

### CS 3B RASM-3

All returned values are in the X0 register: dwords returned in X0, words returned in W0. All reference variables are returned in the X0 register since they are always addresses.

In EVERY case below, if the method returns String, you must return the address of a dynamically allocated string of bytes within the method.

Member 1- write the below methods in a file **String1.asm**

```
+String_length(string1:String):int  
+String_equals(string1:String,string2:String):boolean (byte)  
+String_equalsIgnoreCase(string1:String,string2:String):boolean (byte)  
+String_copy(string1:String):String => +String_copy(lpStringToCopy:dword):dword  
+String_substring_1(string1:String,beginIndex:int,endIndex:int):String  
+String_substring_2(string1:String,beginIndex:int):String  
+String_charAt(string1:String,position:int):char (byte)  
+String_startsWith_1(string1:String,strPrefix:String, pos:int):boolean  
+String_startsWith_2(string1:String, strPrefix:String):boolean  
+String_endsWith(string1:String, suffix:String):boolean
```

Member 2 write the below methods in a file String2.asm

```
+String_length(string1:String):int  
+String_indexOf_1(string1:String,ch:char):int  
+String_indexOf_2(string1:String,ch:char,fromIndex:int):int  
+String_indexOf_3(string1:String, str:String):int  
+String_lastIndexOf_1(string1:String, ch:char):int  
+String_lastIndexOf_2(string1:String,ch:char,fromIndex:int):int  
+String _lastIndexOf_3(string1:String,str:String):int  
+String_concat(string1:String,str:String):String  
+String_replace(string1:String,oldChar:char,newChar:char):String  
+String_toLowerCase(string1:String):String  
+String_toUpperCase(string1:String):String
```