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# TheOnlyLonely Quick Reference Manual

## Main structure of a TheOnlyLonely program

The general structure of a program in TheOnlyLonely is:

```
Program programName;

vars

        foo, bar: dataType;

        baz: dataType;

returnType func functionName(qux: dataType, quux dataType);

vars

        corge: dataType;

        {

                statements

        }

main()

{

        statements

}
```

## Supported data types

TheOnlyLonely supports the following data types:

- int: For integer values
- float: For floating point numbers
- char: for single characters
- void: exclusively for functions which don't return anything

## Supported statements

TheOnlyLonely supports the following statements:

| Statement | Description |
|---|---|
| return( expression ); | To be used inside modules with a return type other than void |
| print( toPrint ); | Prints either expressions or strings |
| if( condition ) then { statements } else { statements }; | If the condition is true, performs the statement(s) within the then-block, |

| | |
|---|---|
| | otherwise performs the statement(s) within the else-block, if any |
| from iterator = startingPoint to ceiling do { statements }; | Starts by assigning a starting point to an iterator and will perform the statements as long as the iterator is smaller or equal to the ceiling provided, every time the block of statements is completed, the iterator is increased by 1 |
| while( condition ) do { statements }; | While the condition is true, the statement(s) will be executed, otherwise they wil be skipped |
| functionName( arguments ); | Functions with return values can be called |
| line( length ); | Draws a line of the given length in the direction the turtle is looking at |
| dot( diameter ); | Draws a dot of the given diameter wherever the turtle is at |
| circle( radius ); | Draws a circle of the given radius around the turtle |
| arc( radius ); | Draws an arc of 180° of the given radius in front of the turtle |
| penup(); | Raises the pen so that it doesn't draw anything as it moves |
| pendown(); | Lowers the pen to resume drawing as it moves |
| size( size ); | Sets the size of the pen to the given value |
| color( "red" \| "blue" \| "green"); | Changes both the fill and line color to that of the presented string, can only be either red, blue or green |
| reset(); | Resets the screen to its default configuration, removing all drawings and setting the turtle back to the center |
| left(angle); | Rotates the turtle by the given angle to the left |
| right(angle); | Rotates the turtle by the given angle to the right |

## How to run a source code file

All you need to do is follow these steps:

1. Download the zip file with the executable file in it
2. Make sure to have your desired source code file on the very same directory as the "parser.exe" file.
3. Run the "parser.exe" file and when prompted to type in the name of the file to execute, do so, and always remember to include the file extension!
4. Enjoy!