**YAL (Yet Another Language)**

The following program is written in the YAL language that we are going to develop this semester (Fall 2013) in the Compiler Construction course offered here at FAST-NU Lahore:

**function max(integer[] a, integer n) returns integer**

**begin**

**integer m; \*\*\* index of max \*\*\***

**integer i;**

**m <- 1;**

**i <- 2;**

**while i <= n**

**begin**

**if a[i] > a[m]**

**begin**

**m <- i;**

**end**

**end**

**return m;**

**end**

Following are few important notes:

1. The begin-end block is required after every if, while and function header.
2. Multidimenional arrays are not supported.
3. Comments are enclosed in stars. Comments can be multiline.
4. Parameters are passed only by reference; no other method is available.
5. Integer-literals and character-literals are available. e.g: **ch <- 'a';**
6. An identifier starts with a letter followed by any number of letters or digits. Maximum length can be 15 characters.

Besides, the language includes following elements:

1. An optional "else" clause
2. Arithmetic operators: +, -, \*, /
3. Relational operators: =, =/, <, >, =<, =>
4. Two additional data types: character and void
5. Print statement that displays data on screen, e.g: print x
6. Input statement that takes data from keyboard, e.g: input x

That is all; the language does not include anything else.