# Project 1 Observations

### Initial Test Program:

* During initial code run EAX is altered from random characters to containing the information that was originally in memory as “number”. Then the registers change once again as the number in EAX is added to 158 and the sum is moved into EAX, this changes the flag register as well to indicate that there was no overflow. After this the sum is moved into the memory address reserved for “sum”. Then EAX is changed to zero and the program is ended. Throughout this process the register EIP is being changed after each line to indicate where the next instruction set is located.

### Adding two values stored in memory:

* The code is run and starts by editing the EAX register and transferring into it the number that was initially stored in memory under the name “number”, having a value of -105. Next the register EBX is modified to contain the number that was initially stored in memory under the name “numbertwo”, having a value of 100. Afterwards the contents of EBX and EAX are added together and the result is deposited into EAX, the EFL register is also altered indicating a successful addition. The result is then copied from EAX to “sum” in memory. The value in EAX is then changed to 0 before terminating the program. Throughout this process the register EIP is being changed after each line to indicate where the next instruction set is located.

### Adding two values stored in memory and then adding a third number to the sum:

* The code is run and starts by editing the EAX register and transferring into it the number that was initially stored in memory under the name “number”, having a value of -105. Next the register EBX is modified to contain the number that was initially stored in memory under the name “numbertwo”, having a value of 100. Afterwards the contents of EBX and EAX are added together and the result is deposited into EAX, the EFL register is also altered indicating a successful addition. Following this, the number stored in memory as “numberthree” is moved into the register EBX, having a value of 101. Again, the contents of EBX and EAX are added together and the result is deposited into EAX, the EFL register is also altered indicating a successful addition.The result is then copied from EAX to “sum” in memory. The value in EAX is then changed to 0 before terminating the program. Throughout this process the register EIP is being changed after each line to indicate where the next instruction set is located.