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## Assignment: Conditional Statement (else-if ladder statement)

### 1. Grade Checker

#### Description:

$\geq 90 \rightarrow A$   
 $\geq 75 \rightarrow B$   
 $\geq 50 \rightarrow C$   
Else  $\rightarrow D$

#### Sample Input:

Marks: 82

#### Sample Output:

Grade B



```
class GradeChecker {
    public static void main(String[] args) {
        int marks = 82;

        if (marks >= 90) {
            System.out.println("Grade A");
        } else if (marks >= 75) {
            System.out.println("Grade B");
        } else if (marks >= 50) {
            System.out.println("Grade C");
        } else {
            System.out.println("Grade D");
        }
    }
}
```

## 2. Water Temperature Checker

### Description:

$< 0 \rightarrow$  Freezing

$0-20 \rightarrow$  Cold

$21-35 \rightarrow$  Warm

$35 \rightarrow$  Hot

### Sample Input:

Temperature: 10

### Sample Output:

Cold

```
class WaterTemperatureChecker {  
    public static void main(String[] args) {  
        int temperature = 10;  
  
        if (temperature < 0) {  
            System.out.println("Freezing");  
        } else if (temperature >= 0 && temperature <= 20) {  
            System.out.println("Cold");  
        } else if (temperature >= 21 && temperature <= 35) {  
            System.out.println("Warm");  
        } else {  
            System.out.println("Hot");  
        }  
    }  
}
```

### 3. Day Classification

#### Description:

1 → Monday, 2 → Tuesday, ... Else → Invalid

#### Sample Input:

Enter day: 5

#### Sample Output:

Friday

```
class DayClassification {  
    public static void main(String[] args) {  
        int day = 5;  
  
        if (day == 1) {  
            System.out.println("Monday");  
        } else if (day == 2) {  
            System.out.println("Tuesday");  
        } else if (day == 3) {  
            System.out.println("Wednesday");  
        } else if (day == 4) {  
            System.out.println("Thursday");  
        } else if (day == 5) {  
            System.out.println("Friday");  
        } else if (day == 6) {  
            System.out.println("Saturday");  
        } else if (day == 7) {  
            System.out.println("Sunday");  
        } else {  
            System.out.println("Invalid Day");  
        }  
    }  
}
```

#### 4. Speed Category

**Description:**

0–40 → Slow

41–80 → Moderate

81–120 → Fast

120 → Very Fast

**Sample Input:**

Speed: 95

**Sample Output:**

Fast

```
class SpeedCategory {  
    public static void main(String[] args) {  
        int speed = 95;  
  
        if (speed >= 0 && speed <= 40) {  
            System.out.println("Slow");  
        } else if (speed >= 41 && speed <= 80) {  
            System.out.println("Moderate");  
        } else if (speed >= 81 && speed <= 120) {  
            System.out.println("Fast");  
        } else {  
            System.out.println("Very Fast");  
        }  
    }  
}
```

## 5. BMI Category

### Description:

< 18.5 → Underweight  
18.5–24.9 → Normal  
25–29.9 → Overweight  
 $\geq 30$  → Obese

### Sample Input:

BMI: 27

### Sample Output:

Overweight

```
class BMICategory {  
    public static void main(String[] args) {  
        double bmi = 27;  
  
        if (bmi < 18.5) {  
            System.out.println("Underweight");  
        } else if (bmi >= 18.5 && bmi <= 24.9) {  
            System.out.println("Normal");  
        } else if (bmi >= 25 && bmi <= 29.9) {  
            System.out.println("Overweight");  
        } else {  
            System.out.println("Obese");  
        }  
    }  
}
```

## 6. Electricity Bill Slab

### Description:

< 100 → ₹3/unit

100–300 → ₹5/unit

300 → ₹7/unit

### Sample Input:

Units: 160

### Sample Output:

Bill: 800

```
class ElectricityBill {  
    public static void main(String[] args) {  
        int units = 160;  
        int bill;  
  
        if (units < 100) {  
            bill = units * 3;  
        } else if (units >= 100 && units <= 300) {  
            bill = units * 5;  
        } else {  
            bill = units * 7;  
        }  
  
        System.out.println("Bill: ₹" + bill);  
    }  
}
```

## 7. Movie Ticket Price

### Description:

< 12 → ₹100

12–18 → ₹150

18 → ₹200

### Sample Input:

Age: 15

### Sample Output:

Ticket Price: ₹150

```
class MovieTicketPrice {  
    public static void main(String[] args) {  
        int age = 15;  
  
        if (age < 12) {  
            System.out.println("Ticket Price: ₹100");  
        } else if (age >= 12 && age < 18) {  
            System.out.println("Ticket Price: ₹150");  
        } else {  
            System.out.println("Ticket Price: ₹200");  
        }  
    }  
}
```

## 8. Internet Speed Classification

### Description:

< 5 Mbps → Very Slow

5–20 Mbps → Normal

20–50 Mbps → Fast

50 Mbps → Super Fast

### Sample Input:

Speed: 34 Mbps

### Sample Output:

Fast

```
class InternetSpeedClassification {  
    public static void main(String[] args) {  
        int speed = 34;  
  
        if (speed < 5) {  
            System.out.println("Very Slow");  
        } else if (speed >= 5 && speed <= 20) {  
            System.out.println("Normal");  
        } else if (speed > 20 && speed <= 50) {  
            System.out.println("Fast");  
        } else {  
            System.out.println("Super Fast");  
        }  
    }  
}
```