Java Mahat Exam - A4 Summary Sheet

Input / Output

Scanner in = new Scanner(System.in);

int a = in.nextInt();

String s = in.next();

System.out.print("Text");

Random Numbers

Random rand = new Random();

int r = x + rand.nextInt(y - x + 1);

Digit Sum

int sum = 0;

while (n > 0) { sum += n % 10; n /= 10; }

Check Valid String

return s.length()%2==0 &&

s.charAt(0)==s.charAt(s.length()/2) &&

s.charAt(0)==s.charAt(s.length()-1);

Is Unique Array

for (int i=0;i<arr.length;i++)

  for (int j=i+1;j<arr.length;j++)

   if (arr[i]==arr[j]) return false;

Includes X not Y

str.contains("X") && !str.contains("Y")

Brothers

msd1==msd2 && num1%10==num2%10;

Palindrome

for (int i = 0; i < str.length()/2; i++)

  if (str.charAt(i) != str.charAt(str.length()-1-i))

```
    return false;
```

Letter Palindrome

```
while (left < right) {

  skip non-letters, compare letters

  if mismatch → false

}
```

Class: Box

Box(String color, double weight)

Fields: width, height, length (random)

Methods: getColor(), getWeight()

Find Heaviest Box

loop all boxes → return color of max weight

Find Heaviest of Color

loop by box.getColor().equals(color)

track heaviest weight, return box