

27th Day

Polymorphism

Without using Virtual function In Parent

```
class parent;  
    function display();  
    $display("iam in parent class");  
endfunction  
endclass
```

```
class child extends parent;  
    function display();  
    $display("iam in child class");  
endfunction  
endclass
```

```
module top;  
    initial  
    begin  
        parent p=new();  
        child c=new();  
        p=c;  
        p.display();  
        c.display();  
    end  
endmodule
```

Simulation

```
CPU time: .446 seconds to compile + .504 seconds to elab + .455 seconds to link
Chronologic VCS simulator copyright 1991-2023
Contains Synopsys proprietary information.
Compiler version U-2023.03-SP2_Full64; Runtime version U-2023.03-SP2_Full64; Apr 14 10:09 2025
iam in parent class
iam in child class
      V C S   S i m u l a t i o n   R e p o r t
Time: 0 ns
CPU Time:      0.430 seconds;      Data structure size:  0.0Mb
Mon Apr 14 10:09:42 2025
```

Using Virtual Function

```
class parent;
    virtual function display();
        $display("iam in parent class");
    endfunction
endclass

class child extends parent;
    function display();
        $display("iam in child class");
    endfunction
endclass

module top;
    initial
```

```
begin
  parent p=new();
  child c=new();
  p=c;
  p.display();
  c.display();
end
endmodule
```

Simulation

CPU time: .423 seconds to compile + .501 seconds to elab + .413 seconds to link

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iam in child class

iam in child class

V C S S i m u l a t i o n R e p o r t

Time: 0 ns

CPU Time: 0.450 seconds; Data structure size: 0.0Mb

U-2023.03-SP2_Full64; Apr 14 10:14 2025