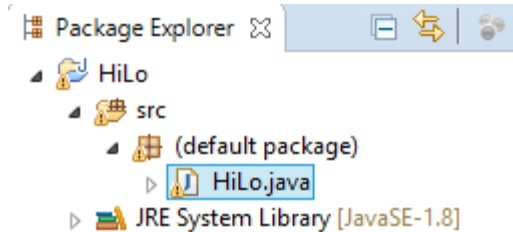# Solution 1: Hi Lo

Step 1: Create a Project


```java
public class HiLo {
    public static int getInteger() {
        java.util.Scanner in = new java.util.Scanner(System.in);
        return in.nextInt();
    }

    public static int getRandom() {
        java.util.Random rand = new java.util.Random();
        return rand.nextInt(100);
    }

    public static void main(String [] args) {

        int myNumber = getRandom();
        System.out.println(myNumber);

        int guess = getInteger();
        System.out.println(guess);

    }
}
```

Step 2: Add the prompt logic

```java
public static void main(String [] args) {

    int myNumber = getRandom();
    System.out.println(myNumber);

    int guess = getInteger();
    System.out.println(guess);

    if(guess<myNumber) {
        System.out.println("Guess higher!");
    }

    if(guess>myNumber) {
        System.out.println("Guess Lower!");
    }

    if(guess==myNumber) {
        System.out.println("You got it!");
    }

}
```

Step 2: Add the prompt logic

```java
public static void main(String [] args) {

    int myNumber = getRandom();
    System.out.println(myNumber);

    int guess = getInteger();

    if(guess<myNumber) {
        System.out.println("Guess higher!");
    } else if(guess>myNumber) {
        System.out.println("Guess lower!");
    } else {
        System.out.println("You got it!");
    }

}
```

Step 3: The Game Loop

```java
public static void main(String [] args) {

    int myNumber = getRandom();
    System.out.println(myNumber);

    int guess=0;

    do {
        guess = getInteger();

        if(guess<myNumber) {
            System.out.println("Guess higher!");
        } else if(guess>myNumber) {
            System.out.println("Guess lower!");
        } else {
            System.out.println("You got it!");
        }
    } while(guess!=myNumber);
}
```

Step 3: The Cleaner Game Loop

```java
public static void main(String [] args) {

    int myNumber = getRandom();
    System.out.println(myNumber);

    while(true) {
        int guess = getInteger();

        if(guess<myNumber) {
            System.out.println("Guess higher!");
        } else if(guess>myNumber) {
            System.out.println("Guess lower!");
        } else {
            System.out.println("You got it!");
            break;
        }
    }

}
```

Step 4: Features

```java
public static int gameLoop() {
    int myNumber = getRandom();
    //System.out.println(myNumber);

    int guessCount=0;

    while(true) {
        int guess = getInteger();
        ++guessCount;

        if(guess<myNumber) {
            System.out.println("Guess higher!");
        } else if(guess>myNumber) {
            System.out.println("Guess lower!");
        } else {
            break;
        }
    }
    return guessCount;
}
```

Step 4: Features

```java
public static void main(String [] args) {

    int highScore = 1000;

    while(true) {
        int cnt = gameLoop();
        if(cnt<highScore) {
            System.out.println("A new high score!");
            highScore = cnt;
        }
        System.out.println("You got it in:");
        System.out.println(cnt);
        System.out.println("High Score:");
        System.out.println(highScore);
    }

}
```