Laboratory Exercise 3: Prime Numbers on List

Introduction

Prime numbers are characterized by its property that it can only be divisible by 1 and itself. Their unique property has been used in numerous fields especially cryptography in which they are used as public and private keys.

Learning Outcomes:

- Implement an assembly code to if an integer is prime number or not.
- Check a list if prime or not and store the corresponding result in memory.

Problem Background:

Declare an array of 15 bytes with values according to your preference.

Make another 15 bytes of values with duplicates of zero.

Write a procedure to determine if a byte entry is prime or not. Store a result of 1 if prime, and zero if otherwise.

On another procedure, determine if the declared items on the memory are prime or not using the procedure you've created earlier and store the corresponding result to the zero duplicates memory location. Call this procedure on main procedure.

Example:

```
byteList db 2,5,3,13,44,4,8,9,10,12,13,16,14,17,10

; prime list after operation
boolPrime db 1,1,1,1,0,0,0,0,0,0,1,0,0,1,0
```