

## Week 5-Lab 3 Program

⇒ Java program to create n book objects

```
import java.util.*;
```

```
class Book {
```

```
    String name;
```

```
    String author;
```

```
    int price;
```

```
    int num-pages;
```

```
    Book ()
```

```
    {}
```

```
Book (String name, String author, int price, int num-page)
```

```
{
```

```
    this.name = name;
```

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

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

```
    this.num-pages = num-pages;
```

```
}
```

```
void accept ()
```

```
{
```

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

```
System.out.println ("Enter the name of the book");
```

```
name = s.next();
```

```
System.out.println ("Enter the author of the book");
```

```
author = s.next();
```

```
System.out.println ("Enter the price of the book");
price = s.nextInt();
System.out.println ("Enter the number of pages of the
book");
numPages = s.nextInt();
```

```
}
```

```
public String toString()
```

```
{ return ("Name: " + name + "\n" + "Author: " + author + "\n" +
"Price: " + price + "\n" + "Number of pages: " + numPages);
```

```
}
```

```
}
```

```
class BookMain
```

```
{ public static void main (String ss [])
```

```
{ Scanner a = new Scanner (System.in);
```

```
Book b1 = new Book ("Heights", "Anne", 299, 345);
```

```
System.out.println ("Sample input: \n" + b1);
```

```
System.out.println ("Enter the number of books");
```

```
int n = a.nextInt();
```

```
Book b [] = new Book [n];
```

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

```
{ b[i] = new Book ();
```

```
System.out.println ("Enter the details of " + (i+1) + " book");
```

```
b[i].accept ();
```

```
}
```

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

```
{ System.out.println ("Details of book " + (i+1));
```

```
System.out.println (b[i]);
```

```
}
```

```
}
```

```
}
```

## Extra Programs:

1) CODE:

```
import java.util.*;  
class Employee  
{  
    String empid;  
    String empname;  
    double emphours;  
    double empbasic;  
    double emphra;  
    double empda;  
    double empit;  
    double empgross;
```

void accept()

```
{  
    Scanner s = new Scanner (System.in);  
    System.out.println ("Enter employee details :");  
    System.out.println ("Enter employee id :");  
    empid = s.next();  
    System.out.println ("Enter employee name :");  
    empname = s.next();  
    System.out.println ("Enter number of hours :");  
    emphours = s.nextDouble();  
    System.out.println ("Enter basic salary :");  
    empbasic = s.nextDouble();  
    System.out.println ("Enterhra (%):");  
    emphra = s.nextDouble();  
    System.out.println ("Enter da (%):");  
    empda = s.nextDouble();  
    System.out.println ("Enter it (%):");  
    empit = s.nextDouble();  
}
```

```
double calculate()
```

```
{ empgross = empbasic + emphasic * (emphra / 100.0) +  
    emphasic * (empda / 100.0) - emphasic * (empit / 100.0);  
    if (emphohrs > 200)
```

```
{ empgross = empgross + 100 * (emphohrs - 200);
```

```
}
```

```
else
```

```
{ empgross = empgross - 100 * (200 - emphohrs);
```

```
}
```

```
return empgross;
```

```
}
```

```
}
```

```
class EmpMain {
```

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

```
{ Employee e = new Employee();
```

```
e.accept();
```

```
System.out.println ("Gross salary: " + e.calculate());
```

```
}
```

```
}
```

2) CODE:

```
import java.util.*;
```

```
class Age {
```

```
int years;
```

```
int months;
```

```
Age ()
```

```
{ }
```

```
Age (int years, int months)
```

```
{ this.years = years;
```

```
this.months = months;
```

```
}
```

void accept()

```
{ Scanner s = new Scanner (System.in);  
System.out.println ("Enter years:");  
years = s.nextInt();  
System.out.println ("Enter months:");  
months = s.nextInt();  
}
```

}

class AgeMain {

public static void main (String ss[])

```
{ Age a = new Age (20,9);
```

```
System.out.println ("Sample input: " + a.years + " " + a.months);
```

```
Age a1 = new Age ();
```

```
System.out.println ("Enter age of Ram:");
```

```
a1.accept();
```

```
Age a2 = new Age ();
```

```
System.out.println ("Enter age of Shyam:");
```

```
a2.accept();
```

```
int t1 = a1.years * 12 + a1.months;
```

```
int t2 = a2.years * 12 + a2.months;
```

```
if (t1 > t2)
```

```
{ System.out.println ("Ram is elder to Shyam");
```

}

```
else if (t2 > t1)
```

```
{ System.out.println ("Shyam is elder to Ram");
```

}

```
else
```

```
{ System.out.println ("Ram and Shyam are of  
same age");
```

}

}