**EASY LEVEL**

**1. Write a function to Calculate the Sum of Odd & Even Numbers**

public class ass\_functions {

public static void main(String args[]) {

Scanner sc=new Scanner(System.in);

System.out.print("Enter lowerBound:\n");

int lb=sc.nextInt();

System.out.print("Enter upperBound:\n");

int ub=sc.nextInt();

int oSum=oddSum(lb,ub);

int eSum=evenSum(lb,ub);

System.out.print("Odd Sum:"+oSum+"\nEven Sum:"+eSum);

}

public static int oddSum(int lb,int ub) {

int sum=0;

for(int i=lb;i<=ub;i++) {

if(i%2!=0) {

sum+=i;

}

}

return sum;

}

public static int evenSum(int lb,int ub) {

int sum=0;

for(int i=lb;i<=ub;i++) {

if(i%2==0) {

sum+=i;

}

}

return sum;

}

}

**2.Write a function to find the prime numbers between 1 to 100.**

public class ass\_functions{

public static void main(String args[]) {

isPrime(1,100);

}

public static void isPrime(int l,int u) {

int c;

for(int i=l;i<=u;i++) {

c=0;

for(int j=1;j<=i;j++) {

if(i%j==0) {

c++;

}

}

if(c<=2) {

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

}

}

}

}

**3. Get the salary per month and hike from user and the write a java program to**

**calculate new salary with hike.**

public class ass\_functions{

public static void main(String args[]) {

Scanner sc=new Scanner(System.in);

System.out.print("Enter salary per month:\n");

double sal=sc.nextDouble();

System.out.print("Enter hike:\n");

double hike=sc.nextDouble();

double newSal=calculateSal(sal,hike);

System.out.print(newSal);

}

public static double calculateSal(double sal,double hike){

return sal+(sal\*(hike/100));

}

}

**4. A person is elligible to vote if his/her age is greater than or equal to 18. Define a**

**method to find out if he/she is elligible to vote**

public class ass\_functions{

public static void main(String args[]) {

Scanner sc=new Scanner(System.in);

System.out.print("Enter your age:\n");

int age=sc.nextInt();

isEligible(age);

}

public static void isEligible(int age){

if(age>=18) {

System.out.print("You are eligible:\n");

}

else {

System.out.print("You are not eligible:\n");

}

}

}

**MEDIUM:**

1. **Write a C# program to find the sums of the running odd numbers and even numbers from a given lowerbound to an upperbound. Also compute their absolute difference.**

public class ass\_functions{

public static void main(String args[]) {

Scanner sc=new Scanner(System.in);

System.out.print("Enter lowerBound:\n");

int lb=sc.nextInt();

System.out.print("Enter upperBound:\n");

int ub=sc.nextInt();

int oSum=oddSum(lb,ub);

int eSum=evenSum(lb,ub);

System.out.print(Math.abs(oSum-eSum));

}

public static int oddSum(int lb,int ub) {

int sum=0;

for(int i=lb;i<=ub;i++) {

if(i%2!=0) {

sum+=i;

}

}

return sum;

}

public static int evenSum(int lb,int ub) {

int sum=0;

for(int i=lb;i<=ub;i++) {

if(i%2==0) {

sum+=i;

}

}

return sum;

}

}

1. **prime number**

public class ass\_functions{

public static void main(String args[]) {

Scanner sc=new Scanner(System.in);

System.out.print("Enter lowerBound:\n");

int lb=sc.nextInt();

System.out.print("Enter upperBound:\n");

int ub=sc.nextInt();

isPrime(lb,ub);

}

public static void isPrime(int l,int u) {

int c;

for(int i=l;i<=u;i++) {

c=0;

for(int j=1;j<=i;j++) {

if(i%j==0) {

c++;

}

}

if(c<=2) {

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

}

}

}

}

**4. Write a function to find whether the blood donor is eligible or not for donating blood. The rules laid down are as follows. a. Age should be above 18 yrs but not more than 55 yrs. b. Weight should be more than 45kg.**

public class ass\_functions{

public static void isEligible(int age,float weight) {

if(age>18 && age<55) {

if(weight>45) {

System.out.print("You are eligible to donat blood");

}

else {

System.out.print("you are not eligible bcoz you are under weight");

}

}

else {

System.out.print("You are not eligible");

}

}

public static void main(String args[]) {

Scanner sc=new Scanner(System.in);

System.out.print("Enter your age:\n");

int age=sc.nextInt();

System.out.print("Enter your weight:\n");

float wei=sc.nextFloat();

isEligible(age,wei);

}

}

**HARD:**

**1)XYZ Technologies is in the process of increment the salary of the employees. This increment is done based on their salary and their performance appraisal rating.**

public class ass\_functions{

public static void incrementSal(int sal,float rating) {

if(sal<=0 || rating <=0 || rating>10) {

System.out.print("Invalid inputs:\n");

}

else if(rating>=1 && rating<=4) {

double incre=sal\*0.10;

System.out.print("Incremen salary: "+(sal+incre));

}

else if(rating>=4.1 && rating<=7) {

double incre=sal\*0.25;

System.out.print("Incremen salary: "+(sal+incre));

}

else if(rating>=7.1 && rating<=10) {

double incre=sal\*0.30;

System.out.print("Incremen salary: "+(sal+incre));

}

}

public static void main(String args[]) {

Scanner sc=new Scanner(System.in);

System.out.print("Enter the Employee salary:\n");

int sal=sc.nextInt();

System.out.print("Enter the appraisal rating:\n");

float rating=sc.nextFloat();

incrementSal(sal,rating);

}

**}**

1. **2. XYZ college wants to recognize the department which has succeeded in getting the maximum number of placements for this academic year. The departments that have participated in the recruitment drive are CS, EC, ME. Help the college to find the department getting maximum placements. Check for all the possible output given in the sample snapshot.**

public class ass\_functions{

public static void checkMax(int cs,int ec,int me) {

if(cs<0 || ec<0 || me<0) {

System.out.print("Invalid input\n");

}

else if(cs==ec && ec==me) {

System.out.print("None of the department has got the highest placement");

}

else if(cs>ec && cs>me) {

System.out.print("CS has highest placemSent");

}

else if(ec>me && ec>cs) {

System.out.print("EC has highest placemSent");

}

else if(me>cs && me>ec){

System.out.print("ME has highest placemSent");

}

else if(cs==ec && cs>me) {

System.out.print("CS ,EC has highest placement");

}

else if(ec==me && ec>cs) {

System.out.print("EC ,ME has highest placement");

}

else if(cs==me && cs>ec){

System.out.print("CS ,ME has highest placement");

}

}

}

public static void main(String args[]) {

Scanner sc=new Scanner(System.in);

System.out.print("Enter the number of students places in CS:\n");

int cs=sc.nextInt();

System.out.print("Enter the number of students places in EC:\n");

int ec=sc.nextInt();

System.out.print("Enter the number of students places in ME:\n");

int me=sc.nextInt();

checkMax(cs,ec,me);

}