Array Types

```
module array_types();
    int arr[3] = {20,40,34};
    string arr1[3] = {"Hello","World","!"};
    string arr2[];
    int arr3[string];

    initial begin
        arr2 = new[4];
        arr2 = {"Hello","vlsi","world"};
        arr3["RED"] = 128;
        arr3["GREEN"] = 230;
        arr3["BLUE"] = 10;
        $display("/**** Simple Integer Array ****/");
        foreach(arr[i]) begin
            $display("arr[%0d]: %0d",i, arr[i]);
        end
        $display("/**** Simple String Array ****/");
        foreach(arr1[i]) begin
            $display("arr1[%0d]: %0s",i, arr1[i]);
        end
        $display("/**** Dynamic Array ****/");
        foreach(arr2[i]) begin
            $display("arr2[%0d]: %0s",i, arr2[i]);
        end
        $display("/**** Associative Array ****/");
        $display("arr3[RED]: %0d", arr3["RED"]);
        $display("arr3[GREEN]: %0d", arr3["GREEN"]);
        $display("arr3[BLUE]: %0d", arr3["BLUE"]);

    end
endmodule
```

OUTPUT

```
# KERNEL: /**** Simple Integer Array ****/
# KERNEL: arr[0]: 20
# KERNEL: arr[1]: 40
# KERNEL: arr[2]: 34
# KERNEL: /**** Simple String Array ****/
# KERNEL: arr1[0]: Hello
# KERNEL: arr1[1]: World
# KERNEL: arr1[2]: !
# KERNEL: /**** Dynamic Array ****/
# KERNEL: arr2[0]: Hello
# KERNEL: arr2[1]: vlsi
# KERNEL: arr2[2]: world
# KERNEL: /**** Associative Array ****/
# KERNEL: arr3[RED]: 128
# KERNEL: arr3[GREEN]: 230
# KERNEL: arr3[BLUE]: 10
```