

Tecnologias Emergentes em Jogos

Engenharia em Desenvolvimento de Jogos Digitais

Ficha 8

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1. Assume that you have an array of the string and need to have few data beforehand like:

- Total Character Count
- Word Count
- Number of Character in each Word

```
let arrayString:[String] = ["The Godfather", "The Shawshank Redemption" ,  
"Schindler's List" , "Raging Bull" , "Gone with the Wind" , "The Wizard of Oz" ,  
"Lawrence of Arabia" , " Forrest Gump"]
```

Extend the functionality of Array to implement these features.

```
print(array.totalCharacterCount()) // 128  
print(array.wordCount()) // 22  
print(array.wordCharacterCount()) // [13, 24, 16, 11, 18, 16, 18, 12]
```

2. Extend also the functionality of Array to calculate: the sum of array elements; and convert the numerical array to string array.

```
let numArray = [1,2,3,4,5,6]  
print(numArray.sum()) // 21  
print(num.string()) // ["1", "2", "3", "4", "5", "6"]
```

3. Consider the following structure:

```
struct Person  
{  
    var name:String  
    var age:Int  
    var salary:Double  
}
```

```
let person1 = Person(name:"John" , age:40, salary: 932)  
let person2 = Person(name:"David" , age:45, salary: 1876)  
let person3 = Person(name:"Jim" , age:30, salary: 1763)  
let person4 = Person(name:"Tom" , age:28, salary: 1527)  
let person5 = Person(name:"Harry" , age:50, salary: 13344)
```

```
var personArray:[Person] = [person1,person2,person3,person4,person5]  
personArray.map{print("Person-Age :- \($0.age)")} 
```

Now you want to rearrange Array based on: salary; and age. Create extensions to allow such feature.

```
let reArrangedPersonByAge = personArray.arrangePersonsByAge()  
reArrangedPersonByAge.map{print("Person-Rearranged-Age :- \($0.age)")} }
```

```
let reArrangedPersonBySalary = personArray.arrangePersonsBySalary()  
reArrangedPersonBySalary.map{ print("Person-Rearranged-Salary :- \($0.salary)") } }
```