

```
//Sequence
```

```
import uvm_pkg::*;
class seq_item extends uvm_sequence_item;
    randc bit p,q,r,s,t,u;
    randc byte v,w,x,y,z;
    typedef enum {a=1,b,c,d} State;
    State state;

    `uvm_object_utils_begin(seq_item)
        `uvm_field_int(p,UVM_ALL_ON)
        `uvm_field_int(q,UVM_ALL_ON)
        `uvm_field_int(r,UVM_ALL_ON)
        `uvm_field_int(s,UVM_ALL_ON)
        `uvm_field_int(t,UVM_ALL_ON)
        `uvm_field_int(u,UVM_ALL_ON)
        `uvm_field_int(v,UVM_ALL_ON)
        `uvm_field_int(w,UVM_ALL_ON)
        `uvm_field_int(x,UVM_NOPRINT)
        `uvm_field_int(y,UVM_NOCOMPARE)
        `uvm_field_int(z,UVM_NOCOPY)

    `uvm_object_utils_end

    function new(string name="mem_seq_item");
        super.new(name);
    endfunction

endclass
```

```
//top module
```

```
`include "uvm_macros.svh"
`include "sequence.sv"
module top;
    initial begin
        seq_item sq1,sq2,sq3;
        sq1=seq_item::type_id::create();
        sq1.randomize();
        sq1.print();          //PRINTING
        sq2=seq_item::type_id::create();
        sq2.copy(sq1);        //COPYING SEQ1 TO SEQ2
        sq2.print();

        $cast(sq3,sq1.clone()); //CLONE
        sq3.print();

        if(sq1.compare(sq2))
            `uvm_info("","sq2 is matching with sq1",UVM_LOW)
        else
```

```
`uvm_error("", "sq2 is not matching with sq1")
end
```

```
endmodule
```

```

May 3 15:38
msis@centos:uvm_lab_sessional

File Edit View Search Terminal Help
q      integral 1 'h0
r      integral 1 'h0
s      integral 1 'h0
t      integral 1 'h0
u      integral 1 'h1
v      integral 8 'h2f
w      integral 8 'h71
y      integral 8 'h3a
z      integral 8 'h12
-----
Name      Type      Size Value
-----
mem_seq_item seq_item - @2605
p      integral 1 'h1
q      integral 1 'h0
r      integral 1 'h0
s      integral 1 'h0
t      integral 1 'h0
u      integral 1 'h1
v      integral 8 'h2f
w      integral 8 'h71
y      integral 8 'h3a
z      integral 8 'h0
-----
Name      Type      Size Value
-----
mem_seq_item seq_item - @2614
p      integral 1 'h1
q      integral 1 'h0
r      integral 1 'h0
s      integral 1 'h0
t      integral 1 'h0
u      integral 1 'h1
v      integral 8 'h2f
w      integral 8 'h71
y      integral 8 'h3a
z      integral 8 'h0
-----
xmsim: *W,RNQUIE: Simulation is complete.
xcelium> exit
TOOL: xrun(64) 20.09-s012: Exiting on May 03, 2023 at 15:37:30 IST (total: 00:00:02)
[msis@centos uvm_lab_sessional]$

```

```

May 3 15:43
msis@centos:uvm_lab_sessional

File Edit View Search Terminal Help
t      integral 1 'h0
u      integral 1 'h1
v      integral 8 'h2f
w      integral 8 'h71
y      integral 8 'h3a
z      integral 8 'h12
-----
Name      Type      Size Value
-----
mem_seq_item seq_item - @2605
p      integral 1 'h1
q      integral 1 'h0
r      integral 1 'h0
s      integral 1 'h0
t      integral 1 'h0
u      integral 1 'h1
v      integral 8 'h2f
w      integral 8 'h71
y      integral 8 'h3a
z      integral 8 'h0
-----
Name      Type      Size Value
-----
mem_seq_item seq_item - @2614
p      integral 1 'h1
q      integral 1 'h0
r      integral 1 'h0
s      integral 1 'h0
t      integral 1 'h0
u      integral 1 'h1
v      integral 8 'h2f
w      integral 8 'h71
y      integral 8 'h3a
z      integral 8 'h0
-----
UVM INFO @ 0: reporter [MISCMP] Mismatch for mem_seq_item.z: lhs = 'h12 : rhs = 'h0
UVM INFO @ 0: reporter [MISCMP] 1 Mismatch(s) for object mem_seq_item@2605 vs. mem_seq_item@2533
UVM ERROR top.sv(20) @ 0: reporter [] sq2 is not matching with sq1
xmsim: *W,RNQUIE: Simulation is complete.
xcelium> exit
TOOL: xrun(64) 20.09-s012: Exiting on May 03, 2023 at 15:43:03 IST (total: 00:00:03)
[msis@centos uvm_lab_sessional]$

```