ENGR-304-L

Software Lab 04
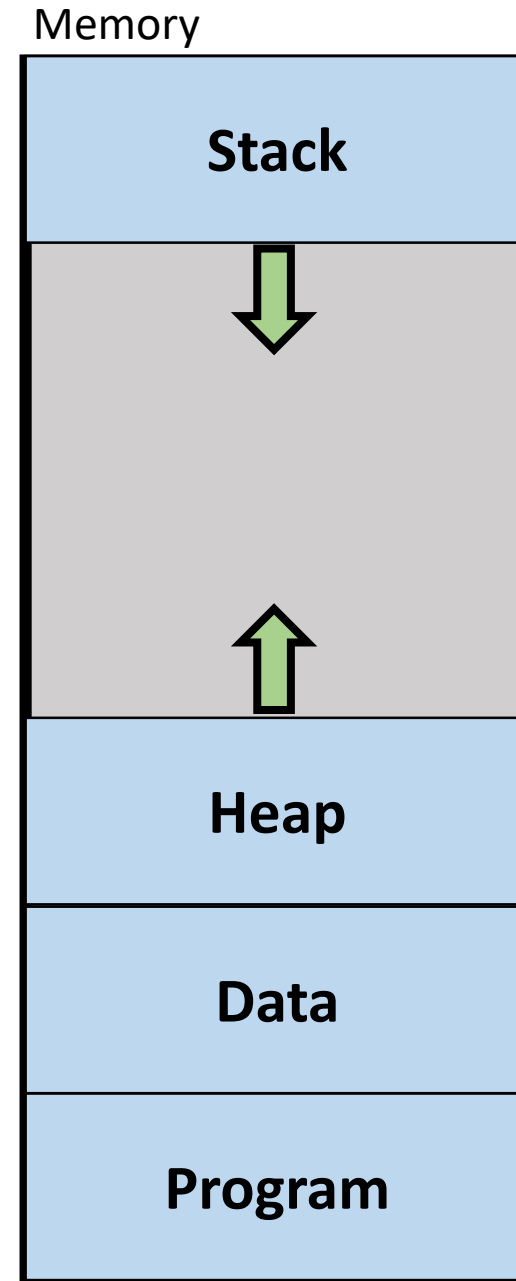
Agenda

1. Attendance
2. Recap
3. Memory Diagram
4. Getting Started

Recap

- Assembly functions are "special" labels using call & ret
- The NIOS register table specifies "agreed upon" usage for each register
- The stack is memory used to protect values of registers when function calls are made, important when programs require more memory than available in just registers
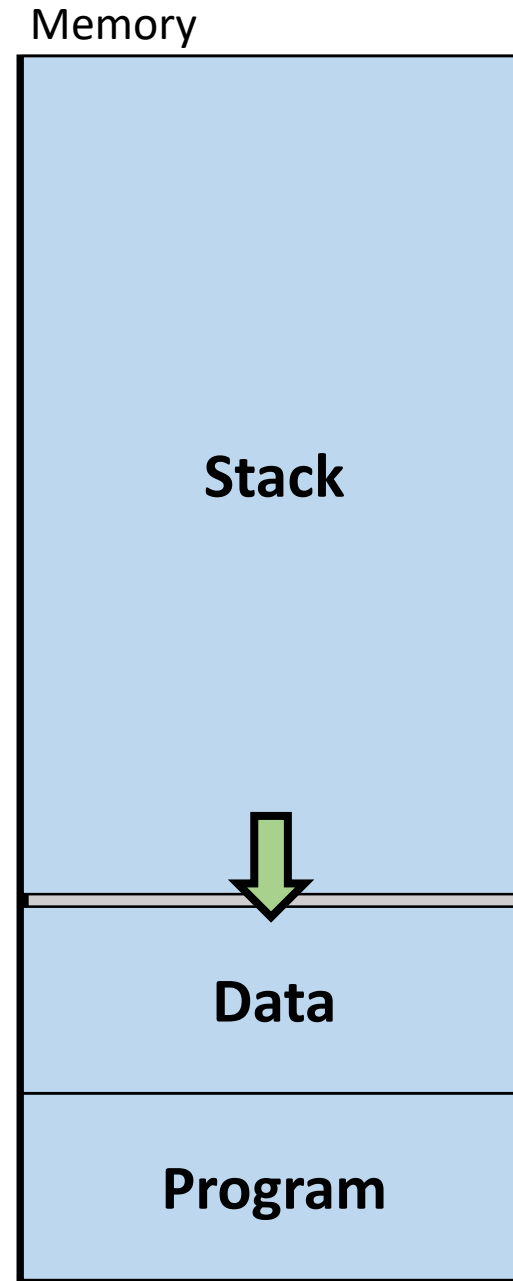
Memory Diagram

Memory

Stack
⬇⬆
Heap
Data
Program

Memory Diagram

Memory Diagram

Memory

Stack

Data

Program

Lab SW04 Tips

- Refer to Lab SW 03 reference materials, SW 04 is similar

- Use only the n=0 recursive base case for SumCalc function

- Refer to the NIOS summary reference "registers table"

- Refer to "NIOS Processor Stack" slide deck for details on assembly functions & stack usage

Getting Started

1. Setup project directory for SW04 on the **H: drive**

2. Download SW04 files from Moodle or S: drive

3. Also locate the reference files from SW03

4. Start following directions in the lab assignment document