

Mirroring
Lecture 4
LAPTOP-KR67QT5I

File Edit Selection View ...

Sum.java LotteryGame2.java X

```
LotteryGame2.java > LotteryGame2 > main(String[])
3 public class LotteryGame2 {
4     public static void main(String[] args) {
9         if (n >= 300 && n <= 460) {
10             System.out.println(x: "You won a MacBook!");
11
12             if (n >= 300 && n <= 380) {
13                 System.out.println(x: "Model: M1 Mac");
14             } else {
15                 System.out.println(x: "Model: M2 Mac");
16             }
17         }
18         else if (n >= 200 && n <= 280) {
19             System.out.println(x: "You won a pack of Kurkure!");
20
21             if (n >= 200 && n <= 240) {
22                 System.out.println(x: "Flavor: Chilli Kurkure");
23             } else {
24                 System.out.println(x: "Flavor: Onion Kurkure");
25             }
26
27         }
28     }
29 }
```

← MacBook

Run Testcases 0 0 Java: Ready Ln 9, Col 36 Spaces: 4 UTF-8 CRLF { } Java Chat quota reached Go Live Prettier

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Mirroring Lecture_4

File Edit Selection View ...

Sum.java LotteryGame2.java X

```
LotteryGame2.java > LotteryGame2 > main(String[])
3 public class LotteryGame2 {
4     public static void main(String[] args) {
26
27         } else if (n >= 1100 && n <= 1500) { ←
28             System.out.println(x: "You won a Cycle!"); ←
29
30             if (n >= 1100 && n <= 1300) { ←
31                 System.out.println(x: "Brand: Avon Cycle");
32             } else { (1301 → 1500)
33                 System.out.println(x: "Brand: Hero Cycle");
34             }
35
36         } else if (n > 50 && n <= 80) { ← (50 — 80)
37             System.out.println(x: "You won a Bike!");
38
39             if (n > 50 && n <= 65) {
40                 System.out.println(x: "Model: Bullet");
41             } else {
42                 System.out.println(x: "Model: Rajdoot");
43             }
44         }
45     }
46 }
```

(not included)

50 — 65 (66 — 80) else

Run Testcases 0 0 Java: Ready Ln 18, Col 43 Spaces: 4 UTF-8 CRLF {} Java Chat quota reached Go Live Prettier

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Mirroring Lecture_4

File Edit Selection View ...

Sum.java LotteryGame2.java X

LotteryGame2.java > LotteryGame2 > main(String[])

```
3 public class LotteryGame2 {
4     public static void main(String[] args) {
38
39         if (n > 50 && n <= 65) {
40             System.out.println(x: "Model: Bullet");
41         } else {
42             System.out.println(x: "Model: Rajdoot");
43         }
44
45     } else {
46         System.out.println(x: "Better luck next time.");
47     }
48
49     sc.close(); ← // we have to close the scanner class
50 }
51
52
53
```

Run Testcases 0 0 Java: Ready Ln 38, Col 1 Spaces: 4 UTF-8 CRLF {} Java Chat quota reached Go Live Prettier

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if-else (* Macbook Range) ✓

$n \geq 300 \ \&\& \ n \leq 460$

else if * Kuxkux Range ✓ (S-11)
 else if * Cycle Range ✓ (S-11)
 else if * Bike Range ✓

→ sub conditions are

if $(n \geq 300 \ \&\& \ n \leq 380)$
 (Model m1 mac)

$(n \geq 381 \ \&\& \ n \leq 460)$
 m2 mac

then for all cases.

else → Better Luck Next Time

if $(n \geq 300 \ \&\& \ n \leq 460)$

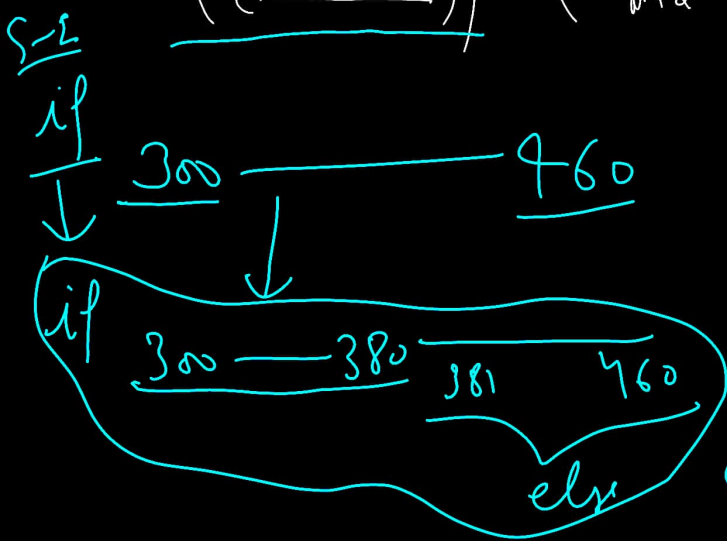
if $(n \geq 300 \ \&\& \ n \leq 380)$
 Spout ("Model m1 mac")

else Spout ("m2 mac")

else if

if () {

else →



$$\chi^2(a) = \frac{1}{2} \ln \frac{a}{a_0} + \frac{1}{2} \ln \frac{a_0}{a_0} = \frac{1}{2} \ln \frac{a}{a_0}$$

But they look just
fine

if $m = 3$ (1.5 m) \rightarrow 1.5 m

$\left(\frac{d}{dt} \left(\frac{1}{2} m v^2 \right) \right) = \frac{1}{2} m \frac{d}{dt} (v^2)$
 $\frac{d}{dt} \left(\frac{1}{2} m v^2 \right) = \frac{1}{2} m \frac{d}{dt} (v^2)$

Right Angled $\triangle \rightarrow 90^\circ$



$\rightarrow \text{rows} = 4$

Acute Angle $\triangle \rightarrow$

Ans.

$\text{row} \leftarrow 1$

$\begin{array}{cccc} * & & & \rightarrow \text{col } 1 \\ * & * & & \rightarrow \text{col } 2 \\ * & * & * & \rightarrow \text{col } 3 \\ * & * & * & * \rightarrow \text{col } 4 \end{array}$

1st row
2nd row
3rd row
(4th row)

row	col
1	1
2	2
3	3
4	4
\vdots	\vdots
n	n

$\text{row} = 1;$

while ($\text{row} \leq 4$) {

int col = 1;

while ($\text{col} \leq \text{row}$) {

System.out.print("* ");

} col = col + 1;

System.out.println();

row = row + 1;

Pattern 2 :- $\begin{array}{ccc} \downarrow & \downarrow & \downarrow \\ 1 & * & * & * \\ 2 & * & * & * \\ 3 & * & * & * \end{array} \leftarrow$

→ 3 Rows, 3 column

→ Constant = '*', Variables = rows, col

→ rows = 1 to 3

↓
(col = 1 to 3) [inside the row]

no need to
write anything

int row = 1;

while (row <= 3) {

int col = 1;

while (col <= 3) {

System.out.print("*");

col = col + 1;

}
System.out.println();

row = row + 1;

}

Col
1 2 3
1 2 3

→ 4

row → 3
col → 7

H.W.

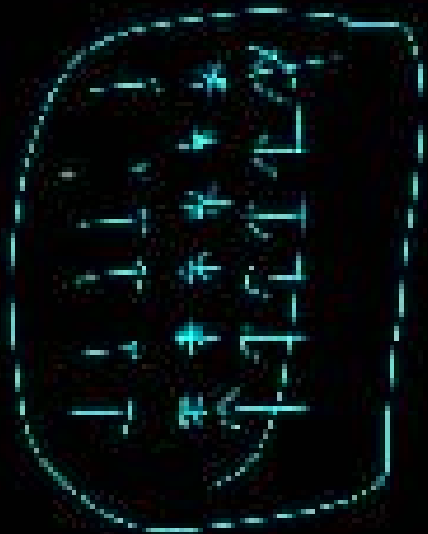
Dry Run

* * * ←

* * * ←

* * * ←





1 2 3 4 5 6 ←

1 ← 2

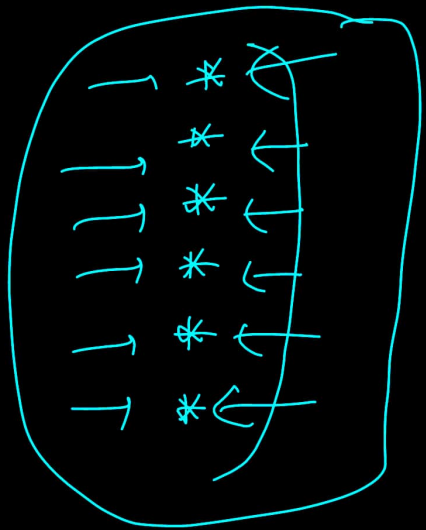
(1, 2)

$Sort(i) \leftarrow Sort\left(\frac{n}{2}\right)$

1 ← 2

1 2 3
4 5 6
7 8 9

1 2 3 4 5 6



$i = 1, 2$

* * * * * ←

$i = 7$

$\text{cout}(i); \leftarrow \text{cout}(" * ")$

→ $i = i + 1;$ * * *
* * *
* * *

int i = 1;
while (i <= 6) {

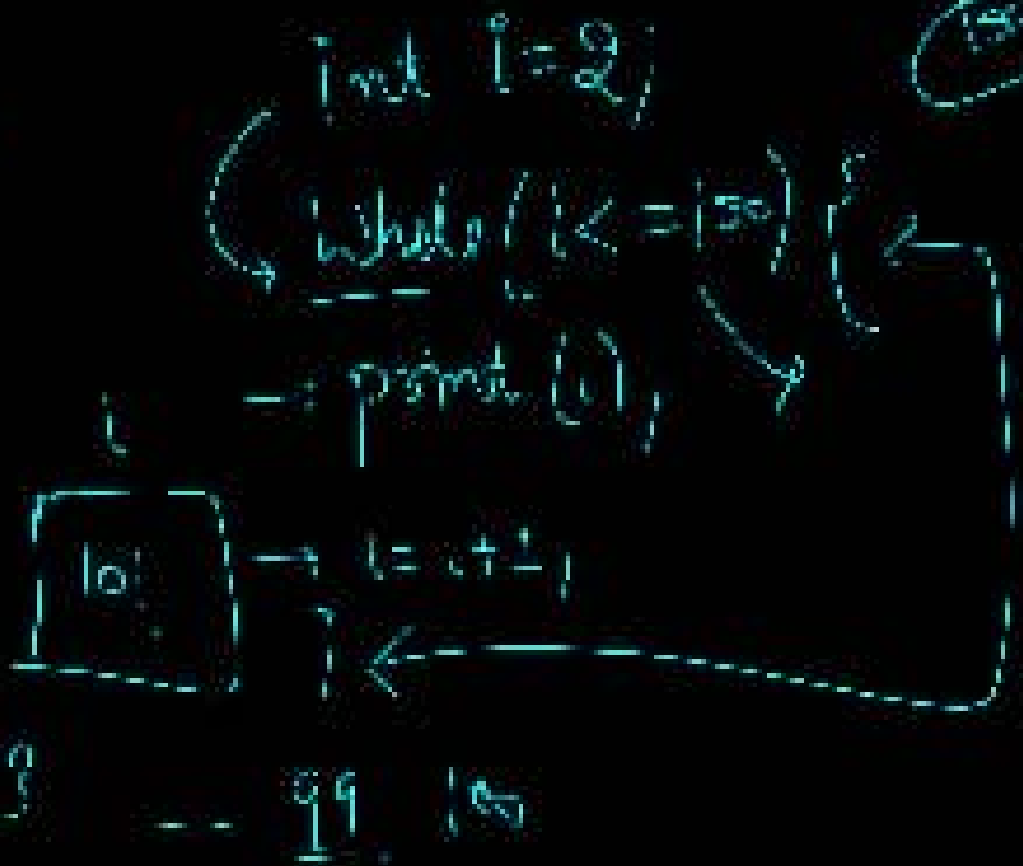
10
9
8
7
6
5
4
3
2
1
0

10
9
8
7
6
5
4
3
2
1
0

// initialization

// condition

// updation



100



row	col
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

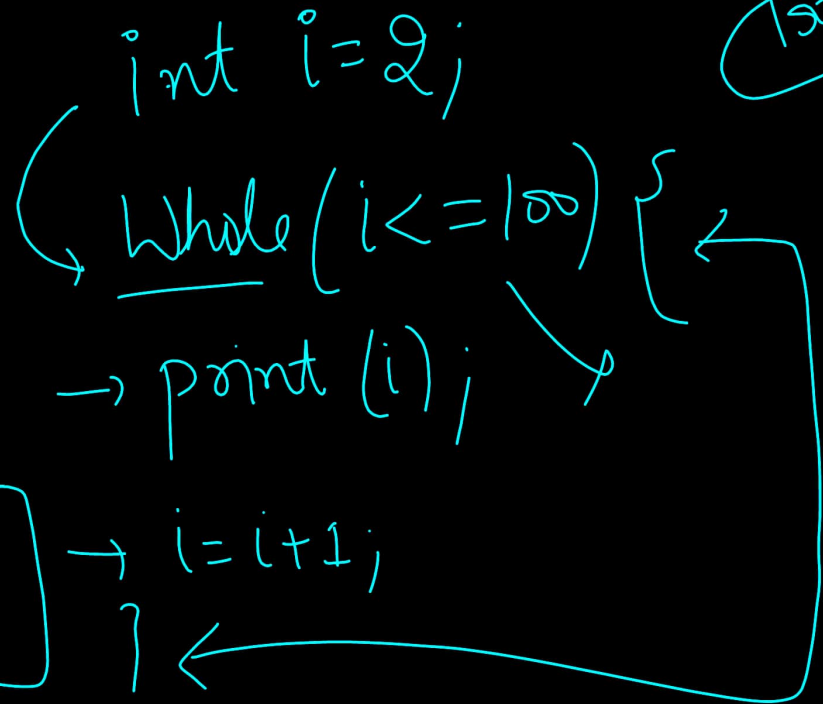
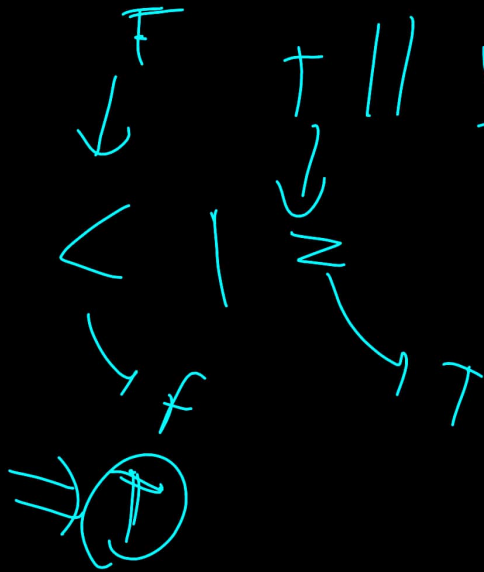
```

void insert(int data) {
    if (root == NULL) {
        root = new Node(data);
        return;
    }
    Node* temp = root;
    while (temp->right != NULL) {
        temp = temp->right;
    }
    temp->right = new Node(data);
}
  
```

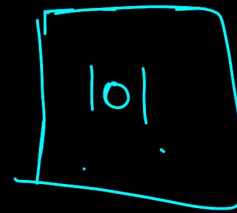
// initialisation

// condition

// update ←



100 = 100



2 3 ... 99 100