```
import java.util.*;
import java.util.Scanner;
//import java.io.*;
public class AgeInputVer4 {
    private static final String DEFAULT MESSAGE = "Your age:";
    private static final int DEFAULT LOWER BOUND = 0;
   private static final int DEFAULT UPPER BOUND = 99;
   private int lowerBound;
    private int upperBound;
   private Scanner scanner;
   public AgeInputVer4() {
        init (DEFAULT LOWER BOUND, DEFAULT UPPER BOUND);
    public AgeInputVer4(int low, int high)
            throws IllegalArgumentException {
        if (low > high) {
            throw new IllegalArgumentException (
                    "Low (" + low + ") was " +
                             "larger than high(" + high + ")");
        } else {
            init(low, high);
    }
    public int getAge() throws Exception {
        return getAge(DEFAULT MESSAGE);
    }
   public int getAge(String prompt) throws Exception {
        int age;
        while (true) {
            System.out.print(prompt);
            try {
                age = scanner.nextInt();
                if (age < lowerBound || age > upperBound) {
                    throw new Exception ("Input out of bound");
                return age; //input okay so return the value &
exit
            } catch (InputMismatchException e) {
                scanner.next();
                System.out.println("Input is invalid.\n" +
                        "Please enter digits only");
            }
```

```
}
    private void init(int low, int high) {
        lowerBound = low;
        upperBound = high;
        scanner = new Scanner(System.in);
    }
    public static void main(String[] args) {
        AgeInputVer4 ageInputVer4 = new AgeInputVer4();
        AgeInputVer4 ageInputVer4LowHigh = new AgeInputVer4(20,
40);
        try {
            ageInputVer4LowHigh.getAge();
        } catch (Exception e) {
            e.printStackTrace();
    }
}
import java.util.*;
public class InputHandler 01 {
    private static final String BLANK = "";
    private String name;
    private String room;
    private String pwd;
    private Scanner scanner;
    public InputHandler 01() {
        name = BLANK;
        room = BLANK;
        pwd = BLANK;
        scanner = new Scanner(System.in);
    }
    public void getInput() {
        System.out.print("Enter Name: ");
```

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try {
            name = scanner.next();
            if (name.contains(" "))
                throw new EmptyInputException();
            name = scanner.next();
            throw new EmptyInputException();
        } catch (EmptyInputException e) {
            System.out.println("ERROR: Please do not enter
spaces.");
        System.out.print("Enter Room No.:");
        try {
            room = scanner.next();
            if (room.contains(" ")) {
                throw new EmptyInputException();
            room = scanner.next();
            throw new EmptyInputException();
        } catch (EmptyInputException e) {
            System.out.println("ERROR: Please do not enter
spaces.");
        }
        System.out.print("Enter Password:");
        try {
            pwd = scanner.next();
            if (!pwd.contains(" ")) {
                throw new EmptyInputException();
            }else
            pwd = scanner.next();
            throw new EmptyInputException();
        } catch (EmptyInputException e) {
            System.out.println("ERROR: Please do not enter
spaces.");
    }
    public String getName() {
        return name;
    }
    public String getRoom() {
        return room;
    }
```

```
public String getPassword() {
    return pwd;
}

public static void main(String[] args) {
    InputHandler_01 iHandler = new InputHandler_01();
    iHandler.getInput();
}

class EmptyInputException extends Exception {
    public EmptyInputException() {
        super("ERROR: Spaces entered - try again.");
    }

    public EmptyInputException(String npr) {
        super("ERROR: Spaces entered for " + npr + " - Please try again.");
    }
}
```