

# 1 Digital System Design with High-Level Synthesis in FPGA

We can use the codes in the previous lecture quiz solution and add proper pragmas as shown below

## Case 1:

```
unsigned short int basic_output_16LED() {  
#pragma HLS INTERFACE ap_ctrl_none port=return  
  
    return 0b0000000011111111;  
}
```

## Case 2:

```
void basic_output_16LED(unsigned short int *led) {  
#pragma HLS INTERFACE ap_ctrl_none port=return  
#pragma HLS INTERFACE ap_none port=led  
  
    *led = 0b0000000011111111;  
}
```

## Case 2:

```
void basic_output_16LED(unsigned short int &led) {  
#pragma HLS INTERFACE ap_ctrl_none port=return  
#pragma HLS INTERFACE ap_none port=led  
  
    led = 0b0000000011111111;  
}
```