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Lab 5: arrays and files

# Objectives:

* The definition of static allocation
* The definition of dynamic allocation
* Calculating addresses
* Open and edit and write to files

# Introduction:

We learned the definition of the static allocation where the user can save place any where in the code using the labels, and we talked about the static allocation by using the MIPs instructions with comparisons, and we fund that there is a way to calculating the addresses , finally we learned how we can open and write and read files in assembly.

# Tasks:

Task1 Requirement: encrypting of specified string

Approach: firstly, we do the given algorithm and write it in assembly using loops, then check for the input with the specified size and then encrypt it after saving it

Task2 Requirement: reading specified file and open it and write the integers in it

Approach: firstly, we read the input from the user which is the file name then we enter the file name to a loop and end it with null then we open the file the read the insides then save it in allocated memory and then loop this memory and just print the integers

# Conclusion:

Firstly, we learned the definitions and the difference between the static and dynamic allocation , then learned some important instructions, and learned to do address calculations assembly and how it possible then tried live example.