

Lab 7

Write a MIPS program using the provided starter code.

- Write code to load *x, y, z*, and *q* into \$s0-\$s3 with *lw* using *labels*.
- Print the values in \$s0-\$s3 with appropriate text description.
- Write code to load the 4 integers starting at label *a* into \$s0-\$s3 using *register indirect*. You must use *register indirect* access or you will not receive full points.
- Print the values in \$s0-\$s3 with appropriate text description.
- Write code to load the 4 integers starting at label *e* into \$s0-\$s3 using *register indirect plus offset*. You must use *register indirect plus offset* or you will not receive full points.
- Print the values in \$s0-\$s3 with appropriate text description.
- You may not add additional labels to the data section.

Example output:

```
The value in $s0 is : 10
The value in $s1 is : 15
The value in $s2 is : 7
The value in $s3 is : 8
The value in $s0 is : 2
The value in $s1 is : 4
The value in $s2 is : 6
The value in $s3 is : 12
The value in $s0 is : 5
The value in $s1 is : 10
The value in $s2 is : 15
The value in $s3 is : 20
```

The following are required for all assignments and are included in the rubric for grading:

- You need to name your file as “LastName-Name-Lab7.asm” (Example: Talley-MichelleLab7.asm)
- Your program will need to have the exact output unless otherwise stated. ***Make sure to use spaces and newlines as required.***
- Your source needs to have comments that explain your implementation.
- Your procedures need to have comments like this:

```
#####
# printMsg #
Parameters:
#   $a0 - message to display
# Returns:
#   none
```

- You need to include a jump statement at the end of your mainline to jump around your procedures.

```
j exit
```

And a label to exit to at the end of your program:

```
exit: li $v0, 10 syscall
```

- You need to include the following set of comments at the top of your source code for all assignments.

```
#Your Name
```

```
#Lab # (Example: Lab #7)
```

- You need to submit your source code on blackboard.