Data Definition

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WHEN DECLARING DATA TYPES, IT DEPENDS ON THE SYSTEM ARCHITECHURE, SO IF A SYSTEM IS 8 BITS THE DATA DIRECTIVE WOULD BE SBYTE

BYTE SBYTE - 8 bits
WORD SWORD- 16
DWORD SDWORD - 32
QWORD TBYTE - 64

Syntax for data definition:

(NAME) (DATATYPE DIRECTIVES) (INITITALISATION)

```
VAl BYTE 10
```

if one want to leave the variable *undefined* a "?" is left in the initialization section

```
val byte ?
```

Name can be any user defined name

Storing arrays of constants of the same data types.
VAL BYTE 1, 2, 3, 4

Defining a string:
VAL BYTE "I am a girl"

> ≡ **Example**
>
> A program that will declare four variables for a 32bit system, it will add two of the values together and subtract the third from the addition, the store the answer in the fourth variable
>
> ```
> .DATA
> VAR1 DWORD 100b
> VAR2 DWORD 111b
> VAR3 DWORD 010b
> VAR4 DWORD ?
>
> .START
> ADD VAR1, VAR2
> SUB VAR1, VAR3
> MOVE VAR4, VAR1
> or
> ADD Ax, VAR1, VAR2
> ```

```
SUB Ax, VAR3
MOV VAR4, Ax
```