

29th Day

Encapsulation

```
class encapsulation;
```

```
    local int a=3;
```

```
    local int b=4;
```

```
    local int c;
```

```
    protected int d=7;
```

```
    protected int e=5;
```

```
    protected int f;
```

```
    int g=6; //by default public
```

```
function void add();
```

```
    c=a+b;
```

```
    $display("local c is %0d",c);
```

```
endfunction
```

```
endclass
```

```
class msd extends encapsulation;
```

```
function void sub();
```

```
    f=d-e;
```

```
    $display("protected f is %0d",f);
```

```
endfunction
```

```
endclass
```

```

module tb;

initial
begin
    encapsulation e=new();
    msd m=new();
    e.add();
    m.sub();

    // $display("%d",e.d); //it will give error bcz protected members only use inside parent
    and extended classes
    $display("public g is %0d",e.g);
end
endmodule

```

Simulation

Contains Synopsys proprietary information.

Compiler version U-2023.03-SP2_Full64; Runtime version U-2023.03-SP2_Full64; Apr 17 12:35 2025

local c is 7

protected f is 2

public g is 6

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

Time: 0 ns

Cell Time: 0.250 seconds Data structure size: 0 Mb