third array.");
		Scanner sc=new Scanner(System.in);
		int size1,size2,size3;

		System.out.println("Size fro ar1 ==:");
		size1=sc.nextInt();
		int ar1[]=new int[size1];
		System.out.println("Size fro ar2 ==:");
		size2=sc.nextInt();
		int ar2[]=new int[size2];
		System.out.println("Size fro ar3 == :");
		size3=sc.nextInt();
		int ar3[]=new int[size3];

		System.out.println("Enter the element in ar1 ==: ");
		for(int i=0;i<ar1.length;i++)
		{
			ar1[i]=sc.nextInt();
		}

		System.out.println("Printing array elements in ar1 ==: ");
```

```
for(int i=0;i<ar1.length;i++)
{
        System.out.println("Array elments of ar2====   "+ar1[i]);
}

System.out.println("Enter the element in ar2 ==   :");
for(int i=0;i<ar2.length;i++)
{
        ar2[i]=sc.nextInt();
}

System.out.println("Printing array elements in ar2 ====:");
for(int i=0;i<ar2.length;i++)
{
        System.out.println("Array element of ar2      ===   "+ar2[i]);
}
 System.out.println("----ADDITION OG TWO ARRAY IN 3RD ARRAY----------");
 for(int i=0;i<ar3.length;i++)
 {
         ar3[i]=ar1[i]+ar2[i];
 }

 for(int i=0;i<ar3.length;i++)
 {
         System.out.println(ar3[i]);
 }
 System.out.println("----ADDITION OG TWO ARRAY IN 3RD ARRAY----------");
```

```
        }

}
```

OUTPUT:

```
Programme for the Make the addition of two 2D array And store result in Third array.
Size fro ar1  ==:
4
Size fro ar2   ==:
4
Size fro ar3  == :
4
Enter the element in ar1 ==:
11
22
33
44
Printing array elements in ar1 ==:
Array elments of ar2====   11
Array elments of ar2====   22
Array elments of ar2====   33
Array elments of ar2====   44
Enter the element in ar2 ==   :
11
22
33
44
Printing array elements in ar2 ====:
Array element of ar2      ===   11
Array element of ar2      ===   22
Array element of ar2      ===   33
```

Array element of ar2 === 44

----ADDITION OF TWO ARRAY IN 3RD ARRAY----------

22

44

66

88

----ADDITION OF TWO ARRAY IN 3RD ARRAY----------

4.Write a function /method which takes variable no of int numbers as an argument and returns the sum of these arguments as an output.

```
import java.util.Scanner;

public class SumofArguments {

	public static void sum(int a,int b)

	{

		int total=0;

		total=a+b;

		System.out.println(total);

	}

	public static void sum(int a,int b,int c,int d)

	{

		int total=0;

		total=a+b+c+d;

		System.out.println(total);

	}

	public static void sum(int a,int b,int c)

	{

		int total=0;

		total=a+b+c;

		System.out.println(total);

	}

	public static void sum(double a,int b)

	{

		double total=0.0;

		total=a+b;

		System.out.println(total);

	}

	public static void sum(double a,double b,double c,double d)

	{
```

```
        double total=0;
        total=a+b+c+d;
        System.out.println(total);
    }



    public static void main(String[] args)
    {
        int x,y,z,m,n;
        double p,q,r,s,t;
        char c,ch;
        String st;
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the numbers ");
        x=sc.nextInt();
        y=sc.nextInt();
        z=sc.nextInt();
        m=sc.nextInt();
        //p=sc.nextDouble();
//      q=sc.nextDouble();
        //r=sc.nextDouble();
        //s=sc.nextDouble();
        sum(x,y);
        sum(x,y,z);

        sum(x,y,z,m);



    }
```

}

OUTPUT :

Enter the numbers

100

200

300

500

300

600

1100

5:Write a program to merge two arrays into a single array.

==>

```
import java.util.Scanner;
public class MergingOfArrayinThirdArray
{

	public static void main(String[] args)
	{
		System.out.println(" Programme for the Make the addition of two 2D array And store result in Third array.");
		Scanner sc=new Scanner(System.in);
		int size1,size2,size3;

		System.out.println("Size fro ar1  ==:");
		size1=sc.nextInt();
		int ar1[]=new int[size1];
		System.out.println("Size fro ar2  ==:");
		size2=sc.nextInt();
		int ar2[]=new int[size2];
		System.out.println("Size fro ar3  == :");
		size3=sc.nextInt();
		int ar3[]=new int[size3];

		System.out.println("Enter the element in ar1 ==:    ");
		for(int i=0;i<ar1.length;i++)
		{
			ar1[i]=sc.nextInt();
		}

		System.out.println("Printing array elements in ar1 ==:     ");
```

```
for(int i=0;i<ar1.length;i++)
{
        System.out.println("Array elments of ar2====   "+ar1[i]);
}

System.out.println("Enter the element in ar2 ==   :");
for(int i=0;i<ar2.length;i++)
{
        ar2[i]=sc.nextInt();
}

System.out.println("Printing array elements in ar2 ====:");
for(int i=0;i<ar2.length;i++)
{
        System.out.println("Array element of ar2      ===   "+ar2[i]);
}
 System.out.println("----MERGING OF ARRAY IN THIRD ARRAY---------");
 for(int i=0;i<ar3.length;i++)
 {
         ar3[i]=ar1[i];

 }

 for(int i=0;i<ar3.length;i++)
 {
         System.out.print("    "+ar3[i]);
 }
 for(int J=0;J<ar3.length;J++)
 {
         ar3[J]=ar2[J];
```

```
                }
                for(int i=0;i<ar3.length;i++)
                {
                        System.out.println("    "+ar3[i]);
                }
                // System.out.println("----ADDITION OG TWO ARRAY IN 3RD ARRAY----------");




        }


        }
```

OUTPUT:

Programme for the Make the addition of two 2D array And store result in Third array.

Size fro ar1 ==:

4

Size fro ar2 ==:

4

Size fro ar3 == :

4

Enter the element in ar1 ==:

1

2

3

4

Printing array elements in ar1 ==:

Array elments of ar2==== 1

Array elments of ar2==== 2

Array elments of ar2==== 3

Array elments of ar2==== 4

Enter the element in ar2 == :

5

6

7

8

Printing array elements in ar2 ====:

Array element of ar2 === 5

Array element of ar2 === 6

Array element of ar2 === 7

Array element of ar2 === 8

----MERGING OF ARRAY IN THIRD ARRAY---------

1 2 3 4 5

6

7

8

6:Write a java program to sort array.

==>

```
import java.util.Scanner;
public class MergingofArrryinThirdArray{

	public static void main(String[] args)
	{
				int[] arr= {1,2,3,4,5};
				int[] arr1=new int[3] ;


				System.out.println("Enter Size");
				Scanner sc=new Scanner(System.in);
				int size=sc.nextInt();

				int[] data=new int[size];


				for(int i=0;i<data.length;i++)
				{
					data[i]=sc.nextInt();
				}
				for(int i=0;i<data.length;i++)
				{
					System.out.println(data[i]);
				}
				System.out.println("Sorting of given array===>-");
				int temp;
```

```
                for(int i=0;i<data.length;i++)
                {
                        for(int j=i+1;j<data.length;j++)
                        {
                                if(data[i]>data[j])
                                {
                                        temp=data[i];
                                        data[i]=data[j];
                                        data[j]=temp;
                                }

                        }
                }

                for(int i=0;i<data.length;i++)
                {
                        System.out.println(data[i]);
                }




        }

}
```

OUTPUT==>

Enter Size

5

7

3

1

9

5

7

3

1

9

5

Sorting of given array===>-

1

3

5

7

9

7:Write a java program to convert char array into String.

```
//7:Write a java program to convert char array into String.
import java.util.Scanner;
public class ConvertingCharToString
{
public static void main(String[] args)
        {
                System.out.println("-----java program to convert char array into String.-------");
                Scanner sc=new Scanner(System.in);
                System.out.println("Enter the character :");
                char ch[]= {'A','B','C','D','E','D','E','F','G','H','I','J','K'};
                for(int i=0;i<12;i++)
                {
                        System.out.print(ch[i]);
                }

        }

}
```

OUTPUT:

```
-----java program to convert char array into String.-------

Enter the character :

ABCDEDEFGHIJ
```

8: Create a java application for the following.

Create a Customer class , with data members (all private : tight encapsulation)

name(String),email(String),age(int).Supply a parameterized constructor to accept all details from user.

Supply an argument less constructor to init default name to "Riya" , email to "riya@gmail.com",age=25.

Write a method displayCustomer to display customer details.

9:Create Date class with data members day,month,year.create getter setter for data members. writ display function to display date.

```
import java.util.Scanner;
public class Date
{
	int day;
	int month;
	int year;
	Date()
	{
		String day="Sunday";
		int date=10;
		String month="May";
		int year=2021;
```

```
	}
	void display()
	{
		System.out.println(day);
		System.out.println(year);
	}



	public static void main(String[] args)
	{Scanner sc=new Scanner(System.in);
		Date d1=new Date();
		d1.display();



	}

}
```

OUTPUT:

0

0

----------DAY 04 ASS and Solution ----------

1:Create Date class with data members day,month,year.

Write a method to accept all data members.write display function to display date.

```
/*9:Create Date class with data members day,month,year.
 * create getter setter for data members.
 * writ display function to display date.
 */
public class Dateclass
{
	private String day;
	private String month;
	private int year;
	Dateclass()
	{
		day="Defaoult DAY";
		month="Defoult Month";
		year=000;
	}
	Dateclass(String day,String month,int year)
	{
		this.day=day;
		this.month=month;
		this.year=year;
	}

	public void displaydDate()
	{
		System.out.println(day+"/"+month+"/"+year);
	}
```

```
public void setDay(String day)
{
        this.day=day;
}
public void getDay()
{
        System.out.println(day);
}
public void setYear(int year)
{
        this.year=year;
}
public void getYear()
{
        System.out.println(year);
}
public void setMonth(String month)
{
        this.month=month;
}
public void getMonth()
{
        System.out.println(month);
}


public static void main(String[] args)
{
        Dateclass D1=new Dateclass();
        Dateclass D2=new Dateclass("Sunday "," May ",2021);
        System.out.println("Defoult date :");
```

```
                D2.displaydDate();

                System.out.println("set day as a Monday :");
                D2.setDay("Monday");
                D2.getDay();
                D2.displaydDate();

                System.out.println("-----------------------------------");



                System.out.println("set month as june  :");
                D2.setMonth("June");
                D2.getMonth();
                D2.displaydDate();
                System.out.println("-----------------------------------");

                System.out.println("set year as 2050 :");
                D2.setYear(2050);
                D2.getYear();
                D2.displaydDate();



        }

}
```

OUTPUT :

Defoult date :

Sunday / May /2021

set day as a Monday :

Monday

Monday/ May /2021

---

set month as june :

June

Monday/June /2021

---

set year as 2050 :

2050

Monday/June /2050

2:>Create a java applicstion for the following.

Create a Customer class , with data members (all private : tight encapsulation)

name(String),email(String),age(int), creditLimit(double)

2.1 Write acceptInfo() method to accept customer details:

2.2 Write a method , showDetails to display customer name & credit limit only

Naming convention : public void setCreditLimit(double limit) {...}

public double getCreditLimit(){...}

```
import java.util.Scanner;
public class customer
{
	private String name;
	private String gmail;
	private int age;
	private double creditlimit;
	public customer()
	{
		name="Riya";
		gmail="riya@gmail.com";
		age=25;
		creditlimit=10000;
	}
	public customer(String name,String gmail,int age,double creditlimit)
	{
		this.name=name;
		this.gmail=gmail;
		this.age=age;
		this.creditlimit=creditlimit;
	}
```

```
public void display()
{
        System.out.println(name+" "+gmail+" "+age+" "+creditlimit);
}
public void setDetails(String name,double creditlimit )
{

        this.name=name;
        this.creditlimit=creditlimit;
}
public void setCreditLimit(double creditlimit  )
{
        this.creditlimit=creditlimit;
}
public void getCreditLimit()
{
        System.out.println(creditlimit);
}
public void getDetails()
{
        System.out.println(name+" "+creditlimit);
}

public static void main(String[] args)
{
        Scanner sc=new Scanner(System.in);
        customer s1=new customer();
        customer s2=new customer("JOHN","Shantanu.gmail.com",35,258.25);
        s2.setDetails("Shantanu",80000);
        s2.getDetails();
        s2.display()
```

```
}
}
```

OUTPUT :

Shantanu 80000.0

Shantanu Shantanu.gmail.com 35 80000.0

2.3 Create a TestCustomer class . Use scanner to accept user i/ps.

Create 2 customers object.

Display customer details of both customers.

Prompt user , for changing creditLimit of the customer2.

Display new credit limit on the console.

```
import java.util.Scanner;
public class Testcustomer
{
        private
        int Cusno;
        String name;
        double salary;
        public Testcustomer()
        {
                Cusno=100;
                name="SUMO";
                salary=10000;

        }
        public Testcustomer(int Cusno,String name,double salary)
        {
                this.Cusno=Cusno;
                this.name=name;
                this.salary=salary;
```

```
}
public void setName(String name)
{
        this.name=name;
}
public void getName()
{
        System.out.println(name);
}
public void customerinfo(int Cusno,String name,double salary)
{
        this.Cusno=Cusno;
        this.name=name;
        this.salary=salary;
}
public void displaycustoinfo()
{
        System.out.println(Cusno+" "+name+""+salary);
}

public static void main(String[] args)
{
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter Rps :");

        int rps=sc.nextInt();
        System.out.println("Accepting rupess of customer :"+rps);
        //Testcustomer t1=new Testcustomer();

        Testcustomer t2=new Testcustomer(1,"Cm1",1.5000);
        t2.customerinfo(10,    "Aman",    65000.500);
```

```
                t2.displaycustoinfo();
                t2.setName("AMIR");
                t2.getName();
        }

}
```

OUTPUT:

Enter Rps :

15000

Accepting rupess of customer :15000

10 Aman65000.5

AMIR

3:Consider that payroll software needs to be developed for computerization of operations of an ABC organization. The organization has employees.

3.1. Construct a class Employee with following members using private access specifies:

Employee Id integer

Employee Name string

Basic Salary double

HRA double

Medical double

PF double

PT double

Net Salary double

Gross Salary double

Please use following expressions for calculations:

* HRA = 50% of Basic Salary

* PF = 12% of Basic Salary

* PT = Rs. 200

```
import java.util.Scanner;
public class Employee
{
        private int id;
        private String Name;
        private double basicSalary;
        private double HRA;
        private double Medical;
        private double PF;
        private double NetSalary;
        private double  GrossSalary;
        private double PT;
        private String organization;
```

```
public  Employee()
{
        id=0;
        Name="XYZ";
        basicSalary=0.0;
        HRA=0.0;
        Medical=0.0;
        PF=0.0;
        NetSalary=0.0;
        GrossSalary=0.0;
        PT=0.0;
        organization="Default";
}
public Employee(int id,String Name,double basicSalary,double HRA,double Medical,double PF,double NetSalary,double GrossSalary,String organization,double PT)
{
        id=id;
        Name=Name;
        basicSalary=basicSalary;
        HRA=HRA;
        Medical=Medical;
        PF=PF;
        GrossSalary=GrossSalary;
        PT=PT;
        organization=organization;

}
public void setBasicSalary(double basicSalary)
{
        this.basicSalary=basicSalary;
```

```
	}
	public void getBasicSalary()
	{
		System.out.println("Basic salary of given employees is : "+basicSalary);
	}
	public void setHRA(double HRA)
	{
		this.HRA=HRA;
	}
	public void getHRA()
	{

		System.out.println("HRA of given Employee :"+HRA);
	}
	public void ClaculatingHRA_and_printing(double basicSalary)
	{
		double H=0;
		H=basicSalary*50/100;
		System.out.println("Calculating the basic salary of employee 50% of basicsalary
:"+H);
	}
	public void setPF(double PF)
	{
		 this.PF=PF;

	}
	public void getPF()
	{
		double PF=basicSalary*12/100;
		System.out.println("12% Pf on basicSalary : "+PF);
	}
```

```
	public void setPT(double PT)
	{
		this.PT=PT;
	}
	public void getPT()
	{
		System.out.println("PT of Employee is : "+PT);
	}




	public static void main(String[] args)
	{
		// TODO Auto-generated method stub
		Scanner sc=new Scanner(System.in);
		Employee E1=new Employee();
		Employee E2=new
Employee(100,"abc",15000.00,1500.00,500.20,152.00,8000.00,6000.00,"AABBCC",100.00);


		E2.setHRA(200);
		E2.getHRA();



		E2.setBasicSalary(50000);
		E2.getBasicSalary();


		E2.ClaculatingHRA_and_printing(50000);


		E2.setPF(12);
		E2.getPF();
```

```
                E2.setPT(200);
                E2.getPT();

        }

};
```

OUTPUT :

HRA of given Employee :200.0

Basic salary of given employees is : 50000.0

Calculating the basic salary of employee 50% of basicsalary :25000.0

12% Pf on basicSalary : 6000.0

PT of Employee is : 200.0

3.2. Write methods to display the details of an employee and calculate the gross and net salary.

* Goss Salary = Basic Salary + HRA + Medical
* Net Salary = Gross Salary – (PT + PF)

Create a TestEmployee Class. Create Object of employee class and assign values and display Details.

```
import java.util.Scanner;
public class TestEmployee
{
        private double grossSalary;
        private double basicSalary;
        private double HRA;
        private double Medical;
        private double Netsalary;
        private double PT;
        private double PF;
```

```
	public double GROSS,NETSALARY;


	TestEmployee()
	{
		grossSalary=0.0;
		basicSalary=0.0;
		HRA=0.0;
		Medical=0.0;
		Netsalary=0.0;
		PF=0.0;
		PT=0.0;


	}
	public TestEmployee(double grossSalary,double basicSalary,double HRA,double
Medical,double PF,double PT,double Netsalary)
	{
		this.grossSalary=grossSalary;
		this.basicSalary=basicSalary;
		this.HRA=HRA;
		this.Medical=Medical;
		this.PF=PF;
		this.PT=PT;
		this.Netsalary=Netsalary;
	}
	public void Empdetails()
	{
		System.out.println("----------------------------------------");
		System.out.println("Basic salary of Employee :"+basicSalary);
		System.out.println("Gross salary of employee  :"+grossSalary);
		System.out.println("HRA of employee :"+HRA);
		System.out.println("PF on basic salary :"+PF);
```

```
        System.out.println("PT on basic salary :"+PT);
        System.out.println("Net salary of Empoyee : "+Netsalary);
        System.out.println("Medical facility for Employee :"+Medical);
    }
    public void calculatingGrossSalary(double basicSalary,double HRA,double Medical)
    {
        System.out.println("-----------------------------------------");
        GROSS=basicSalary+HRA+Medical;
    }
    public void displyCalcultedSalary()
    {
        //System.out.println("-----------------------------------------");
        System.out.println("Gross Salary of Employee : "+GROSS);
    }
    public void calculateNetSalary(double PT,double PF)
    {
        NETSALARY=GROSS-(PT+PF);
    }
    public void dispCalculateNetsalary()
    {
        System.out.println("-----------------------------------");
        System.out.println("Netsalary of given employee is :"+NETSALARY);

    }



    public static void main(String[] args)
    {
        TestEmployee E1=new TestEmployee();
```

```
        TestEmployee E2=new TestEmployee(20000.100, 19000.50, 1200.00 ,40000.00,
1200.00, 1500.200, 50000.50);
        E2.Empdetails();

        E2.calculatingGrossSalary(32000.700,2500.200,1200.200);
        E2.displyCalcultedSalary();



        System.out.println("-----------------------------------");

        E2.calculateNetSalary(3000,2500);
        E2.dispCalculateNetsalary();
}
}
```

OUTPUT:

```
-----------------------------------------
Basic salary of Employee :19000.5
Gross salary of employee  :20000.1
HRA of employee :1200.0
PF on basic salary :1200.0
PT on basic salary :1500.2
Net salary of Empoyee : 50000.5
Medical facility for Employee :40000.0
-----------------------------------------
Gross Salary of Employee : 35701.1
-----------------------------------
-----------------------------------
Netsalary of given employee is :30201.1
```


----------DAY 05 ASS and Solutions : ----------

Problem Statement 1

1.1:Create 2 classes Student and Batch. Student class is in pack1 and Batch
class is in pack2. Write accept() and display() methid in both the class to accept and to display info.
Write a Test class to print Student and Batch
information.

```
import StudentPackege.StudentClass;
import BatchPackage.BatchClass;
/*1.1:Create 2 classes Student and Batch. Student class is in pack1 and Batch
class is in pack2. Write accept() and display() methid in both the class to accept and to display info.
Write a Test class to print Student and Batch
information.*/
public class TestStudentBatch
{

	public static void main(String[] args)
	{

		System.out.println(" Enter the students details ");
		StudentClass s1=new StudentClass();
		s1.acceptInfo();
```

```
                s1.display();

                System.out.println("Enter batch number :");
                BatchClass s2=new BatchClass();
                s2.acceptInfo();
                s2.display();



        }

}
```

OUTPUT:

```
 Enter the students details
Enter the students info: Nmae ,roll number, gmail,percentages
IACSD
101
IACSD.123@GMAIL.COM
90.90
101
IACSD
IACSD.123@GMAIL.COM
90.9
Enter batch number :
Enter the BARCH number
100
100
```

1.2:Use the Student and Batch classes created earlier. It should contain

public rollNo,Public Name, private Grade and default totalMarks attributes and using Batch class, check accessibility of there attributes in same package .

==>

```
import StudentPackege.StudentClass;
import BatchPackage.BatchClass;
/*
1.2:Use the Student and Batch classes created earlier. It should contain
public rollNo,Public Name, private Grade and default totalMarks attributes and using Batch
class, check accessibility of there attributes in same package .*/
public class TestStudentBatch
{

        public static void main(String[] args)
        {

                System.out.println(" Enter the students details ");
                StudentClass s1=new StudentClass();
                BatchClass s2=new BatchClass();

                s2.setBatchClass(159);
                s2.getBatchClass();
                s2.display();

                s1.setRoll(101);
                s1.getRoll();
                s1.display();

                s1.setName("HARRARY");
                s1.getName();
                s1.display();
```

```
                s1.setGread(99.52);
                s1.getGread();
                s1.display();
        }

}
```

OUTPUT;

```
Enter the students details
159
101
Defaoult
0
0.0
101
HARRARY
0
0.0
101
HARRARY
0
99.52
```

1.3

Create new package pack2.

create class testStudent in pack3;

create object of Student class from pack1 and access methods.Try to check accessibility.

Problem Statement 2:

2.1: Create Employee class with empid,name,address,salary.Use Getter Setters

```
public class Empl
{
	private int id=1;
	private String name="poter";
	private String Addr="Pune";
	private double salary=90000.500;
	public void setAdd(String Addr)
	{
		this.Addr=Addr;
	}
	public String getAdd()
	{
		return Addr;
	}
	public void setName(String name)
	{
		this.name=name;
	}
	public String getName()
	{
		return name;
	}
	public void setId(int id)
```

```
{
        this.id=id;
}
public int getId()
{
        return id;
}
public void display()
{
        System.out.println("id       :");
        System.out.println(name);
        System.out.println(Addr);
        System.out.println(salary);
}
public static void main(String[] args)
{
        Empl s1=new Empl();

        System.out.println("set ID of Emplayee");
        s1.getId();
        s1.setId(101);
        s1.display();

        System.out.println("set ID of Emplayee");
        Empl s2=new Empl();
        s2.setId(200);
        s2.getId();
        s2.display();
        System.out.println("Geting name :");
        s2.setName("HeroHonda");
        s2.getName();
```

```
                s2.display();

                System.out.println("Set the ADDRESS of Emplyee :");
                s2.setAdd("Dhule");
                s2.getAdd();
                s2.display();

                System.out.println("Defoult name of Emplyee class :");
                Empl s3=new Empl();
                s3.display();

        }

}
```

OUTPUT:

```
set ID of Emplayee
id      :
poter
Pune
90000.5
set ID of Emplayee
id      :
poter
Pune
90000.5
Geting name :
id      :
HeroHonda
Pune
90000.5
Set the ADDRESS of Emplyee :
```

id :

HeroHonda

Dhule

90000.5

Defoult name of Emplyee class :

id :

poter

Pune

90000.5

2.2 :create array of 5 employees...show all employees using for loop as well as for each loop...in same assignment

2.3:create array of 5 employees ...show those employee who are getting salary >20000.

```
#include<iostream>
using namespace std;

int main(void)
{
  string Em[5]={"bob","tom","sam","emp1","emp2"};
  int i=0;
  cout<<"Printing the five array employee by using for loop:"<<endl;
  for(int i=0;i<=4;i++)
  {
     cout<<"employeesno:"<<i<<"Employee name is :"<<Em[i]<<endl;
  }
 /* for(int i=0;i<=4;i++)
  {
   cin>>Em[i];
  }*/
  int Emp[5];

  Emp[0]=25000;
  Emp[1]=30000;
  Emp[2]=45000;
  Emp[3]=19000;
  Emp[4]=50000;
  for(int i=0;i<=4;i++)
  {
     if(Emp[i]>20000)
     {
        cout<<    Em[i]    <<  "salary"    <<Emp[i]      <<  "is greter thsn 20000"  <<endl;
```

```
    }
    else{
       cout<<Em[i]<<   " and salary "  <<Emp[i]     <<  "This employees salary is <20000"   <<endl;
    }
  }

   return 0;
}
```

OUTPUT:

```
PS C:\Users\Admin\Desktop\PROGRAMING CODE\Day5assignment> g++ as5.cpp
PS C:\Users\Admin\Desktop\PROGRAMING CODE\Day5assignment> .\a.exe
Printing the five array employee by using for loop:
employeesno:0Employee name is :bob
employeesno:1Employee name is :tom
employeesno:2Employee name is :sam
employeesno:3Employee name is :emp1
employeesno:4Employee name is :emp2
bobsalary25000is greter thsn 20000
tomsalary30000is greter thsn 20000
samsalary45000is greter thsn 20000
emp1 and salary 19000This employees salary is <20000
emp2salary50000is greter thsn 20000
PS C:\Users\Admin\Desktop\PROGRAMING CODE\Day5assignment>
```

Problem STatement3

3->Create Date Class with Data Members day,month, year

3.1:

Create an object and initialize it using mutator methods and accesses it using accessor methods. Print the date.

3.2

Create two objects and initialize them using no-argument and parameterized constructor respectively. Print the date.

```
#include<iostream>
using namespace std;
class Date
{
  private:
  string day;          //Data members
  string month;
  int year;

  public:


  Date()//Parameterless constructor
  {
    day="sunday";
    month="jan";
    year=2021;
  }
  Date(string day,string month,int year)// parametrized constructor
  {
```

```
    this->day=day;
    this->month=month;
    this->year=year;
}
void display()          //Member functions
{
    cout<<day <<"/" <<month  <<" / " <<year<<endl;

}
int setDay(string day)   //geters
{
    this->day=day;;

}
void getDay()
{
    cout<<"Day :"<<day<<endl;
}
int setMonth(string month)       //Seters
{
    this->month=month;
}
void getMonth()
{
    cout<<"Month :"<<month<<endl;
}
int setYear(int year)
{
    this->year=year;
}
void getYear()
```

```
    {
        cout<<"Year :"<<year<<endl;

    }
};

int main(void)
{
    Date d1={"Monday","december",2000};
    d1.display();
    d1.setDay("ThusDay");
    d1.getDay();

    d1.setMonth("June");
    d1.getMonth();


    d1.setYear(2025);
    d1.getYear();
    return 0;
}
```

OUTPUT :

```
PS C:\Users\Admin\Desktop\PROGRAMING CODE\Day5assignment> .\a.exe
Monday/ december / 2000
Day :ThusDay
Month :June
Year :2025
PS C:\Users\Admin\Desktop\PROGRAMING CODE\Day5assignment> ----------
----------
```

Problem Statement 4:

->Create a java applicstion for the following.

Create a Customer class , with data members (all private : tight encapsulation)

name(String),email(String),age(int), creditLimit(double)

4.1 Supply a parameterized constructor to accept all details from user

4.2 Supply an argument less constructor to init default name to "Riya" , email to "riya@gmail.com",age=25,creditLimit=10000

(Must use constructor chaining)

4.3 Write a method , getDetails to return String form of customer name & credit limit only.

4.4 Supply getter & setter for creditLimit.

Naming convention : public void setCreditLimit(double limit) {...}

public double getCreditLimit(){...}

```
import java.util.Scanner;
public class customer
{
	private String name;
	private String gmail;
	private int age;
	private double creditlimit;
	public customer()
	{
		name="Riya";
		gmail="riya@gmail.com";
		age=25;
		creditlimit=10000;
```

```
}
public customer(String name,String gmail,int age,double creditlimit)
{
        this.name=name;
        this.gmail=gmail;
        this.age=age;
        this.creditlimit=creditlimit;
}
public void display()
{
        System.out.println(name+" "+gmail+" "+age+" "+creditlimit);
}
public void setDetails(String name,double creditlimit )
{

        this.name=name;
        this.creditlimit=creditlimit;
}
public void setCreditLimit(double creditlimit  )
{
        this.creditlimit=creditlimit;
}
public void getCreditLimit()
{
        System.out.println(creditlimit);
}
public void getDetails()
{
        System.out.println(name+" "+creditlimit);
}
```

```
	public static void main(String[] args)
	{
		Scanner sc=new Scanner(System.in);
		customer s1=new customer();
		customer s2=new customer("JOHN","permal.gmail.com",28,500.235);
		s2.setDetails("Shubham",45000);
		s2.getDetails();
		s2.display();



	}

}
```

OUTPUT:

```
Shubham 45000.0
Shubham permal.gmail.com 28 45000.0
```

4.5 Create a TestCustomer class . Use scanner to accept user i/ps.

Create 2 customers using 2 different constructors(4.1 : customer1 ,4.2 : customer2)

Display customer details of both customers.

Prompt user , for changing creditLimit of the customer2.

Display new credit limit on the console.

```
import java.util.Scanner;
public class Testcustomer
{
	private
	int Cusno;
	String name;
	double salary;



	public Testcustomer()
	{
		Cusno=100;
		name="SUMO";
		salary=10000;

	}
	public Testcustomer(int Cusno,String name,double salary)
	{
		this.Cusno=Cusno;
		this.name=name;
		this.salary=salary;

	}
	public void setName(String name)
	{
```

```
        this.name=name;
}
public void getName()
{
        System.out.println(name);
}
public void customerinfo(int Cusno,String name,double salary)
{
        this.Cusno=Cusno;
        this.name=name;
        this.salary=salary;
}
public void displaycustoinfo()
{
        System.out.println(Cusno+" "+name+""+salary);
}

public static void main(String[] args)
{
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter Rps :");

        int rps=sc.nextInt();
        System.out.println("Accepting rupess of customer :"+rps);
        //Testcustomer t1=new Testcustomer();

        Testcustomer t2=new Testcustomer(1,"Cm1",1.5000);
        t2.customerinfo(2,    "ABC",    50000.20);
        t2.displaycustoinfo();
        t2.setName("demo");
        t2.getName();
```

```
        }

}
```

OUTPUT:

```
Enter Rps :
80000
Accepting rupess of customer :80000
2 ABC50000.2
demo
```