COMP1521 Week 3

Welcome!!!

Overview

- Assignment 1 released
- Debugging in MIPS
- Arrays in MIPS
- Worked examples
- Style

Debugging mips tips

- Take it line by line
- Write down what is changing in each register
- Remember to write comments for easier debugging
- For large programs such as you assignment
  - Use breakpoints and mipsy to find the approximate position of your bug
  - Use printf to find the approximate position of your bug
- Take a break ✌️

Tutorial Q2

What	Bytes	Bits	Usually used to store
Byte	1	8	char, 8-bit integers
word	4	32	int, 32-bit integers

Arrays

char array = “array”

Address	0x10010000	0x10010001	0x10010002	0x10010003	0x10010004
Index	0	1	2	3	4
Value	a	r	r	a	y

&array[2] = &array + 2

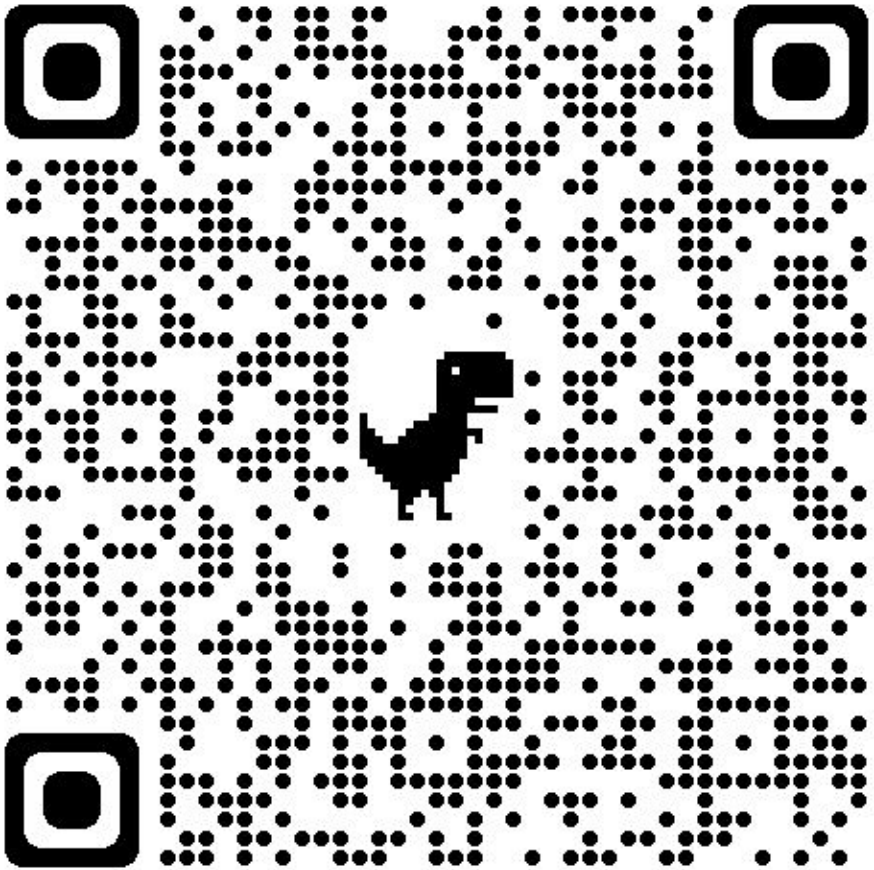
int array = [5, 1, 20, 3, 2]

Address	0x10010000	0x10010004	0x10010008	0x1001000C	0x10010010
Index	0	1	2	3	4
Value	5	1	20	3	2

&array[2] = &array + 2 * 4 = &array + 8

MIPS style thing

- Informative labels
- Tabs vs spaces
- Commenting
- Indentation
- White space
- **CONSISTENCY (MOST IMPORTANT FOR ALL OF THE ABOVE)**



Code: apple