

**Project Name: Adding Y86 Code**

Your task is to write program Adding.y8 in Y86-64 assembly language that adds all integers in the range [x,y] where x and y are positive integers, i.e. adds this sequence of integers: x, x+1, x+2, ..., y-2, y-1, y, but only if  $y \geq x$ . If  $x > y$ , sum is zero.

Your Y8-64 code should have init, main and add functions. Main calls add function as follows:

```
sum=add(&x, y);
```

x is a local variable in main function and y is a global variable, and sum in another global variable.

You should appropriately comment your assembly code.

First compile your Adding.y8 using command: `yas Adding.y8`

Once you do not have compilation errors, run your code using ssim simulator and check, i.e. make sure, that your program works correctly. You should be able to understand contents of registers and memory.

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**Submissions:**

a. your source code in file Adding.y8 using command:

***submit c2421ac lab6 Adding.y8***

b. a hard copy of your Adding.yo file and the output of command ***"yis Adding.yo"***, with explanations for contents of displayed registers and memory locations.

Due date: Friday, November 17, 2017.