

Real Time College

Bitfields and unions

1.
 - Declare type integer with 4 bytes, with an option to be signed and unsigned.
 - Create access for variable signed byte.
Example: var1.sign

2. Create a short variable.
 - Each 4 bits has to have its own access
 - Each access has to be positive.
 - The variable has to be as regular short

3.
 - Create a program that sets specific bit without affecting other bits.
 - Create a program that clears a bit without affecting other bits.
 - Create program using two first codes but to a group of bits.
Example: set a group of bits from 3 – 5 without affecting the others.

4. Implement the following function:

```
Int ChangeBit(int * a, int BitNumber);
```

The function receives integer variable and a bit (0 – 31) and swaps the bit.
If the function succeeds it returns the value after change, otherwise returns -1.
Implement it the most optimal way you can, without checking the bit.