

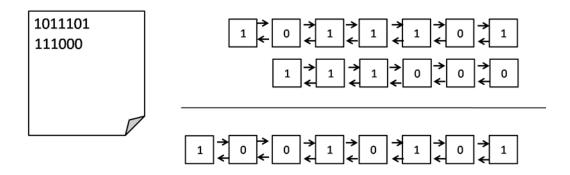
INFO216

Imperative Programming II

Lab Exam 10.11 Mon. 6 jun. am Duration: 45 min.

Group	<u>1</u>
Name:	
<u>ld:</u>	
Pc-place:	

- 1. Inside the D partition, create a folder by your student id and place your project solution in it.
- 2. Define the type "node" for a circular doubly linked list of characters.
- **3.** Write a function "push" that takes a character and pushes it into a circular doubly linked list of characters.
- **4.** Write a function "load" that reads a text file, and constructs two circular linked lists of characters as shown in the figure below. Remember, it is easy to push to tail in a circular list.



We suppose that the characters are either '0' or '1', thus the lists can be considered as binary numbers representation.

- **5.** Write a function "add" that, given two binary representation lists, creates and returns a new list representing the binary addition of the two lists. The new list should be made with its own memory the original lists should not be changed. Trick: begin your work from tail to head.
- **6.** Write a function "print" that displays a doubly circular linked list.
- 7. Try your program on the example in the figure above; create and fill the text file by yourself.
- **8.** Save your solution in a folder named by your student id inside the D partition.

The End