1: Define a class named Rectangle with two data members length and width. Create a default-constructor and a two argument constructor

to initialize the data members. Create methods inputValues() and printValues() to get and print length and width,area() to return area of rectangle,

perimeter() to return perimeter of rectangle,

and greaterRectangle(Rectangle r1) to return the reference of greater rectangle based on area to the main method.

2: Define a class named Distance with two data members feet(int) and inches(float).

Create a default and two argument constructor to initialize feet and inches.

Create methods getDist() and showDist() to get and print distance object values.

Also create a method addDistance(Distance d1,Distance d2) to add two distance objects (add feet to feet and inches to inches) and

return the reference of newly created object (that contains sum of distances) to the main method.

3: Define a class named Complex with two data members real and imaginary. Create default and

two argument constructor.Create get() and show() to input and print values.

Create methods multiplyComplex(Complex c1) to multiply two Complex objects and

store result in calling object,

divideComplex(Complex c1) to divide two complex numbers and store result in calling object (nothing returned).

4: Define a class named Employee with data members id, name, salary. Create default and three argument constructor.

Create get() and set() to input and print values. Create a method greaterSalary(Employee e1, Employee e2)

that returns the employee object with greater salary.

5: Define a class named Flight with data members flightNo(int), destination(String), distance(double), fuel(double)

. Create default and four argument to initialize values of Flight object. Create feedInfo() to input values and showInfo() to show values of Flight object. And a method calculateFuel() to calculate fuel and store the value in fuel variable.

-> fuel used is 500 if distance is less than or equals to 1000.

-> fuel used is 1100 if distance is greater than 1000 but less than or equals to 2000.

-> otherwise set fuel to 2200.

6: Define a class CeaserCipher. Create two static methods String encryptMessage(String message, int key) to return encrypted message

and String decryptMessage(String messge, int key) to return decrypted message.