**COMP 3315 PreLab5: Procedure Calls**

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1. **Object**: MIPS Procedure call conventions
2. **Procedure**:

Write and run a MIPS algorithms that inputs an array of integers at data segment *arr1* and the code finds the inverse of these integers and stores them in *arr2* and prints *arr2*. (arr2 must be on different memory address)

Try to use procedure (Function) and name it as“*invert”. This procedure* takes a single integer as input and returns the inverse of it. Call invert for each value in *arr1*.

*If you can’t use procedures you can do everything in main.*

**Example**: *arr1*: .word 5, -1, 4, -3

*Output*: -5, 1, -4, 3

*Final arr2: -5, 1, -4, 3*

Write the C code first and then convert it to MIPS code and the output with short comments in the box below.

int main(){

int i;

int arr1[4] = {5, -1, 4, -3};

int arr2[4];

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

arr2[i]=arr1[i]\* -1;

}

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

printf("%d", arr2[i]);}

}

return 0;

}