What are the differences between iterators and for-each loops?

Iterators:

Benefit: Can modify elements in arraylist. For example: remove()

Bad: Need create iterator and manage the iteration process.

For-each:

Benefit: Read only, cannot modify elements.

Bad: Make the code cleaner.

Iterators example:

ArrayList<String> list = new ArrayList<>();

list.add(“Apple”);

list.add(“Orange”);

Iterator<String> iterator = list.iterator();

While(iterator.hasNext()){

String element = iterator.next();

If(element.equals(“Orange”)){

Iterator.remove();

}

}

For-each example:

for(String s: list){

println(s);

}

If want to modify elements in ArrayList.

You can use traditional for loop

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

list[i] = list[i] \*2;

}

🡨----------Correct

for(String s: list) {

s = s \* 2

}

🡨---------------This cannot modify the elements in for each

Iterator cannot modify the elements , only can remove()

If want to modify the elements, use ListIterator()

ListIterator<String> listIterator = list.listIterator();

while (listIterator.hasNext()) {

String element = listIterator.next();

if (element.equals("Banana")) {

listIterator.set("Blueberry"); // Modify element

}

}

// Adding an element

listIterator.add("Date")