//Java Program to demonstate the use of if statement.

```
public class IfExample {
public static void main(String[] args) {
  //defining an 'age' variable
  int age=20;
  //checking the age
  if(age>18){
    System.out.print("Age is greater than 18");
//A Java Program to demonstrate the use of if-else statement.
//It is a program of odd and even number.
public class IfElseExample {
public static void main(String[] args) {
  //defining a variable
  int number=13;
  //Check if the number is divisible by 2 or not
  if(number\% 2==0){
    System.out.println("even number");
  }else{
    System.out.println("odd number");
  //A year is leap, if it is divisible by 4 and 400. But, not by 100.
public class LeapYearExample {
public static void main(String[] args) {
  int year=2020;
  if(((year \% 4 == 0) \&\& (year \% 100 != 0)) || (year \% 400 == 0))
    System.out.println("LEAP YEAR");
  }
  else{
    System.out.println("COMMON YEAR");
```

```
//Java Program to demonstrate the use of If else-if ladder.
//It is a program of grading system for fail, D grade, C grade, B gra
de, A grade and A+.
public class IfElselfExample {
public static void main(String[] args) {
  int marks=65;
  if(marks < 50){
     System.out.println("fail");
  }
  else if(marks>=50 \&\& marks<60){
     System.out.println("D grade");
  }
  else if(marks>=60 \&\& marks<70){
    System.out.println("C grade");
  else if(marks>=70 && marks<80){
     System.out.println("B grade");
  else if(marks>=80 \&\& marks<90){
     System.out.println("A grade");
  }else if(marks>=90 && marks<100){
     System.out.println("A+ grade");
  }else{
     System.out.println("Invalid!");
  } } }
//Java Program to demonstrate the use of Nested If Statement.
public class JavaNestedIfExample {
public static void main(String[] args) {
  //Creating two variables for age and weight
  int age=20;
  int weight=80;
  //applying condition on age and weight
  if(age > = 18){
    if(weight>50){
       System.out.println("You are eligible to donate blood");
    } }}
```

```
//Java Program to demonstrate the use of Nested If Statement.
public class JavaNestedIfExample2 {
public static void main(String[] args) {
  //Creating two variables for age and weight
  int age=25;
  int weight=48;
  //applying condition on age and weight
  if(age > = 18){
     if(weight>50){
       System.out.println("You are eligible to donate blood");
     } else{
       System.out.println("You are not eligible to donate blood");
     }
  } else{
   System.out.println("Age must be greater than 18");
  }
} }
//Java Program to demonstrate the use of switch Statement
public class SwitchVowelExample {
public static void main(String[] args) {
  char ch='O';
  switch(ch)
     case 'a':
       System.out.println("Vowel");
       break:
     case 'e':
       System.out.println("Vowel");
       break;
     case 'i':
       System.out.println("Vowel");
       break;
     case 'o':
       System.out.println("Vowel");
       break;
```

```
System.out.println("Vowel");
       break:
     case 'A':
       System.out.println("Vowel");
       break;
     case 'E':
       System.out.println("Vowel");
       break:
    case 'l':
       System.out.println("Vowel");
       break;
     case 'O':
       System.out.println("Vowel");
       break:
    case 'U':
       System.out.println("Vowel");
       break:
     default:
       System.out.println("Consonant");
  }
//Java Program to demonstrate the use of while Statement
class PalindromeExample{
public static void main(String args[]){
 int r,sum=0,temp;
 int n=454;//It is the number variable to be checked for palindro
me
 temp=n;
 while(n>0){
 r=n%10; //getting remainder
 sum=(sum*10)+r;
 n=n/10;
 }
```

case 'u':

```
if(temp==sum)
 System.out.println("palindrome number ");
 else
 System.out.println("not palindrome");
//Java Program to print a number
public class WhileExample {
public static void main(String[] args) {
  int i=1;
  \mathbf{while}(i < = 10)\{
     System.out.println(i);
  i++;
  } } }
//Java Program to demonstrate the use of do while Statement
public class DoWhileExample {
public static void main(String[] args) {
  int i=1;
  do{
     System.out.println(i);
  i++;
  }while(i < = 10);
```