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package javaassessment;
import java.util.Scanner;

@SuppressWarnings("unused")
class NavalVessel {
    private int vesselId;
    private String vesselName;
    private int noOfVoyagesPlanned;
    private int noOfVoyagesCompleted;
    private String purpose;
    private String classification;

    public NavalVessel(int vesselId, String vesselName, int noOfVoyagesPlanned, int noOfVoyagesCompleted, String purpose) {
        this.vesselId = vesselId;
        this.vesselName = vesselName;
        this.noOfVoyagesPlanned = noOfVoyagesPlanned;
        this.noOfVoyagesCompleted = noOfVoyagesCompleted;
        this.purpose = purpose;
    }

    // Getters and Setters
    public int getVesselId() {
        return vesselId;
    }

    public void setVesselId(int vesselId) {
        this.vesselId = vesselId;
    }

    public String getVesselName() {
        return vesselName;
    }

    public void setVesselName(String vesselName) {
        this.vesselName = vesselName;
    }

    public int getNoOfVoyagesPlanned() {
        return noOfVoyagesPlanned;
    }

    public void setNoOfVoyagesPlanned(int noOfVoyagesPlanned) {
        this.noOfVoyagesPlanned = noOfVoyagesPlanned;
    }

    public int getNoOfVoyagesCompleted() {
        return noOfVoyagesCompleted;
    }

    public void setNoOfVoyagesCompleted(int noOfVoyagesCompleted) {
        this.noOfVoyagesCompleted = noOfVoyagesCompleted;
    }

    public String getPurpose() {
        return purpose;
    }
}

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public void setNoOfVoyagesCompleted(int noOfVoyagesCompleted) {  
    this.noOfVoyagesCompleted = noOfVoyagesCompleted;  
}  
  
public String getPurpose() {  
    return purpose;  
}  
  
public void setPurpose(String purpose) {  
    this.purpose = purpose;  
}  
  
public String getClassification() {  
    return classification;  
}  
  
public void setClassification(String classification) {  
    this.classification = classification;  
}  
}
```

```

package javaassessment;

import java.util.Scanner;

public class Solution1 {
    public static double findAvgVoyagesByPct(NavalVessel[] vessels, int percentage) {
        int totalVoyagesCompleted = 0;
        int count = 0;

        for (NavalVessel vessel : vessels) {
            double pct = (double) vessel.getNoOfVoyagesCompleted() * 100 / vessel.getNoOfVoyagesPlanned();
            if (pct >= percentage) {
                totalVoyagesCompleted += vessel.getNoOfVoyagesCompleted();
                count++;
            }
        }

        if (count == 0) {
            return 0;
        } else {
            return (double) totalVoyagesCompleted / count;
        }
    }

    public static NavalVessel findVesselByGrade(NavalVessel[] vessels, String purpose) {
        for (NavalVessel vessel : vessels) {
            if (vessel.getPurpose().equalsIgnoreCase(purpose)) {
                double pct = (double) vessel.getNoOfVoyagesCompleted() * 100 / vessel.getNoOfVoyagesPlanned();
                if (pct == 100) {
                    vessel.setClassification("Star");
                } else if (pct >= 80 && pct < 100) {
                    vessel.setClassification("Leader");
                } else if (pct >= 55 && pct < 80) {
                    vessel.setClassification("Inspire");
                } else {
                    vessel.setClassification("Striver");
                }
                return vessel;
            }
        }
        return null;
    }

    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        NavalVessel[] vessels = new NavalVessel[4];

        for (int i = 0; i < 4; i++) {
            int vesselId = scanner.nextInt();
            String vesselName = scanner.next();
            int noOfVoyagesPlanned = scanner.nextInt();
            int noOfVoyagesCompleted = scanner.nextInt();
            String purpose = scanner.next();
            vessels[i] = new NavalVessel(vesselId, vesselName, noOfVoyagesPlanned, noOfVoyagesCompleted, purpose);
        }
    }
}

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public static void main(String[] args) {
    Scanner scanner = new Scanner(System.in);
    NavalVessel[] vessels = new NavalVessel[4];

    for (int i = 0; i < 4; i++) {
        int vesselId = scanner.nextInt();
        String vesselName = scanner.next();
        int noOfVoyagesPlanned = scanner.nextInt();
        int noOfVoyagesCompleted = scanner.nextInt();
        String purpose = scanner.next();
        vessels[i] = new NavalVessel(vesselId, vesselName, noOfVoyagesPlanned, noOfVoyagesCompleted, purpose);
    }

    int percentage = scanner.nextInt();
    String purpose = scanner.next();

    double avgVoyages = findAvgVoyagesByPct(vessels, percentage);
    if (avgVoyages == 0) {
        System.out.println("0");
    } else {
        System.out.println((int) avgVoyages);
    }

    NavalVessel vessel = findVesselByGrade(vessels, purpose);
    if (vessel != null) {
        System.out.println(vessel.getVesselName() + "%" + vessel.getClassification());
    } else {
        System.out.println("No Naval Vessel is available with the specified purpose");
    }

    scanner.close();
}

```

400

300

Army

444

Thamishwini

500

500

Wellfare

75

Army

300

Yashwin%Inspire