

Resursion

and functions call itself





























































































































































































































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Recursion

a function calls itself

```
/**
 * Eliminates duplicate chars from a String
 * E.g.: deduplicate("abcbaabc") is "abc"
 */
fun deduplicate(s: String): String = run {
    fun dedup(s: String, acc: String): String = when {
        s.isEmpty() -> acc
        s.first() in acc -> dedup(s.drop(1), acc)
        else -> dedup(s.drop(1), acc + s.first())
    }
    dedup(s, "")
}
```

Recursion

watch out the stack frames

```
/**
 * Eliminates duplicate chars from a String
 * E.g.: deduplicate("abcbaabc") is "abc"
 */
fun deduplicate(s: String): String = run {
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    }
    dedup(s, "")
}
```