

# Java Training – Day 3 Assignment

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## 1. Grade Based on Score

```
import java.util.*;
class Grade {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter your score (0-100): ");
        int score = sc.nextInt();
        if (score >= 90)
            System.out.println("Your grade is A.");
        else if (score >= 80)
            System.out.println("Your grade is B.");
        else if (score >= 70)
            System.out.println("Your grade is C.");
        else if (score >= 60)
            System.out.println("Your grade is D.");
        else
            System.out.println("Your grade is F.");
    }
}
```

## 2. Largest of Three Numbers

```
import java.util.*;
class LargestThree {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter three numbers: ");
        int a = sc.nextInt();
        int b = sc.nextInt();
        int c = sc.nextInt();
        int largest = (a > b && a > c) ? a : (b > c ? b : c);
        System.out.println("The largest number is " + largest);
    }
}
```

## 3. Triangle Type

```
import java.util.*;
class TriangleType {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter sides of triangle: ");
        int a = sc.nextInt();
        int b = sc.nextInt();
        int c = sc.nextInt();
        if (a == b && b == c)
            System.out.println("Equilateral Triangle");
        else if (a == b || b == c || a == c)
            System.out.println("Isosceles Triangle");
        else
            System.out.println("Scalene Triangle");
    }
}
```

## 4. Password Strength

```
import java.util.regex.*;
import java.util.*;
class PasswordStrength {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter password: ");
        String pwd = sc.nextLine();
```

```

        if (pwd.matches("(?=.*[0-9])(?=.*[a-z])(?=.*[A-Z])(?=.*[@#$%^&+=]).{8,}"))
            System.out.println("Password strength: Strong");
        else if (pwd.matches("(?=.*[0-9])(?=.*[a-z])(?=.*[A-Z]).{6,}"))
            System.out.println("Password strength: Medium");
        else
            System.out.println("Password strength: Weak");
    }
}

```

## 5. Reverse a Number

```

import java.util.*;
class ReverseNumber {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter a number: ");
        int n = sc.nextInt();
        int rev = 0;
        while (n != 0) {
            rev = rev * 10 + n % 10;
            n /= 10;
        }
        System.out.println("Reversed Number: " + rev);
    }
}

```

## 6. Prime Number Check

```

import java.util.*;
class PrimeCheck {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter a number: ");
        int n = sc.nextInt();
        boolean isPrime = n > 1;
        for (int i = 2; i <= n / 2; i++) {
            if (n % i == 0) {
                isPrime = false;
                break;
            }
        }
        if (isPrime)
            System.out.println(n + " is a prime number.");
        else
            System.out.println(n + " is not a prime number.");
    }
}

```

## 7. Sum of Digits

```

import java.util.*;
class SumDigits {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter a number: ");
        int n = sc.nextInt();
        int sum = 0;
        while (n != 0) {
            sum += n % 10;
            n /= 10;
        }
        System.out.println("Sum of digits: " + sum);
    }
}

```

## 8. Pattern Printing

```

class Pattern {
    public static void main(String[] args) {

```

```
for (int i = 1; i <= 5; i++) {
    for (int j = 1; j <= i * 2 - 1; j++)
        System.out.print("* ");
    System.out.println();
}
for (int i = 4; i >= 1; i--) {
    for (int j = 1; j <= i * 2 - 1; j++)
        System.out.print("* ");
    System.out.println();
}
}
```