Palindrome- String

class Scratch {  
 String reverse="";  
 void palindrome(String s){  
 for (int i = s.length()-1; i >=0 ; i--) {  
 reverse = reverse + s.charAt(i);  
 }  
 if(s.equals(reverse)){  
 System.*out*.println("It is a Palindrome");  
 }  
 else {  
 System.*out*.println("Not a Palindrome");  
 }  
 }  
 public static void main(String[] args) {  
 Scratch obj = new Scratch();  
 obj.palindrome("2002");  
 }  
}

Armstrong No.

class Scratch{  
 boolean armstrong(int n){  
 int temp;  
 int digits = 0;  
 int last = 0;  
 int sum = 0;  
 temp = n;  
 while (temp>0){  
 temp = temp/10;  
 digits++;  
 }  
 temp = n;  
 while(temp>0){  
 last = temp%10;  
 sum+= (Math.*pow*(last,digits));  
 temp = temp/10;  
 }  
 if(n==sum)  
 return true;  
 else return false;  
 }  
 public static void main(String[] args) {  
 Scratch obj = new Scratch();  
 System.*out*.println(obj.armstrong(152));  
 }  
}

Linked List insertion from start

class LL {  
 class Node{  
 int data;  
 Node next;  
 }  
 Node head;  
  
 void insertFirst(int data){  
 Node node = new Node();  
 node.data = data;  
 node.next = null;  
 node.next =head;  
 head = node;  
 }  
  
 void show(){  
 Node temp = head;  
 while(temp!=null){  
 System.*out*.print(" "+temp.data);  
 temp = temp.next;  
 }  
 }  
  
 public static void main(String[] args) {  
 LL list = new LL();  
 list.insertFirst(5);  
 list.insertFirst(4);  
 list.insertFirst(3);  
 list.insertFirst(2);  
 list.insertFirst(1);  
 list.show();  
 }  
}

Reverse a string without built-in function

import java.util.Scanner;  
  
class Scratch {  
 public static void main(String[] args) {  
 Scanner obj = new Scanner(System.*in*);  
 System.*out*.println("Enter the string to be reversed-");  
 String s = obj.next();  
 String reverse = "";  
 for (int i = s.length()-1; i>=0 ; i--) {  
 reverse = reverse + s.charAt(i);  
 }  
 System.*out*.println(reverse);  
 }  
}

Odd- Even

import java.util.Scanner;  
  
class Scratch {  
 public static void main(String[] args) {  
 Scanner obj = new Scanner(System.*in*);  
 System.*out*.println("Enter the number-");  
 int n = obj.nextInt();  
 if(n%2==0){  
 System.*out*.println("Even");  
 }  
 else {  
 System.*out*.println("Odd");  
 }  
 }  
}

Positive-Negative

import java.util.Scanner;  
  
class Scratch {  
 public static void main(String[] args) {  
 Scanner obj = new Scanner(System.*in*);  
 System.*out*.println("Enter the number-");  
 int n = obj.nextInt();  
 if(n>=0){  
 System.*out*.println("Positive");  
 }  
 else {  
 System.*out*.println("Negative");  
 }  
 }  
}

Divisible by n or not

import java.util.Scanner;  
  
class Scratch {  
 public static void main(String[] args) {  
 Scanner obj = new Scanner(System.*in*);  
 System.*out*.println("Enter the number-");  
 int num = obj.nextInt();  
 System.*out*.println("Enter the divisor-");  
 int n = obj.nextInt();  
 if(num%n==0){  
 System.*out*.println("Divisible");  
 }  
 else {  
 System.*out*.println("Not Divisible");  
 }  
 }  
}

Swap two numbers

import java.util.Scanner;  
  
class Scratch {  
 public static void main(String[] args) {  
 Scanner obj = new Scanner(System.*in*);  
 System.*out*.println("Enter the number M-");  
 int m = obj.nextInt();  
 System.*out*.println("Enter the number N-");  
 int n = obj.nextInt();  
 int temp;  
 temp = m;  
 m = n;  
 n = temp;  
 System.*out*.println("After Swapping-");  
 System.*out*.println("M-"+m);  
 System.*out*.println("N-"+n);  
 }  
}

Check two numbers if they are equal or not

import java.util.Scanner;  
  
class Scratch {  
 public static void main(String[] args) {  
 Scanner obj = new Scanner(System.*in*);  
 System.*out*.println("Enter the number n1-");  
 int n1 = obj.nextInt();  
 System.*out*.println("Enter the number n2-");  
 int n2 = obj.nextInt();  
 if(n1==n2){  
 System.*out*.println("Equal");  
 }  
 else {  
 System.*out*.println("Not Equal");  
 }  
 }  
}

Check greatest number from the given 3 numbers

import java.util.Scanner;  
  
class Scratch {  
 public static void main(String[] args) {  
 Scanner obj = new Scanner(System.*in*);  
 System.*out*.println("Enter the number n1-");  
 int n1 = obj.nextInt();  
 System.*out*.println("Enter the number n2-");  
 int n2 = obj.nextInt();  
 System.*out*.println("Enter the number n3-");  
 int n3 = obj.nextInt();  
 if(n1<n2){  
 System.*out*.println("N2 is greatest");  
 } else if (n2<n3) {  
 System.*out*.println("N3 is greatest");  
 } else if (n3<n1) {  
 System.*out*.println("N1 is greatest");  
 }  
 }  
}

Leap Year or not

import java.util.Scanner;  
  
class Scratch {  
 public static void main(String[] args) {  
 Scanner obj = new Scanner(System.*in*);  
 System.*out*.println("Enter the year-");  
 int y = obj.nextInt();  
 if(y%4==0){  
 if(y%100==0){  
 if(y%400==0){  
 System.*out*.println("Leap Year");  
 }  
 else {  
 System.*out*.println("Not a leap year");  
 }  
 }  
 else {  
 System.*out*.println("Leap Year");  
 }  
 }  
 else {  
 System.*out*.println("Not a leap year");  
 }  
 }  
}

Print last two digits of the year

import java.util.Scanner;  
  
class Scratch {  
 public static void main(String[] args) {  
 Scanner obj = new Scanner(System.*in*);  
 System.*out*.println("Enter the year-");  
 int y = obj.nextInt();  
 int year;  
 year = y%100;  
 if(year<10){  
 System.*out*.println("0"+year);  
 }  
 else {  
 System.*out*.println(year);  
 }  
 }  
}

ATM Machine

import java.util.Scanner;  
class Scratch  
{  
 public static void main(String args[] )  
 {  
 int bal = 100000, withdraw, deposit;  
 Scanner sc = new Scanner(System.*in*);  
 while(true)  
 {  
 System.*out*.println("Automated Teller Machine");  
 System.*out*.println("Choose 1 for Withdraw");  
 System.*out*.println("Choose 2 for Deposit");  
 System.*out*.println("Choose 3 for Check Balance");  
 System.*out*.println("Choose 4 for EXIT");  
 System.*out*.print("Choose the operation you want to perform:");  
  
 int choice = sc.nextInt();  
 switch (choice) {  
 case 1 -> {  
 System.*out*.print("Enter money to be withdrawn:");  
 withdraw = sc.nextInt();  
 if (bal >= withdraw) {  
 bal = bal - withdraw;  
 System.*out*.println("Please collect your money");  
 } else {  
 System.*out*.println("Insufficient Balance");  
 }  
 System.*out*.println("");  
 }  
 case 2 -> {  
 System.*out*.print("Enter money to be deposited:");  
 deposit = sc.nextInt();  
 bal = bal + deposit;  
 System.*out*.println("Your Money has been successfully deposited");  
 System.*out*.println("");  
 }  
 case 3 -> {  
 System.*out*.println("Balance : " + bal);  
 System.*out*.println("");  
 }  
 case 4 ->  
 System.*exit*(0);  
 }  
 }  
 }  
}