

## PyCrafr Language – A brief Description

PyCrafr is a custom programming language that seamlessly blends the simplicity and readability of Python with the speed and efficiency of C. Designed to offer an intuitive syntax without compromising on performance, PyCrafr empowers developers to write high-level code that compiles down to optimized machine instructions.

| Keyword          | Explanantion  | Example                             |
|------------------|---|-------------------------------------|
| <b>start</b>     | Defing the function and declaring it.                               | start add x,y                       |
| <b>end</b>       | Ending the function or closing the block                            | start add x,y<br>show”hello”<br>end |
| <b>call</b>      | Calling the function or method                                      | Call add(x,y)                       |
| <b>ask</b>       | User input  | ask “How are you?”                  |
| <b>into</b>      | Keyword for storing user input in variable                          | ask “How are you?” into name        |
| <b>check</b>     | Check the condition instead of “if” keyword                         | check a>b:                          |
| <b>otherwise</b> | It checks the condition. It can be use instead of “elseif” keyword. | otherwise a==b:                     |
| <b>default</b>   | It can be use instead of “else” keyword.                            | default:                            |
| <b>loop</b>      | It is used to implement the loop.                                   | loop i=0;i>=5,i++:                  |
| <b>write</b>     | Used to write something in file                                     | write “helloo” into “filename ”     |
| <b>read</b>      | Used to read from file  | read “filename”                     |

### Language Rules:

#### 1. Variable declarations:

Variable declaration is similar to python. It has dynamic variable declaration.

**Example:**

a = 5

b = 10

name = "Alice"

**2. Function definition:**

In this function definition is similar to python but in this function definition is declare with “start” keyword after that user can name the function(any name of function) and after that pass the parameter. after that using “end” keyword.

**Syntax:**

```
start function_name parameter:
    //block of code
end
```

**Example:**

start add x, y:

sum = x + y

show "The sum is"

show sum

give sum

end

**3. Function call:**

Function call can be done by using “call” key word.

**Syntax:**

```
call function_name parameter
```

**Example:**

call add a, b

**4. Input statement:**

User can take input by using “ask” keyword and store in the variable by using the “into” keyword.

**Syntax**

ask “statement to show to the user” into variable

**Example:**

ask "What is your name?" into username

**5. Conditional statement:**

Conditional statement can be implement by using “check” keyword and “endcheck” keyword. Ifelse condition can be implement by using “otherwise” keyword and else condition can be implement by using “default” keyword.

**Syntax:**

check condition:

    //block of code

endcheck

otherwise condition:

    //block of code

endotherwise

default:

    //code of block

enddefault

**Example:**

check a > b:

    show "a is greater than b"

endcheck

otherwise a == b:

    show "a is equal to b"

endotherwise

default:

show "a is less than b"

enddefault

## 6. Loop statement:

Loop statement can be implemented by using “loop” and “endloop” keyword and easiest

### Syntax:

loop initialize , condition , increase:

//block of code

endloop

### Example:

loop i = 0; i < 5; i = i + 1:

show "Loop iteration"

show i

endloop

## 7. File handling:

In this file handling can be done in a unique way. It has English sentence-like syntax.

By using this file handling can be done easily.

### Syntax:

write “content that you have to right in the file” to “filename”

variable=read”filename”

### Example

write "Hello World" to "test.txt"

content = read "test.txt"

show content