CSE 331 – COMPUTER ORGANIZATION

Assignment 1 Report

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This is a MIPS assembly program that finds number of pairs which is divisible to given integer.

When we run the program, firstly it asks size of array. User should enter an integer between 2 and 100. If not, it asks size input again. After that, it starts to ask elements for array. Elements should be entered one by one, not as one-line string. Inputs should be between 1 and 100. If not, it asks again for that index. After inputting ‘n’ integer, user should be input divisor between 1 and 100. Then, program will print the result.

Here, I inputted ‘6’ for the size of array. Then set elements one by one. My array is 1 4 2 6 1 2

As we can, it prints all divisible pairs. And result is 6.

```
Enter size of the array: 6
Enter elements in the array: 1
4
2
6
1
2
Enter k integer divisor : 3
 ##################################################
 ##################################################
( 1 + 2)  = 3

( 1 + 2)  = 3

( 4 + 2)  = 6

( 4 + 2)  = 6

( 2 + 1)  = 3

( 1 + 2)  = 3

RESULT : 6
```

Q2 -) As default, when we calculate the execution time of program, we can find this

((50 x 2) + (30 x 4) + (20 x 3)) x 10^6 = 28 x 10^7

If we improve J-type with %50, we will have 22 x 10^7 execution time. So this is %27 improvement.