First, create an account on replit.com and then create a new project, C language, and then write out this program and run it: (if you want to use the CI project, VS code, or commandline OSX, etc, free free)

A screenshot of a computer program

Description automatically generated

Look at what this program is doing.

Then, now we need to turn this into a MIPS program that carries out the same thing (without the printing).

Here is a template to use:

A screenshot of a computer program

Description automatically generated

Here is the actual code, if you want to copy paste it as a starting place.

# Tell assembler to not insert instructions to fill branch delay slots.

# This is necessary when branch delay slots are disabled.

.set noreorder

# this is what we need to do

# int A[] = {1,2,3,4};

# int B[] = {5,6,7,8};

# int C[4];

# int i; int dp = 0;

# for(i=0; i<4; i++) {

# C[i]=A[i]+B[i];

#

# }

.global \_start

\_start:

# use t0 as the base address of A

# use t1 as the base address of B

# use t2 as the base address of C

# initialize any variables you need here

# outside of the looop

FOR: # write a loop here

# end the program

END:

j END

.data

A: .word 1,2,3,4

B: # you need to finish this out

C: # you need to finish this out too

**Submission:**

PART I

Write a report that contains screenshots proving that you wrote the C program, but change the name of the array variables to X, Y and Z. Also put comments int it with your name, etc. Then take screenshots.

PART II

Write the MIPS program, and verify it works by looking out in memory and providing that C contains the correct contents.

Take screenshots, highlight where A, B and C start and end, Put the addresses of where the first BYTE for each starts and the last BYTE in the range. Make it clear. State, in HEX what these addresses are. How you know for sure.

Take report AND your .C and .S files and submit in a single ZIP.