ABC by Example: Struct (Top-Down Approach)

```
@ <stdio.hdr>

struct Foo
{
    a: int;
    b: int;
    c: int;
};

fn main()
{
    local foo: Foo;

    foo.a = 42;
    foo.b = 13;
    foo.c = 123;

    printf("foo.a = %d\n", foo.a);
    printf("foo.b = %d\n", foo.b);
    printf("foo.c = %d\n", foo.c);
}
```

```
MCL:tmp lehn$ abc ex1.abc
MCL:tmp lehn$ ./a.out
foo.a = 42
foo.b = 13
foo.c = 123
```

```
@ <stdio.hdr>

struct Foo
{
    a, b, c: int;
};

fn main()
{
    local foo: Foo;

    foo.a = 42;
    foo.b = 13;
    foo.c = 123;

    printf("foo.a = %d\n", foo.a);
    printf("foo.b = %d\n", foo.b);
    printf("foo.c = %d\n", foo.c);
}
```

```
MCL:tmp lehn$ abc ex1.abc
MCL:tmp lehn$ ./a.out
foo.a = 42
foo.b = 13
foo.c = 123
```

```
@ <stdio.hdr>

struct Foo
{
    a, b, c: int;
};

fn main()
{
    local foo: Foo = {42, 13, 123};

    printf("foo.a = %d\n", foo.a);
    printf("foo.b = %d\n", foo.b);
    printf("foo.c = %d\n", foo.c);
}
```

```
MCL:tmp lehn$ abc ex1.abc
MCL:tmp lehn$ ./a.out
foo.a = 42
foo.b = 13
foo.c = 123
```

```
@ <stdio.hdr>

struct Foo
{
    a, b, c: int;
};

fn main()
{
    local foo: Foo;

    foo = {42, 13, 123};

    printf("foo.a = %d\n", foo.a);
    printf("foo.b = %d\n", foo.b);
    printf("foo.c = %d\n", foo.c);
}
```

```
MCL:tmp lehn$ abc ex1.abc

    foo = {42, 13, 123};
          ^^
ex1.abc:13.11-13.12: error:
expected non-empty assignment
expression
```

```
@ <stdio.hdr>

struct Foo
{
    a, b, c: int;
};


fn main()
{
    local foo: Foo;

    foo = (Foo){42, 13, 123};

    printf("foo.a = %d\n", foo.a);
    printf("foo.b = %d\n", foo.b);
    printf("foo.c = %d\n", foo.c);
}
```

```
MCL:tmp lehn$ abc ex1.abc
MCL:tmp lehn$ ./a.out
foo.a = 42
foo.b = 13
foo.c = 123
```

```
@ <stdio.hdr>

struct Foo
{
    a, b, c: int;
};


fn main()
{
    local foo: Foo;

    foo = Foo{42, 13, 123};

    printf("foo.a = %d\n", foo.a);
    printf("foo.b = %d\n", foo.b);
    printf("foo.c = %d\n", foo.c);
}
```

```
MCL:tmp lehn$ abc ex1.abc
MCL:tmp lehn$ ./a.out
foo.a = 42
foo.b = 13
foo.c = 123
```

```
@ <stdio.hdr>

struct Foo
{
    str: array[12] of char;
    val: int;
};

fn main()
{
    local foo: Foo = {"Michael", 42};

    printf("foo.str = %s\n", foo.str);
    printf("foo.val = %d\n", foo.val);
}
```

```
MCL:tmp lehn$ ./a.out
foo.str = Michael
foo.val = 42
```