1). WAP to create the class name as Circle with a following methods

```
class Circle
{
 void setRadius(float radius)//accept the radius
 {
 }
 void showArea()
 { //write here calculation logics of circle area and display it
 }
} ;
 Int main()
{
 //create here object of and class accept the radius as input
 //create the object of area and call setRadius and pass radius input as parameter
//call showArea() for display the display the area
 }
}
```

2.Create the Class Name as Rectangle with a following methods and write its logics. class Rectangle

{ void setLengthWidth(int len,int wid)//accept the radius

{

}

void showArea()

{ //write here calculation logics of circle area and display it

}

}

Int main()

{ //create here object of class and accept the length and width as input //create the object of Rectangle and call setLengthWidth and pass radius input as parameter //call showArea() for display the display the area

}

}

3. WAP to create the class Employee with a following methods

```
class Employee
{ void setPersonalInfo(String name,int id,int basicSal)
 { //in this function we need to store name ,id and basicSal in instance variable
```

```
}
 void setProgressPer(int progress)
 { //if progress value is greater than 60 per then increase the basic salary of
//employee with 30 percentage
 }
 void show()
 {//in this function we need to show the all details of employee like as
 //name id and basic salary as well as incremental salary and total salary of employee  }
}


 Int main()
{
here create the object of  class and accept the name id and basic salary as well   //progress
per value not need to calculate it by using formual directly enter e.g 70   //means 70%
 //create the object of Employee class and call setPersonalInfo and pass name id and salary
// in it as well as setProgressPer() and pass progress value in it
 //call the show() method of Employee class.
 }
}
```

4. WAP to create the class name as Student with a following methods

```
class Student

{ void setSubMarks(int s[])

 { //here we need to store the array in instance variable

 }

 void calculatePer()

 { //here we need to call the aggregate of six subjects marks through the array and calculate its per
and store in instance variable.

 }

 void checkGrades()

 { //here we need to check grades means per>75 && per<=100 then student in distinction if per>60
&& per<=75 then in first division if per>=50 && per<=60 then second division and if per>40 &&
per<=50 then in third division and if per <40 then student failed

 }

};


 Int main()

 { //create the object of class

 //declare the array with 6 six of type integer and store input values in array as subject marks
```

```
 //create the object of Student class and call the setSubMarks() function and pass array in it
//then call calculatePer() student function
 //then call checkGrades() function for checking the grading of students.

 }
}
```

5. create the class name as ConvertToUpper with a following methods

```
class ConvertToUpper
{ char c[];
 void setCharArray(char ch[])
 { //here accept the character array and store in instance variable in character array
c=ch;
 }
 void convertToUpperCase()
 { //here we need to write the manual logics for converting lower case array
            //to upper case
 }
};
 Int main()
{ //here declare the fix array with a some character e.g char ch[]=new char[]={"good"};  //here create the object of ConvertToUpper class
 //call setCharArray() function and pass ch array in setCharArray() function
//call convertToUpperCase() function and see the result
 }
}
```

6.WAP to create the class name as InsertArrayEle with a following methods class InsertArrEle

```
{ int c[];
 void setIntArray(int ch[])
 { //here accept the integer array and store in instance variable in integer array
c=ch;
```

```
 }
 void insertValueOnIndex()
 { //here we need to write the manual logics for inserting value on specified index in arr
}
} ;
Int mian()
 { //here create the array with 6 six size and store only five value in it using scanner
            // create the object of InsertArrEle class
 //call the setIntArray function
 //call the insertValueOnIndex() and write the manual logics
 }
}
```

7.WAP to create the class name as ArrayFeqCount with a following methods

```
class ArrayFeqCount
{ int c[];
 void setIntArray(int ch[])
 { //here accept the integer array and store in instance variable in integer array
c=ch;
 }
 void countFeqCount()
 { //here we need to write the manual logics for inserting value on specified index in arr
}
} ;
Int main()
 { //here create the array with 6 six size and store only value in it using scanner
            // create the object of ArrayFeqCount
 //call the setIntArray function
 //call the countFeqCount() and write the manual logics
 }
}
```

8.WAP to create the class name as Seller with a following functions

```
class Seller
{
 void acceptSellingCostPrice(int sp,int cp)
 { //here we need to store the sp and sp values in instance variable
}
 void showProfitLoss()
 { //here we need to write the logics for profit and loss
 }
};
Int main()
{
 //create the object of Seller class
 //call its acceptSellingCostPrice function and pass two values in it
 //call the showProfitLoss() function
 }
}
```

9) WAP to create the pojo class name as Student class with a following methods and data or variable/state

Create the class name as DiscountFees and this class is depend on Student class means in this class we need to write a method setStudent() and accept the reference of Student class in it
As well as we need to define two another method in this class name as checkDiscountEligibility(int per) -> this function accept the per of student if per greater than 60 then student is eligible for discout and give the 30% discount on fees and update in student object

And we need to write one more function in DiscountFees class show() and in this function contain the logics for display the all details of Students with discounted fees
}

11).WAP to create the class name as Product with a following properties

```
class Product
{ private int id;
 private String name;
```

```
private int qty;

private int rate;
public void setId(int id)

{ this.id=id;

}

public int getId()

{ return id;

}

public void setName(String name)

{ this.name=name;

}

public String getName()

{ return name;

}

//write the setter getter

// for qty and rate

}
```

Create the another class name as CalculateBill and this class is depend on product but we want to pass more than one product details to CalculateBill class so here we use the var-args concept.

So your class look like as

```
class Product
{  private int id;
    private String name;
    private int qty;
    private int rate;
   public void setId(int id)
    { this.id=id;
    }
  public int getId()
   { return id;
   }
   public void setName(String name)
   { this.name=name;
   }
   public String getName()
   { return name;
   }
  //write the setter getter
 // for qty and rate
 }
```

```
class CalculateBill
{

   void calBill(Product ...p)
   {
     //in this function we can fetch all products using a looping with the help of array
     //using a getter method
      and calculate its total bill
   }

}
```

Then we need to write the class with a main method look like as

```
class Product
{  private int id;
    private String name;
    private int qty;
    private int rate;
   public void setId(int id)
    { this.id=id;
    }
   public int getId()
    { return id;
    }
    public void setName(String name)
    { this.name=name;
    }
    public String getName()
    { return name;
    }
   //write the setter getter
  // for qty and rate
}
```

```
class CalculateBill
{

   void calBill(Product ...p)
   {
     //in this function we can fetch all products using a looping with the help of array
     //using a getter method
      and calculate its total bill
   }

}

public class BillingApp
{  public static void main(String x[ ])
    {    //here we need to create the more than one object of Product class and set data in it
    //we need to create the object of CalculateBill class and pass all product objects
    //in CalculateBill class


    }
}
```

Your output look like as :

ProductId	ProductName	Qty	Rate	TotalBill
1	Parle	10	5	50
2	Cadbury	10	10	100
3	Britania	10	10	100

Total Bill of Order :250

12).WAP to create the class name as Player with a setter and getter method with a Player details.

```
class Player
{ private int id;
 private String name;
 private int runs;
 public void setId(int id)
 { this.id=id;
 }
 public int getId()
 { return id;
 }
 public void setName(String name)
 { this.name=name;
 }
 public String getName()
 { return name;
 }
```

```
public void setRuns(int runs)
{ this.runs=runs;
}
public int getRuns()
{ return runs;
}
}
```

Create the one more class name as Team and pass Player objects in Team class using a var-args concept and show the Player details in Team class.

```
class Player
{
   private int id;
   private String name;
   private int runs;

   public void setId(int id)
   { this.id=id;
   }
   public int getId()
   { return id;
   }
   public void setName(String name)
   { this.name=name;
   }
   public String getName()
   { return name;
   }
   public void setRuns(int runs)
   { this.runs=runs;
   }
  public int getRuns()
   { return runs;
   }
}
```

```
class Team
{
  void  addPlayers(Player ...p)
  {
            here we can fetch the players using a looping with array of objects and
            show it.
  }
}
```

Then we need to create the class with a main method and write the code with a following logics

```
class Player
{
   private int id;
   private String name;
   private int runs;

   public void setId(int id)
   { this.id=id;
   }
   public int getId()
   { return id;
   }
   public void setName(String name)
   { this.name=name;
   }
   public String getName()
   { return name;
   }
   public void setRuns(int runs)
   { this.runs=runs;
   }
  public int getRuns()
   { return runs;
   }
}
```

```
class Team
{
  void  addPlayers(Player ...p)
  {
            here we can fetch the players using a looping with array of objects and
            show it.
  }
}

public class TeamApplication
{
   public static void main(String x[])
   {
      //create the object of Team class and create the more than one objects of
      //Player class
      //call the addPlayers() method of Team class and pass the player objects
      //in addPlayer() method and show it.
   }
}
```

13).WAP to create the class name as PrintMatrix with a two methods void acceptTwoDArray(int x[][]) and showMatrix() sample code given below

```
class PrintMatrix
{ int a[][];
 void acceptTwoDArray(int x[ ][ ])
 { //here we store the two dimensional array in instance variable declared as two d in class e.g a
a=x;
 }
 void showMatrix()
 { //here we can display the matrix logics
 }
}
public class PrintMatrixApp
{
 public static void main(String x[])
 { //here we need to declare the two dimensional array with a 3 x 3 and store all values in it using a Scanner class
 //create the object of PrintMatrix class and call the acceptTwoDArray() function and pass two d matrix in it
 //call the showMatrix() function for display the matrix.}
}
```

14).WAP to create the class name as MarixMultiplication with a following methods

```
class MatrixMultiplication
{  int a[][];
    void acceptTwoDArray(int x[ ][ ])
    { //here we store the all two d data in instance variable matrix
       a=x;
    }
    void showMatrixMultiplication()
    { //write here matrix multiplication logics and display the matrix
    }
}
public class MatrixMultiplicationApp
{
   public static void main(String x[ ])
   {
       //here we can declare the 3 x 3 matrix two d array and store all inputs in matrix using a Scanner class
       //create the object of MatrixMultiplication
       //call the acceptTwoDArray()
       //call the showMatrixMultiplication() function
   }
}
```

15) WAP to create the class name as Employee with a following setter and getter method and create the array of objects with a 5 elements or values and store data in it and show it.

```
class Employee
{
   private int id;
   private String name;
   private int sal;

    public void setId(int id)
    { this.id=id;
    }
   public int getId()
    { return id;
    }
   public void setName(String name)
   { this.name=name;
    }
   public String getName()
    { return name;
    }
   public void setSal(int sal)
    { this.sal=sal;
    }
   public int getSal()
    { return sal;
    }
}
```

```
public class EmployeeArrApp
{
   public static void main(String x[ ])
   {
      //create the object of Scanner class
      //create the array of object of Employee class and store data in it using a Scanner
      //and write the second for loop and display the data of all from all five objects
   }
}
```

your output should like as

Name	Id	Sal
a	1	1000
b	2	2000
c	3	3000
d	4	4000
e	5	5000

16) WAP to create the class name as Employee class and create the array object of Employee class of size 5 and store all data in it and arrange all employee data in ascending order salary wise.

```
class Employee
{
   private int id;
   private String name;
   private int sal;

    public void setId(int id)
    { this.id=id;
    }
   public int getId()
    { return id;
    }
   public void setName(String name)
   { this.name=name;
    }
   public String getName()
    { return name;
    }
   public void setSal(int sal)
    { this.sal=sal;
    }
   public int getSal()
    { return sal;
    }
}
```

```
public class EmployeeArrApp
{
   public static void main(String x[ ])
   {
      //create the object of Scanner class
      //create the array of object of Employee class and store data in it using a Scanner
      //and write the second for loop and display the data of all from all five objects
   }
}
```

your input data

Name	Id	Salary
a	1	5000
b	2	3000
d	3	6000
e	4	2000
f	5	4000

your output data like as

Name	Id	Salary
e	4	2000
b	2	3000
f	5	4000
a	1	5000
d	3	6000

17) WAP to create the class name as Employee class and create the array object of Employee class of size 5 and store all data in it and delete the specified employee data using employee id

```
class Employee
{
   private int id;
   private String name;
   private int sal;

    public void setId(int id)
    { this.id=id;
    }
   public int getId()
    { return id;
    }
   public void setName(String name)
   { this.name=name;
    }
   public String getName()
    { return name;
    }
   public void setSal(int sal)
    { this.sal=sal;
    }
   public int getSal()
    { return sal;
    }
}
```

```
public class EmployeeArrApp
{
   public static void main(String x[ ])
   {
       //create the object of Scanner class
       //create the array of object of Employee class and store data in it using a Scanner
       //and write the second for loop and display the data of all from all five objects
   }
}
```

your input data

Name	Id	Salary
a	1	5000
b	2	3000
d	3	6000
e	4	2000
f	5	4000

enter the employee id for delete
2
then output should like as

Name	Id	Salary
a	1	5000
d	3	6000
e	4	2000
f	5	4000