$exercise8_{1DV507}$

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1 exercise6

- 1. I created 2 test string, one is for short string test and another is for the long string test
- 2.Do the test, add 5 times and divide by 5 to be the result. Do the while loop when the estimated nanosecond time is more than 10⁹ nanoseconds, break.
- 3. print out

```
short strings long strings
concatenating 179743 15121
appending 263191 30500
```

With the following codes:

```
String result="";
result+="ok";
when the codes are running, the calculating
process is the code below:
String result="";
StringBuffer temp=new StringBuffer();
temp.append(result);
temp.append("ok");
result=temp.toString();
The string class is immutable.
```

2 exercise7

- 1. array for integer and string
- \bullet 2.Do the test, add 5 times and divide by 5 to be the result. Do the while loop when the estimated nanosecond time is more than 10^9 nanoseconds, break.

• 3. print out

	integers	strings
insertion sort	9463446	478378
merge sort	2238346	1231495

we can see when sorting the integer array, insertion sort is faster but when string string array, the merge sort is faster.