**ASSIGNMENT 4.1**

**1.Write a java code with the class named ‘acad’ and a method ‘main’. Hard Code the program with two integers and print the sum of those two.**

**package** ACADGILDPACK;

**public** **class** ACAD {

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

// **TODO** Auto-generated method stub

**int** a = 15;

**int** b =26;

**int** c=a+b;

System.***out***.println("Result:"+c);

}

}

**2.Rewrite the above code, where, inputs are provided By the user at runtime and the output is printed.**

**package** ACADGILDPACK;

**import** java.io.\*;

**import** java.util.\*;

**public** **class** ACAD {

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

// **TODO** Auto-generated method stub

Scanner read = **new** Scanner(System.***in***);

System.***out***.println("Enter the first value:");

**int** a =Integer.*parseInt*(read.nextLine());

System.***out***.println("Enter the second value:");

**int** b =Integer.*parseInt*(read.nextLine());

**int** c=a+b;

System.***out***.println("Result:"+c);

read.close();

}

}

**3.Write a program with method name sum() that accepts two parameters from user and print the sum of two numbers. Output format should be as:**

**First number is:**

**Second number is:**

**Sum is:**

**package** ACADGILDPACK;

**import** java.io.\*;

**import** java.util.\*;

**public** **class** ACAD {

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

// **TODO** Auto-generated method stub

Scanner read = **new** Scanner(System.***in***);

System.***out***.println("Enter the first value:");

**int** a =Integer.*parseInt*(read.nextLine());

System.***out***.println("Enter the second value:");

**int** b =Integer.*parseInt*(read.nextLine());

**int** c=a+b;

System.***out***.println("First number is:"+a);

System.***out***.println("Second number is:"+b);

System.***out***.println("Sum is:"+c);

read.close();

}

}

**4.Write a program to accepts two numbers from stdin and find all the odd as well as even numbers present in between them.**

**package** ACADGILDPACK;

**import** java.io.\*;

**import** java.util.\*;

**public** **class** ACAD {

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

// **TODO** Auto-generated method stub

Scanner read = **new** Scanner(System.***in***);

System.***out***.println("Enter the first value:");

**int** a =Integer.*parseInt*(read.nextLine());

System.***out***.println("Enter the second value:");

**int** b =Integer.*parseInt*(read.nextLine());

**for**(**int** i = a+1;i<b;i++)

{

**if**(i%2==0) {

System.***out***.println("Even number is:"+i);

}**else**

{

System.***out***.println("Odd number is:"+i);

}

}

read.close();

}

}

**5.Joe is scared to go to school. When her dad asked the reason, joe said she is unable to complete the task given by her teacher. The task was to find the “first 10 multiples” of the number entered from stdin . Eg:**

**Input: 3**

**O/p:**

**3 x 1 = 3**

**3 x 2 = 6**

**.........**

**.........**

**.......**

**....**

**3 x 10 = 30**

**Help Joe in completing the task!**

**package** ACADGILDPACK;

**import** java.io.\*;

**import** java.util.\*;

**public** **class** ACAD {

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

// **TODO** Auto-generated method stub

Scanner read = **new** Scanner(System.***in***);

System.***out***.println("Enter the table number:");

**int** a =Integer.*parseInt*(read.nextLine());

**for**(**int** i =1;i<=10;i++)

{

System.***out***.println(a+" x "+i +" = "+a\*i);

}

read.close();

}

}

**6.Write a program consisting method sum() and demonstrate the concept of method overloading using this method.**

**package** ACADGILDPACK;

**import** java.io.\*;

**import** java.util.\*;

**public** **class** ACAD {

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

{

System.***out***.println("Result: "+(a+b));

}

**public** **static** **int** sum(**int** a,**int** b,**int** c) {

**return** (a+b+c);

}

**public** **static** **void** sum(**int** a ,**int** b , String res)

{

System.***out***.println(res+" : "+ (a+b));

}

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

// **TODO** Auto-generated method stub

Scanner read = **new** Scanner(System.***in***);

System.***out***.println("Enter the 1st number:");

**int** a =Integer.*parseInt*(read.nextLine());

System.***out***.println("Enter the 2nd number:");

**int** b =Integer.*parseInt*(read.nextLine());

System.***out***.println("Enter the 3rd number:");

**int** c =Integer.*parseInt*(read.nextLine());

*sum*(a,b);

System.***out***.println("Second sum output: "+*sum*(a,b,c));

*sum*(a,b,"Answer");

read.close();

}

}

**7.Can you overload a method with same return type.? Explain your answer with proper logic.**

**NO WE CANNOT OVERLOAD A METHOD WITH SAME RETURN TYPE.**

* **The rationale is that the return value alone is not sufficient for the compiler to figure out which function to call.**
* **The reason is that overloads in Java are only allowed for methods with different signatures.**
* **The return type is not part of the method signature, hence cannot be used to distinguish overloads**

**package** ACADGILDPACK;

**import** java.io.\*;

**import** java.util.\*;

**public** **class** ACAD {

**public** **static** **int** sum(**int** a,**int** b)

{

**return** (a+b);

}

**public** **static** **int** sum(**int** a,**int** b,**int** c) {

**return** (a+b+c);

}

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

// **TODO** Auto-generated method stub

Scanner read = **new** Scanner(System.***in***);

System.***out***.println("Enter the a value::");

**int** a =Integer.*parseInt*(read.nextLine());

System.***out***.println("Enter the b value:");

**int** b =Integer.*parseInt*(read.nextLine());

System.***out***.println("Enter the c value:");

**int** c =Integer.*parseInt*(read.nextLine());

System.***out***.println("First sum output: "+*sum*(a,b));

System.***out***.println("Second sum output: "+*sum*(a,b,c));

read.close();

}

}

**8.Write a program in java using Arrays, that sorts the element in descending order.**

**package** ACADGILDPACK;

**import** java.io.\*;

**import** java.util.\*;

**public** **class** ACAD {

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

// **TODO** Auto-generated method stub

Scanner read = **new** Scanner(System.***in***);

**int** temp=0;

**int** a[]=**new** **int**[] {15,2,26,3,4};

**int** n=a.length;

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

{

**for** (**int** j = i + 1; j < n; j++)

{

**if** (a[i] < a[j])

{

temp = a[i];

a[i] = a[j];

a[j] = temp;

}

}

}

System.***out***.print("Descending Order:");

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

{

System.***out***.print(a[i] + ",");

}

System.***out***.print(a[n - 1]);

read.close();

}

}