The Sway Programming Language
Quick Hits

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Things to note for programmers who are trying Sway:

- *If*s, *while*s, etc. require a brace-delimited block after the test, even if the block consists of one statement. You can use function-call format for single statement blocks:

  ```
  min = if(x < y,x,y);
  ```

- Operators must be surrounded by whitespace.

- *For* loops use commas, not semi-colons, to separate the initializer, test, and update expressions. This is because for-loops are, in fact, function calls and those expressions are arguments). You must include the *basics* library to use loops other than *while* loops.

- The only keyword in Sway is `else`. Every other keyword-looking token is a variable and can be reassigned.

- If there is no explicit return, the value of the last expression evaluated in the function body is the return value.

- Class and constructor are the same thing in Sway. Any function that returns the pre-defined variable *this* is considered a class definition and a constructor for that class. Here is an example *Node* class:

  ```
  function node(value,next)
      {
      this;
      }
  ```

- Nested functions in a constructor are methods:

  ```
  function node(value,next)
      {
      function toString()
          {
          "value: " + value + ", next: " + next;
          }
      this;
      }
  ```

- Inheritance is implemented by the *extends* function:

```
function A(value,next)
    {
    extends(B());
    this;
    }
```

The extends function concatenates (with some tweaking) the given object to the current object.
Inheritance is similar to Java; every method is virtual.