Comp1521 Week 1

Welcome!

Admin!

Intros

- Name

- What are you studying?

- Fun fact (optional)

My email: a.brew@student.unsw.edu.au

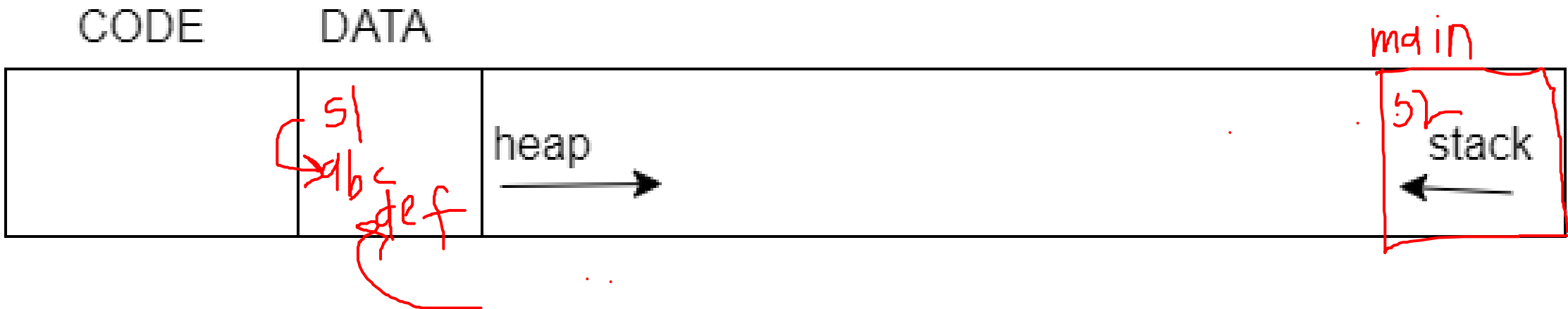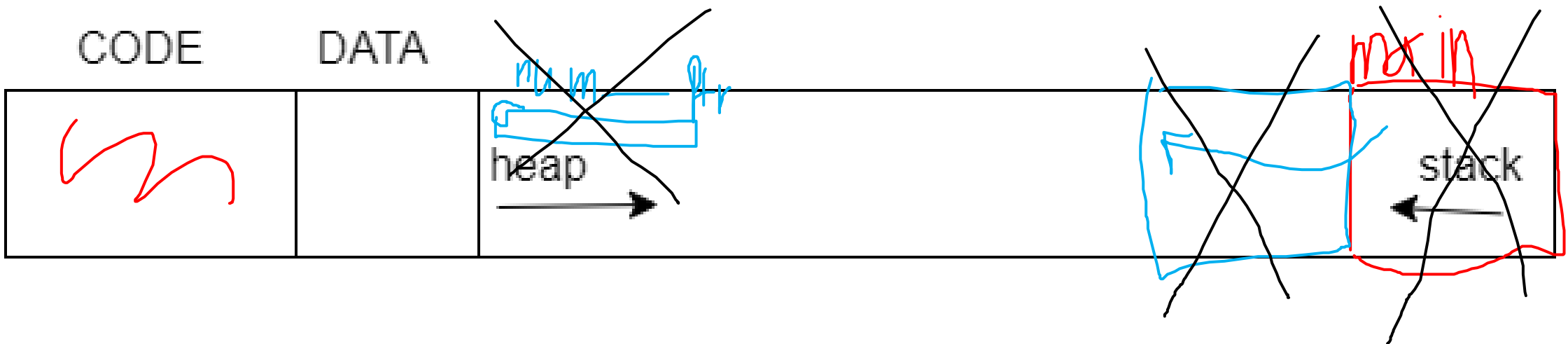Class Website: https://cgi.cse.unsw.edu.au/~cs1521/24T3/

Course Forum: https://discourse-qa.cse.unsw.edu.au/

Memory

```c
#include <stdio.h>

char *s1 = "abc";

int main(void) {
  char *s2 = "def";
  // ...
}
```

CODE   DATA

main

| | | heap | | stack |

s1
abc
def

s2

Pointers

CODE   DATA   heap →   stack ←

Pointers (review)

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```c
int number = 9;               // create an integer
int *num_ptr = &number        // & => get address of a variable
int x = *num_ptr              // dereference, or get value at a pointer
*num_ptr = *num_ptr + 10;     // increase number by 10
printf("%d", number);         // will print 19
```

CODE   DATA

		heap ⟶ stack ⟵

Strings

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```c
#include <stdio.h>

int main(void) {
    char str[10];
    str[0] = 'H';
    str[1] = 'i';
    printf("%s", str);
    return 0;
}
```

'H' 'i'

CODE   DATA

heap →

stack ←

OS

main:

look at $ra

list o()
jr $ra