

Assignment-1

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Roll-Mca/10030/19

P-1 Write a Program to whether a number is even or odd.

//EvenOddTest class

```
import java.util.Scanner;
```

```
public class EvenOddTest {
```

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

```
    {
```

```
        Scanner sc=new Scanner(System.in);
```

```
        System.out.print("Enter The Number: ");
```

```
        int num=sc.nextInt();
```

```
        EvenOdd e=new EvenOdd();
```

```
        e.setNumber(num);
```

```
        e.checkEvenOdd();
```

```
        System.out.println("Number is : "+e.getNumber());
```

```
        if(e.getEvenOddN()==true)
```

```
            System.out.println("It is a Even Number");
```

```
        else
```

```
            System.out.println("It is is a Odd NUmber");
```

```
    }
```

```
}
```

//EvenOdd Class

class EvenOdd{

```
private int num;
private boolean evenOdd;
public void setNumber(int num) {
    this.num=num;

}
public int getNumber()
{
    return num;
}
public boolean getEvenOddN()
{
    return evenOdd;
}
public void checkEvenOdd()
{
    if(num%2==0)
    {
        this.evenOdd=true;
    }
    else {
        this.evenOdd=false;
    }
}
}
```

Output:

Output - JAVA_LAB_1 (ru... x

init:
Deleting: G:\MCA_4Th_Sem\MCA 3RD SEM LAB\JAVA LAB\JAVA_LAB_1\build\build-jar.properties
deps-jar:
Updating property file: G:\MCA_4Th_Sem\MCA 3RD SEM LAB\JAVA LAB\JAVA_LAB_1\build\build-jar.properties
Compiling 1 source file to G:\MCA_4Th_Sem\MCA 3RD SEM LAB\JAVA LAB\JAVA_LAB_1\build\classes
compile:
run:
Enter The Number: 20
Number is : 20
It is a Even Number
BUILD SUCCESSFUL (total time: 6 seconds)

Output - JAVA_LAB_1 (ru... x

ant -f "G:\MCA_4Th_Sem\MCA 3RD SEM LAB\JAVA LAB\JAVA_LAB_1" -Dnb.internal.action.name=run run
init:
Deleting: G:\MCA_4Th_Sem\MCA 3RD SEM LAB\JAVA LAB\JAVA_LAB_1\build\build-jar.properties
deps-jar:
Updating property file: G:\MCA_4Th_Sem\MCA 3RD SEM LAB\JAVA LAB\JAVA_LAB_1\build\build-jar.properties
compile:
run:
Enter The Number: 899999
Number is : 899999
It is is a Odd NUmber
BUILD SUCCESSFUL (total time: 8 seconds)

P-2 Write a program to maintain data about employees of a company.

```
class Employee {  
    private int empNo;  
    private String empName;  
    private int empSal;  
    public void setData(int empNo,String empName,int empSal)  
    {  
        this.empName=empName;  
        this.empNo=empNo;  
        this.empSal=empSal;  
    }  
    public int getEmpNo()  
    {  
        return empNo;  
    }  
    public String getEmpName(){  
        return empName;  
    }  
    public int getEmpSal()  
    {  
        return empSal;  
    }  
}
```

```
import java.util.Scanner;
```

```
public class EmployeeData {
```

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

```
    {
```

```
        Scanner sc=new Scanner(System.in);
```

```
        Employee e1=new Employee();
```

```
        System.out.print("Enter The 1st Employee Number: ");
```

```
        int empNo=sc.nextInt();
```

```
        System.out.print("Enter The 1st Employee Name: ");
```

```
        sc.nextLine();
```

```
        String empname=sc.nextLine();
```

```
        System.out.print("Enter The 1st Employee Salary: ");
```

```
        int empSal=sc.nextInt();
```

```
        e1.setData(empNo, empname, empSal);
```

```
        Employee e2=new Employee();
```

```
        System.out.print("Enter The 2nd Employee Number: ");
```

```
        empNo=sc.nextInt();
```

```
        System.out.print("Enter The 2nd Employee Name: ");
```

```
        sc.nextLine();empname=sc.nextLine();
```

```
        System.out.print("Enter The 2nd Employee Salary: ");
```

```
        empSal=sc.nextInt();
```

```
        e2.setData(empNo, empname, empSal);
```

```
Employee e3=new Employee();
```

```
System.out.print("Enter The 3rd Employee Number: ");
```

```
empNo=sc.nextInt();
```

```
System.out.print("Enter The 3rd Employee Name: ");
```

```
sc.nextLine();empname=sc.nextLine();
```

```
System.out.print("Enter The 3rd Employee Salary: ");
```

```
empSal=sc.nextInt();
```

```
e3.setData(empNo, empname, empSal);
```

```
Employee e4=new Employee();
```

```
System.out.print("Enter The 4th Employee Number: ");
```

```
empNo=sc.nextInt();
```

```
System.out.print("Enter The 4th Employee Name: ");
```

```
sc.nextLine();empname=sc.nextLine();
```

```
System.out.print("Enter The 4th Employee Salary: ");
```

```
empSal=sc.nextInt();
```

```
e4.setData(empNo, empname, empSal);
```

```
Employee e5=new Employee();
```

```
System.out.print("Enter The 5th Employee Number: ");
```

```
empNo=sc.nextInt();
```

```
System.out.print("Enter The 5th Employee Name: ");
```

```
sc.nextLine(); empname=sc.nextLine();
```

```
System.out.print("Enter The 5th Employee Salary: ");
```

```
empSal=sc.nextInt();
```

```
e5.setData(empNo, empname, empSal);

System.out.println("\nFirst Employee Number is
"+e1.getEmpNo()+"Employee Name is "+e1.getEmpName()+" and Salary is
"+e1.getEmpSal());

System.out.println("2nd Employee Number is
"+e2.getEmpNo()+"Employee Name is "+e2.getEmpName()+" and Salary is
"+e2.getEmpSal());

System.out.println("3rd Employee Number is
"+e3.getEmpNo()+"Employee Name is "+e3.getEmpName()+" and Salary is
"+e3.getEmpSal());

System.out.println("4th Employee Number is
"+e4.getEmpNo()+"Employee Name is "+e4.getEmpName()+" and Salary is
"+e4.getEmpSal());

System.out.println("5th Employee Number is
"+e5.getEmpNo()+"Employee Name is "+e5.getEmpName()+" and Salary is
"+e5.getEmpSal());

}

}
```

```
Outp... X
#5 X JAVA_LAB_1 (run-single) #6 X JAVA_LAB_1 (run-single) #7 X JAVA_LAB_1 (run-single) #8 X JAVA_LAB_1 (run-single) #9 X JAVA_LAB_1 (run-single) #10 X
ant -f "G:\MCA_4Th_Sem\MCA 3RD SEM LAB\JAVA LAB\JAVA_LAB_1" -Dnb.internal.action.name=run.single -Djavac.includes=EmployeeData.java -Drun.class=Employee
init:
Deleting: G:\MCA_4Th_Sem\MCA 3RD SEM LAB\JAVA LAB\JAVA_LAB_1\build\build-jar.properties
deps-jar:
Updating property file: G:\MCA_4Th_Sem\MCA 3RD SEM LAB\JAVA LAB\JAVA_LAB_1\build\build-jar.properties
Compiling 1 source file to G:\MCA_4Th_Sem\MCA 3RD SEM LAB\JAVA LAB\JAVA_LAB_1\build\classes
compile-single:
run-single:
Enter The 1st Employee Number: 101
Enter The 1st Employee Name: Abcd
Enter The 1st Employee Salary: 1
Enter The 2nd Employee Number: 102
Enter The 2nd Employee Name: Bode
Enter The 2nd Employee Salary: 10
Enter The 3rd Employee Number: 103
Enter The 3rd Employee Name: Cdef
Enter The 3rd Employee Salary: 100
Enter The 4th Employee Number: 104
Enter The 4th Employee Name: Defg
Enter The 4th Employee Salary: 1000
Enter The 5th Employee Number: 105
Enter The 5th Employee Name: Efgh
Enter The 5th Employee Salary: 10000

First Employee Number is 101Employee Name is Abcd and Salary is 1
2nd Employee Number is 102Employee Name is Bode and Salary is 10
3rd Employee Number is 103Employee Name is Cdef and Salary is 100
4th Employee Number is 104Employee Name is Defg and Salary is 1000
5th Employee Number is 105Employee Name is Efgh and Salary is 10000
BUILD SUCCESSFUL (total time: 1 minute 8 seconds)
```

P-3 Write a program to maintain data about Books in library using array of Objects.


```
package Ques_3_updated;
```

```
class Book {
```

```
    private int bookNo;
```

```
    private String title;
```

```
    private String publication;
```

```
    private String author;
```

```
    private float price;
```

```
    public void setData(int bookNo,String title,String author,String  
publication,float price)
```

```
    {
```

```
        this.bookNo=bookNo;
```

```
        this.title=title;
```

```
        this.publication=publication;
```

```
        this.author=author;
```

```
        this.price=price;
```

```
    }
```

```
    public int getBookNo()
```

```
    {
```

```
        return bookNo;
```

```
    }
```

```
    public String getTitle()
```

```
{  
    return title;  
}
```

```
public String getPublication()  
{  
    return publication;  
}
```

```
public String getAuthor()  
{  
    return author;  
}
```

```
public float getPrice()  
{  
    return price;  
}
```

```
}
```

```
package Ques_3_updated;
```

```
import java.util.Scanner;
```

```
class BookDetails {  
    private Book [] book=new Book[5];  
  
    public void setBooks()  
    {  
        System.out.println("Enter Book Details : ");  
        Scanner sc=new Scanner(System.in);  
        for(int i=0;i<5;i++)  
        {  
            book[i]=new Book();  
            System.out.println("Enter Book Number ");  
            int bookNo=sc.nextInt();  
            System.out.println("Enter Book Price ");  
            float price=sc.nextFloat();  
            System.out.println("Enter Book Title ");  
            sc.nextLine();  
            String title=sc.nextLine();  
  
            System.out.println("Enter Author ");  
            sc.nextLine();  
            String author=sc.nextLine();  
  
            System.out.println("Enter Book Publication ");  
  
            String publication=sc.nextLine();  
        }  
    }  
}
```

```
book[i].setData(bookNo,title,author,publication, price);
```

```
System.out.println("\n*****  
*****\n");
```

```
}
```

```
}
```

```
public void printBooks()
```

```
{
```

```
    System.out.println("Book Details : ");
```

```
    for(int i=0;i<5;i++)
```

```
    {
```

```
System.out.println("\n*****  
*****\n");
```

```
        System.out.println((i+1)+"th BookNo is : "+book[i].getBookNo()+"\nBook  
Title : "+book[i].getTitle()+"\nBook Publication :  
"+book[i].getPublication()+"\nBook Author : "+book[i].getAuthor()+"\nBook  
Price : "+book[i].getPrice());
```

```
System.out.println("\n*****  
*****\n");
```

```
}
```

```
}
```

```
public void searchBookByTitle(String title)
```

```
{
```

```
    int f=0;
```

```
    System.out.println("\n Search Book By Title in Process ");
```

```
    for(int i=0;i<5;i++)
```

```

{System.out.println("\n*****
*****\n");

    if(book[i].getTitle()==title)

    {

        System.out.println((i+1)+"th BookNo is :
"+book[i].getBookNo()+"\nBook Title : "+book[i].getTitle()+"\nBook
Publication : "+book[i].getPublication()+"\nBook Author :
"+book[i].getAuthor()+"\nBook Price : "+book[i].getPrice());

        f=1;

    }

}

if(f==0)

{

    System.out.println("Book With this Title Does Not Exist");

}

}

```

```

public void searchBookByAuthor(String author)

```

```

{

    int f=0;

    System.out.println("\n Search Book By Author in Process ");

    for(int i=0;i<5;i++)

{System.out.println("\n*****
*****\n");

    if(book[i].getAuthor()==author)

    {

```

```

        System.out.println((i+1)+"th BookNo is :
"+book[i].getBookNo()+"\nBook Title : "+book[i].getTitle()+"\nBook
Publication : "+book[i].getPublication()+"\nBook Author :
"+book[i].getAuthor()+"\nBook Price : "+book[i].getPrice());

        f=1;

        break;

    }

}

if(f==0)

{

    System.out.println("Books of given Author Does Not Exist");

}

}

}

```

```

package Ques_3_updated;

```

```

import java.util.Scanner;

```

```

public class BookData {

    public static void main(String args[])

    {

        BookDetails bd=new BookDetails();

        bd.setBooks();

        bd.printBooks();

        Scanner sc=new Scanner(System.in);

        System.out.println("Enter the title for Searching bookDetailsByTitle ");
    }
}

```

```
        sc.nextLine();String title=sc.nextLine();
        bd.searchBookByTitle(title);
        System.out.println("Enter the title for Searching bookDetailsByTitle ");
        sc.nextLine();String author=sc.nextLine();
        bd.searchBookByAuthor(author);

    }
}
```

Output:

```
Outp... x
x JAVA_LAB_1 (run-single) #12 x JAVA_LAB_1 (run-single) #13 x JAVA_LAB_1 (run-single) #14 x JAVA_LAB_1 (run-single) #15 x JAVA_LAB_1 (run-single) #16 x
init:
ant -f "G:\MCA_4Th_Sem\MCA 3RD SEM LAB\JAVA LAB\JAVA_LAB_1" -Dnb.internal.action.name=run.single -Djavac.includes=Ques_3_updated/BookData.java -Drun.c
Deleting: G:\MCA_4Th_Sem\MCA 3RD SEM LAB\JAVA LAB\JAVA_LAB_1\build\build-jar.properties
deps-jar:
Updating property file: G:\MCA_4Th_Sem\MCA 3RD SEM LAB\JAVA LAB\JAVA_LAB_1\build\build-jar.properties
Compiling 1 source file to G:\MCA_4Th_Sem\MCA 3RD SEM LAB\JAVA LAB\JAVA_LAB_1\build\classes
compile-single:
run-single:
Enter Book Details :
Enter Book Number
101
Enter Book Price
1000
Enter Book Title
Reach Dad V/S Poor Dad
Enter Author
Rahul Gupta

Enter Book Publication
R&D Publication

*****

Enter Book Number
102
Enter Book Price
300
Enter Book Title
xyz
Enter Author
abc

Enter Book Publication
cd publication
```


Outp... x

× JAVA_LAB_1 (run-single) #12 × JAVA_LAB_1 (run-single) #13 × JAVA_LAB_1 (run-single) #14 × JAVA_LAB_1 (run-single) #15 × JAVA_LAB_1 (run-single) #16 ×

▶

▶

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🔍

```
cd publication

*****

Enter Book Number
1063
Enter Book Price
200
Enter Book Title
cvh
Enter Author
xty

Enter Book Publication
gyg publication

*****

Enter Book Number
1025
Enter Book Price
150
Enter Book Title
hdcuhgiu
Enter Author
huifvi
khiufviu
Enter Book Publication
bbuyu

*****

Enter Book Number
58
Enter Book Price
...
```

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▶

JAVA_LAB_1 (run-single) #15 | running... | (14 more...) | 42:113 | JWS

```
Outp... x
x JAVA_LAB_1 (run-single) #12 x JAVA_LAB_1 (run-single) #13 x JAVA_LAB_1 (run-single) #14 x JAVA_LAB_1 (run-single) #15 x JAVA_LAB_1 (run-single) #16 x
58
Enter Book Price
20
Enter Book Title
yuuyvgy
Enter Author
uy

Enter Book Publication
yugyug

*****

Book Details :

*****

1th BookNo is : 101
Book Title : Reach Dad V/S Poor Dad
Book Publication : R&D Publication
Book Author :
Book Price : 1000.0

*****

*****

2th BookNo is : 102
Book Title : xyz
Book Publication : cd publication
Book Author :
Book Price : 300.0

*****

*****
```

```
Outp... x
x JAVA_LAB_1 (run-single) #12 x JAVA_LAB_1 (run-single) #13 x JAVA_LAB_1 (run-single) #14 x JAVA_LAB_1 (run-single) #15 x JAVA_LAB_1 (run-single) #16 x
*****

3th BookNo is : 1063
Book Title : cvh
Book Publication : gyg publication
Book Author :
Book Price : 200.0

*****

*****

4th BookNo is : 1025
Book Title : hdcuhgiu
Book Publication : bbuyu
Book Author : khiufviu
Book Price : 150.0

*****

*****

5th BookNo is : 58
Book Title : yuuyvgy
Book Publication : yugyug
Book Author :
Book Price : 20.0

*****

Enter the title for Searching bookDetailsByTitle
Tum Pagal Nahi ho Tum .... ho
```

Enter the title for Searching bookDetailsByTitle
Tum Pagal Nahi ho Tum ho

Search Book By Title in Process

Book With this Title Does Not Exist
Enter the title for Searching bookDetailsByTitle
Rahul Gupta

Search Book By Author in Process

1th BookNo is : 101
Book Title : Reach Dad V/S Poor Dad
Book Publication : R&D Publication
Book Author :
Book Price : 1000.0

.....

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