

Key Hand Workouts

Find theDAY

You are given a number of days, which must be a positive integer. To find out which day it is, please check the corresponding date. For example: 4 ---> Thursday.

```
import java.util.Scanner;

class FindTheDay {
    public static void main(String[] args)
    {
        Scanner scan = new Scanner(System.in);
        System.out.print("Enter your day: ");
        int day = scan.nextInt();

        if(day > 0) {
            int reminder = day%6;

            switch (reminder) {
                case 0:
                    System.out.println("Sunday");
                    break;
                case 1:
                    System.out.println("Monday");
                    break;
                case 2:
                    System.out.println("Tuesday");
```

```

        break;
    case 3:
        System.out.println("Wednesday");
        break;
    case 4:
        System.out.println("Thursday");
        break;
    case 5:
        System.out.println("Friday");
        break;
    case 6:
        System.out.println("Saturday");
        break;
    default:
        System.out.println("Invalid day");
    }
} else {
    System.out.println("Invalid day number");
}

scan.close();
}
}

```

Code output:

```
PS C:\ayekiran\JavaSE\core\Chapter01\DSA\src\user-input> javac FindTheDay.java
```

```

● PS C:\ayekiran\JavaSE\core\Chapter01\DSA\src\user-input> java FindTheDay
Enter your day: 342
Sunday
● PS C:\ayekiran\JavaSE\core\Chapter01\DSA\src\user-input> java FindTheDay
Enter your day: 45
Wednesday
● PS C:\ayekiran\JavaSE\core\Chapter01\DSA\src\user-input> java FindTheDay
Enter your day: 5
Friday
● PS C:\ayekiran\JavaSE\core\Chapter01\DSA\src\user-input> java FindTheDay
Enter your day: 23
Friday
● PS C:\ayekiran\JavaSE\core\Chapter01\DSA\src\user-input> java FindTheDay
Enter your day: 53
Friday
○ PS C:\ayekiran\JavaSE\core\Chapter01\DSA\src\user-input> 

```

FindNextNumber

You can select any option from the given list. Enter the details such as the first term, term, and either the common difference or the common multiplier. Can see the full series.

```
import java.util.Scanner;

public class FindNextNumber {
    public static void main(String[] args) {
        Scanner scan = new Scanner(System.in);

        System.out.print("Select the sequence type: \n" +
            "1. Arithmetic Progression\n" +
            "2. Geometric Progression\n" +
            "Enter your choice (1 or 2): ");

        int choice = scan.nextInt();

        System.out.print("\nEnter the first term: ");
        int firstTerm = scan.nextInt();

        System.out.print("Enter the find term: ");
        int term = scan.nextInt();

        if (choice == 1) {
            System.out.print("Enter the common difference: ");
            int commonDiff = scan.nextInt();

            System.out.print(firstTerm + " ");
            for(int i = 1; term > i; i++) {
                int result = firstTerm + (i) * commonDiff;
                System.out.print(result + " ");
            }
        }
    }
}
```

```

        System.out.print(firstTerm + " ");

        for(int i = 1; term > i; i++) {

            int result = (int) (firstTerm * Math.pow(commonMul, i));

            System.out.print(result + " ");

        }

    } else {

        System.out.println("Invalid choice. Please select 1 or 2.");

    }

    scan.close();

}

}

```

```
PS C:\ayekiran\JavaSE\core\Chapter01\DSA\src\user-input> javac FindNextNumber.java
```

```

● PS C:\ayekiran\JavaSE\core\Chapter01\DSA\src\user-input> java FindNextNumber
Select the sequence type:
1. Arithmetic Progression
2. Geometric Progression
Enter your choice (1 or 2): 1

Enter the first term: 2
Enter the find term: 8
Enter the common difference: 3
2 5 8 11 14 17 20 23
● PS C:\ayekiran\JavaSE\core\Chapter01\DSA\src\user-input> java FindNextNumber
Select the sequence type:
1. Arithmetic Progression
2. Geometric Progression
Enter your choice (1 or 2): 2

Enter the first term: 2
Enter the find term: 8
Enter the common multiplier: 3
2 6 18 54 162 486 1458 4374
○ PS C:\ayekiran\JavaSE\core\Chapter01\DSA\src\user-input>

```

Basic Operations

You can select any option from the given list. It has basic operation like addition, subtraction, multiplication, and division.

```
import java.util.Scanner;

public class BasicOperation {
    public static void main(String[] args) {
        Scanner scan = new Scanner(System.in);

        System.out.print("Select Operation: \n" +
            "1. Addition\n" +
            "2. Subtraction\n" +
            "3. Multiplication\n" +
            "4. Division\n" +
            "Enter your choice (1, 2, 3, or 4): ");

        int choice = scan.nextInt();

        System.out.print("\nEnter the first number: ");
        int firstNumber = scan.nextInt();

        System.out.print("Enter the second number: ");
        int secondNumber = scan.nextInt();
```

```

if(choice == 1){
    System.out.println("Result: " + (firstNumber + secondNumber));
} else if(choice == 2) {
    System.out.println("Result: " + (firstNumber - secondNumber));
} else if(choice == 3) {
    System.out.println("Result: " + (firstNumber * secondNumber));
} else if(choice == 4) {
    if (secondNumber != 0) {
        System.out.println("Result: " + (firstNumber / secondNumber));
    } else {
        System.out.println("Error: Division by zero is not allowed.");
    }
} else {
    System.out.println("Invalid choice. Please select 1, 2, 3, or 4.");
}

scan.close();
}
}

```

Code output:

```

PS C:\ayekiran> cd C:\ayekiran\JavaSE\core\Chapter01\DSA\src\user-input
PS C:\ayekiran\JavaSE\core\Chapter01\DSA\src\user-input> javac BasicOperation.java
PS C:\ayekiran\JavaSE\core\Chapter01\DSA\src\user-input>

```

```
● PS C:\ayekiran> cd C:\ayekiran\JavaSE\core\Chapter01\DSA\src\user-input
● PS C:\ayekiran\JavaSE\core\Chapter01\DSA\src\user-input> java BasicOperation
Select Operation:
1. Addition
2. Subtraction
3. Multiplication
4. Division
Enter your choice (1, 2, 3, or 4): 1

Enter the first number: 2
Enter the second number: 3
Result: 5
● PS C:\ayekiran\JavaSE\core\Chapter01\DSA\src\user-input> java BasicOperation
Select Operation:
1. Addition
2. Subtraction
3. Multiplication
4. Division
Enter your choice (1, 2, 3, or 4): 2

Enter the first number: 5
Enter the second number: 6
Result: -1
● PS C:\ayekiran\JavaSE\core\Chapter01\DSA\src\user-input> java BasicOperation
Select Operation:
1. Addition
2. Subtraction
3. Multiplication
4. Division
Enter your choice (1, 2, 3, or 4): 3

Enter the first number: 2
Enter the second number: 3
Result: 6
● PS C:\ayekiran\JavaSE\core\Chapter01\DSA\src\user-input> java BasicOperation
Select Operation:
1. Addition
2. Subtraction
3. Multiplication
4. Division
Enter your choice (1, 2, 3, or 4): 4

Enter the first number: 28
Enter the second number: 7
Result: 4
○ PS C:\ayekiran\JavaSE\core\Chapter01\DSA\src\user-input> 
```