Assignment 4

Apply your knowledge of loops in MIPS to write a program that will print a triangle based on user input:

- **printTriangle**: Write a procedure that will accept the edge length of the base of the right triangle as argument $a0. It will then print the triangle with hashtags. For instance, if 6 is given by the user as an input, the program will print hash tags (#) starting with one hashtag up to six to create the triangle.

- Your mainline program will ask the user the edge length of the base of right triangle.

- If user enter 0 or a negative number, the program exits cleanly.

- Otherwise, the program will pass the edge length value in $a0 to the **printTriangle** procedure, which will print the triangle as described.

- The mainline code will then loop back to ask the user for a new edge length.

- The example execution and the shape of the triangle is given below.

Example Execution and the Output:

```
Please enter the edge length of the base of right triangle: 5
#
##
###
####
#####
Please enter the edge length of the base of right triangle: 8
#
##
###
####
#####
######
#######
########
Please enter the edge length of the base of right triangle: 0
Exiting the program.
```

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

- You need to name your file as “LastName-Name-Assign5.asm” (Example: Talley-Michelle-Assign4.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

- You need to make sure you exit your program and avoid calling procedures unnecessarily.
- You need to include the following set of comments at the top of your source code for all assignments.

```
#Your Name
#Assignment # (Example: Assignment #4)
```

- You need to submit your source code on blackboard.
- Please submit your files in a zip file named LastName-FirstName-Assign4.zip) and make sure you include any files that are used as includes in the zip file (Example: utils.asm).