

```
/*  
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 * To change this template file, choose Tools | Templates  
 * and open the template in the editor.  
 */
```

```
package Chat;  
  
public class Rocket {  
    private String stage;  
    private int fuel;  
    private int altitude;  
    private int speed;  
  
    public Rocket() {  
        stage = "Pre-Launch";  
        fuel = 100;  
        altitude = 0;  
        speed = 0;  
    }  
  
    // Getters and setters for the attributes  
  
    public String getStage() {  
        return stage;  
    }  
  
    public void setStage(String stage) {  
        this.stage = stage;  
    }  
  
    public int getFuel() {  
        return fuel;  
    }  
  
    public void setFuel(int fuel) {  
        this.fuel = fuel;  
    }  
  
    public int getAltitude() {  
        return altitude;  
    }  
  
    public void setAltitude(int altitude) {  
        this.altitude = altitude;  
    }  
}
```

```

public int getSpeed() {
    return speed;
}

public void setSpeed(int speed) {
    this.speed = speed;
}

public void launchSequence() {
    // ... existing code ...

    // Simulate the mission
    while (altitude < 200 && fuel > 0) {
        // Update rocket status
        altitude += speed;
        fuel -= 10;
        speed += 100;

        // Display real-time updates
        System.out.println("Stage: " + stage + ", Fuel: " + fuel + "%, Altitude: " + altitude + " km,
Speed: " + speed + " km/h");

        // Check for stage separation
        if (altitude >= 100 && stage.equals("Stage 1")) {
            stage = "Stage 2";
            System.out.println("Stage 1 complete. Separating stage. Entering Stage 2.");
        }
    }

    // Check mission outcome
    if (altitude >= 200) {
        System.out.println("Orbit achieved! Mission Successful.");
    } else {
        System.out.println("Mission Failed due to insufficient fuel.");
    }
}
}

```