**Program for input Mismatch**

Importjava.util.InputMismatchException;

import java.util.Scanner; public class InputHandle

{

public static void main(String[] args)

{

Scanner scanner = new Scanner(System.in); boolean continueInput = true; while (continueInput) {

try

{

// Prompt the user to enter an integer System.out.print("Enter an integer: "); int number = scanner.nextInt(); // Attempt to read an integer from the user

// If no exception occurs, display the entered integer

System.out.println("You entered: " + number);

// Ask the user if they want to enter another integer

System.out.print("Do you want to enter another integer? (y/n): "); String choice = scanner.next(); if (!choice.equalsIgnoreCase("y"))

{

continueInput = false; // Set continueInput to false to exit the loop

}

}

catch (InputMismatchException e)

{

// If InputMismatchException occurs (user entered non-integer), display error message System.out.println("Error: Please enter a valid integer."); scanner.nextLine(); // Clear the input buffer

}

}

scanner.close(); // Close the scanner to release resources

}

}

**Output**

Enter an integer: 100

You entered: 100

Do you want to enter another integer? (y/n): y

Enter an integer: 6y

Error: Please enter a valid integer.

Enter an integer: r

Error: Please enter a valid integer.

Enter an integer: 78

You entered: 78

Do you want to enter another integer? (y/n): n

**Program For Integer Convert** import java.util.Scanner; public class IntegerConvert

{

public static void main(String[] args)

{

Scanner scanner = new Scanner(System.in); boolean continueConversion = true; while (continueConversion) { boolean validInput = false; while (!validInput) {

try

{

// Prompt the user to enter a number as a string

System.out.print("Enter a number: ");

String userInput = scanner.nextLine(); // Attempt to convert the user input to an integer int number = Integer.parseInt(userInput);

// If no exception occurs, display the converted integer System.out.println("Converted number: " + number); validInput = true; // Set validInput to true to exit the inner loop }

catch (NumberFormatException e)

{

// If NumberFormatException occurs (invalid number format), display error message

System.out.println("Error: Invalid number format. Please enter a valid integer.");

}

catch (NullPointerException e)

{

// If NullPointerException occurs (user input is null), display error message System.out.println("Error: Null input. Please enter a valid string.");

}

}

// Ask the user if they want to convert another number

System.out.print("Do you want to convert another number? (yes/no): "); String choice = scanner.nextLine(); continueConversion = choice.equalsIgnoreCase("yes");

}

scanner.close(); // Close the scanner to release resources

}

}

**OUTPUT**

Enter a number: 344

Converted number: 344

Do you want to convert another number? (yes/no): yes

Enter a number: y

Error: Invalid number format. Please enter a valid integer.

Enter a number: 78

Converted number: 78

Do you want to convert another number? (yes/no): no