28th Day

This Keyword

```
class Rectangle;
  int length, breadth;


  function void dimensions(int length, int breadth);
    this.length = length;     // differentiates class variable from argument
    this.breadth = breadth;
  endfunction


  function void display();
    $display("Length = %0d, Breadth = %0d", length, breadth);
  endfunction
endclass


module tb;


Rectangle r;


initial
begin
r=new();
r.dimensions(10,20);
r.display();
end


endmodule
```

Simulation

```
# Compile of this.sv was successful.
# Load canceled
QuestaSim> vsim -voptargs=+acc work.tb
# vsim -voptargs="+acc" work.tb
# Start time: 20:35:56 on Apr 15,2025
# ** Note: (vsim-3812) Design is being optimized...
#
# Loading sv_std.std
# Loading work.this_sv_unit(fast)
# Loading work.tb(fast)
VSIM 2> run -all
# Length = 10, Breadth = 20
```

Super Keyword

```
class animal;
  function void speak();
    $display("Animal speaks");
  endfunction
endclass


class dog extends animal;
  function void speak();
    super.speak(); // calling parent method
    $display("Dog barks");
  endfunction
endclass


module tb;
  initial begin
    dog d = new();
    d.speak();
  end
endmodule
```

Simulation

```
# or remove the initialization in the declaration of variable.
#
# Loading sv_std.std
# Loading work.super_sv_unit(fast)
# Loading work.tb(fast)
VSIM 5> run -all
# Animal speaks
# Dog barks

VSIM 6>
```