

Unit 06_005 – Syntax

Video Length 12:45

1. What is the difference between `.ascii` and the `.asciz` directive?
2. How many bytes would the command `.ascii "dog"` allocate?
3. How many bytes would the command `.asciz "dog"` allocate?
4. The code below declares a string. Write the declaration of `len` that has the assembler calculate the length of word.

```
message: .ascii "Hello, World!"  
len:     .quad
```

5. Modify the code below to load the address of `message` into the `rdi` register.

```
movq letters, %rdi
```

6. Modify the code below to load the contents of `rdi` into the `r8b` register.

```
movb %rdi, %r8b
```

7. Consider the previous two questions. One of them was moving a quad. The second was only moving a byte. Explain why.

Unit 06_010 – Syscall

Video Length 11:30

8. What is `syscall`? Why do we need it?

9. Suppose you wanted to convert a program written for x86-64 to run on an ARM processor. Would syscall need to be adapted to run on ARM?
10. What three registers will we be using to communicate with syscall?
11. If syscall is considered a function call, how are parameters passed to the function?

If you have any lingering questions or problems, please write them here or see me.

