**HashSet**

**No duplicate and no order(random)(لايوجد تكرار و الاسماء تكون لا متسلسلة)**

**Chart, histogram

Description automatically generated**

**public** **class** Main {

**public** **static** **void** main(String[] args) {

Set<String> s = **new** HashSet<>();

s.add("dog");

s.add("abc");

s.add("fath");

s.add("baba");

s.add("zaki");

System.***out***.println(s);

}

}

**Ans: [fath, baba, abc, dog, zaki]**

**Note: If we want to convert it into in-order we will change HashSet to TreeSet**

**Ex:**

**public** **class** Pen {

String color;

Double volume;

**public** Pen(String color, Double volume) {

**this**.color = color;

**this**.volume = volume;

}

@Override

**public** String toString() {

**return** "[" + color + "/" + volume + "]";

}

}

**public** **class** Main {

**public** **static** **void** main(String[] args) {

Pen p1 = **new** Pen("red", 3.33);

Pen p2 = **new** Pen("red", 3.33);

System.***out***.println(p1.hashCode() == p2.hashCode()); // false

System.***out***.println(p1.equals(p2)); // false

Set<Object> s = **new** HashSet<>();

s.add(p1);

s.add(p2);

System.***out***.println(s); //[[red/3.33], [red/3.33]]

// note: the answer is duplicate and the reason is because they have different

hashCode and equal

}

}

To resolve this problem we will create hashCode and equal for class Pen .

In class Pen right click -> source -> Generate hashCode and equal .

And the answer will be :

True

True

[[red/3.33]]