

```

public class Spaceship {
    private String shipName;
    private int passengerCount;
    private int maxPassengers;

    public Spaceship(String shipName, int maxPassengers) {
        this.shipName = shipName;
        this.maxPassengers = (maxPassengers >= 0)?maxPassengers:100;
        /* Code above is equal to:
        if (maxPassengers >= 0)
            this.maxPassengers = maxPassengers;
        else
            this.maxPassengers = 100; */
    }

    public void setShipName(String shipName) {
        this.shipName = shipName;
    }

    public String getShipName() {
        return this.shipName;
    }

    public int getMaxPassengers() {
        return this.maxPassengers;
    }

    public void board(int boardingPassengers) {
        if ( this.passengerCount + boardingPassengers <= maxPassengers) {
            this.passengerCount += boardingPassengers;
        }
    }

    public void leave(int leavingPassengers) {
        if ( this.passengerCount - leavingPassengers >= 0 ) {
            this.passengerCount -= leavingPassengers;
        }
    }

    public int getPassengerCount() {
        return this.passengerCount;
    }

    public void transferTo(Spaceship newShip) {
        if (newShip == null)
            return;

        if (this.getPassengerCount() + newShip.getPassengerCount() <= newShip.getMaxPassengers()) {
            newShip.board(this.getPassengerCount());
            this.leave(this.getPassengerCount());
        }
    }

    // Method toString() will automatically be called when the object is called
    // inside a System.out.println() instruction.
    public String toString() {
        String out = "Ship name: " + this.getShipName() + "\n" +
            "Passenger count: " + this.getPassengerCount() + "\n" +
            "Max passengers: " + this.getMaxPassengers();

        return out;
    }
}

```

Computer Science II – Prepa Tec Campus Eugenio Garza Lagüera
Activity 6: Spaceship

Name: _____

Student Id: _____

Name: _____

Student Id: _____

Name: _____

Student Id: _____

```
Spaceship s1 = new Spaceship("My Ship", 20);
Spaceship s2 = s1;
s1.board(10);
s2.board(10);
```

```
System.out.println(s1);
System.out.println(s2);
```

```
String shipName;
int passengerCount;
Spaceship s1 = new Spaceship("Millenium Falcon", 20);
```

```
s1.board(10);
shipName = s1.getShipName();
System.out.println(shipName);
passengerCount = s1.getPassengerCount();
System.out.println(passengerCount);
```

```
String shipName;
int passengerCount;
Spaceship s2 = new Spaceship("X-Wing", 2);
```

```
passengerCount = s2.getPassengerCount();
System.out.println(passengerCount);
s2.board(1);
passengerCount = s2.getPassengerCount();
System.out.println(passengerCount);
s2.board(1);
passengerCount = s2.getPassengerCount();
System.out.println(passengerCount);
```

```
shipName = s2.getShipName();
System.out.println(shipName);
s2.setShipName("X Wing");
shipName = s2.getShipName();
System.out.println(shipName);
shipName = s2.getShipName();
```

```
Spaceship Hyperion = new Spaceship("", 2500);
Hyperion.setShipName("Hyperion");
Hyperion.board(450);
Hyperion.board(3655);
```

```
Spaceship TheMilano = new Spaceship("The Milano", 10);
TheMilano.setShipName("Milano");
```

```
Hyperion = TheMilano;
TheMilano.board(1);
Hyperion.board(4);
```

```
System.out.println(TheMilano);
System.out.println(Hyperion);
```

<pre> Spaceship Hyperion = new Spaceship("", 2500); Hyperion.setShipName("Hyperion"); Hyperion.board(450); Hyperion.board(3655); Spaceship TheMilano = new Spaceship("The Milano", 10); TheMilano.setShipName("Milano"); Hyperion = TheMilano; TheMilano.board(1); Hyperion.board(4); System.out.println(TheMilano); System.out.println(Hyperion); </pre>	
<pre> Spaceship enterprise = new Spaceship("Enterprise",100); Spaceship enterprise2; Spaceship enterprise3; enterprise2 = enterprise; enterprise2.board(10); enterprise.board(50); enterprise2.board(50); enterprise2 = new Spaceship("Enterprise 2", 50); enterprise3 = enterprise; enterprise3 = new Spaceship("Enterprise 3", 500); System.out.println(enterprise); System.out.println(enterprise2); </pre>	
<pre> Spaceship Normandy, Andromeda; Normandy = new Spaceship("Normandy", 30); Andromeda = new Spaceship("Andromeda", 500); Andromeda = Normandy; Normandy.setShipName("SSV Normandy SR-1"); Normandy.board(10); Andromeda.board(10); Andromeda.setShipName("Andromeda ISS"); Andromeda.board(20); System.out.println(Andromeda); System.out.println(Normandy); </pre>	
<pre> Spaceship Voyager1, Apollo; Voyager1 = new Spaceship("Voyager 1", 5); Apollo = new Spaceship("Apollo 11", 10); Voyager1.board(3); Voyager1.transferTo(Apollo); Voyager1.board(5); Voyager1.transferTo(Apollo); Voyager1.board(2); Voyager1.transferTo(Apollo); System.out.println(Voyager1); System.out.println(Apollo); </pre>	