**Project Report**

Group Member Names:

NAFIZ IMTIAZ,

CESAR FRANCO,

JIGAR PATEL

Project 1 – In project 1, we have to program a loop that calculates the first seven values in the Fibonacci number sequence {1, 1, 2, 3, 5, 8, 13}. We placed each value in the EAX register and we have display it by using the call DumpRegs to dump the registers inside of the loop.

A computer screen capture

Description automatically generated with medium confidence

Project 2 – In project 2, we have reversed the character order of a string using indirect addressing from source to target. We used LOOP instruction to go through the string and used OFFSET to determine the addresses. We used LENGTHOF to find out the number of elements in the declaration and SIZEOF to determine the byte occupied by the elements.

A screenshot of a computer

Description automatically generated with medium confidence

Project 3 – In project 3, we have to use a loop that is indirectly or indexed address in order to reverse the elements of an integer array that is in place. We are not allowed to use the same elements as other arrays. We created the program to be as flexible as possible if the array size and type were to change later on in the future. To accomplish this, we used SIZEOF operator to help us determine the total number of bytes by an array initializer. We used TYPE operator to assist us in determining the size (which will be in bytes) that each element has in an array. We used LENGTHOF to find the number of elements present in an array. Finally, we used DumpMem method from the Irvine32 library to modify the array. Text

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