Assembly Programming

Lesson 16

Loop programming exercise

Write an assembly language program that displays integer numbers from 0 to 9.

- Work in your groups, and each group will make a presentation of their work
- Presentations will be during Friday class session
- Each group will have 10 minutes of presentation
- The work will be marked out of 10

Important instruction codes

- Loop: CPU has an instruction for loops called loop

- Loop has 2 requirements:
    1. Label to loops to
    2. Counter, ecx (Extended Count) register

Example for incrementing the counter

```
        xor     ecx, ecx
RottenApple:
        PrintText "Oh no, not rotten Apples!"
        inc     ecx

cmp  ecx, 10
        jne     RottenApple

        PrintText "Please no more rotten apples!"
```

Example for decrementing the counter

```
        mov     ecx, 10
EatGreenApple:
        PrintText "Green Apple, tart but yummy"

        dec     ecx

        jnz     EatGreenApple
        PrintText "I ate 10 green apples, I have a tummy ache now"
```