Hands-on Session

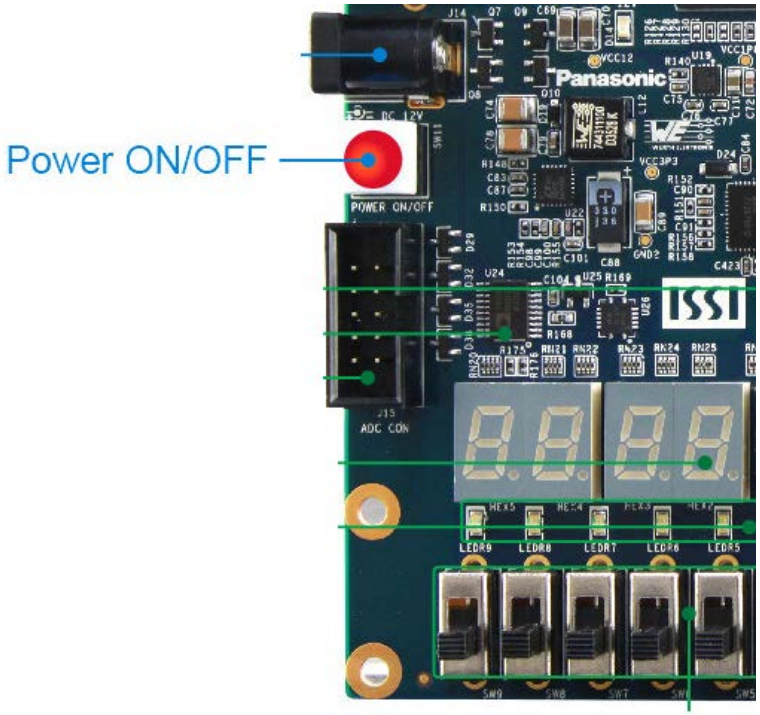
- Boot Linux
- Connect to Linux via USB-to-UART and Putty
- Compile and run a simple program

Exercise 7: Talking to Linux on the DE1-SoC

- Compile and execute the “Hello World” program

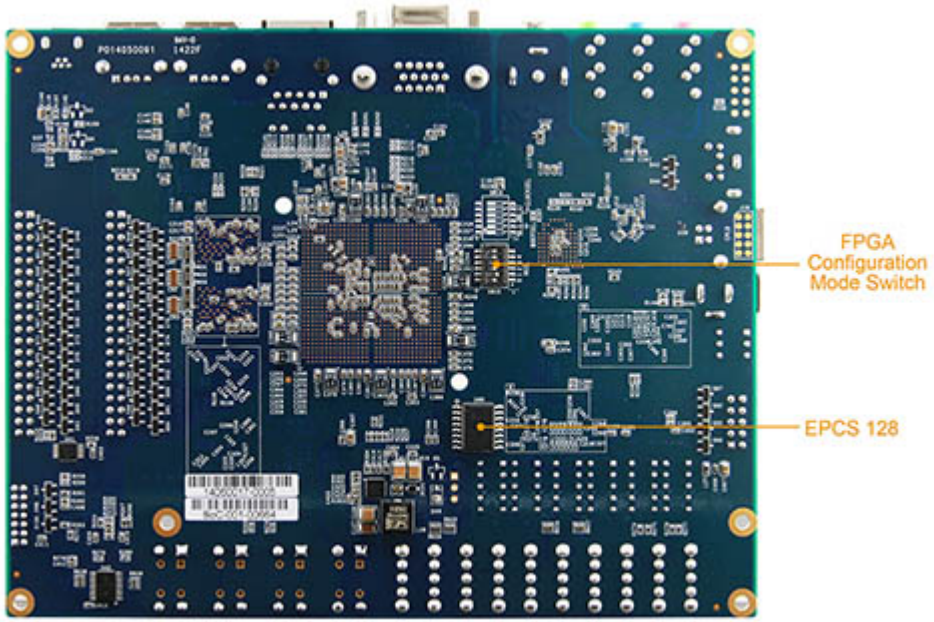
```
#include <stdio.h>

int main(void){

    printf("Hello World!\n");

    return 0;
}
```

Step 1: Power Off the DE1-SoC

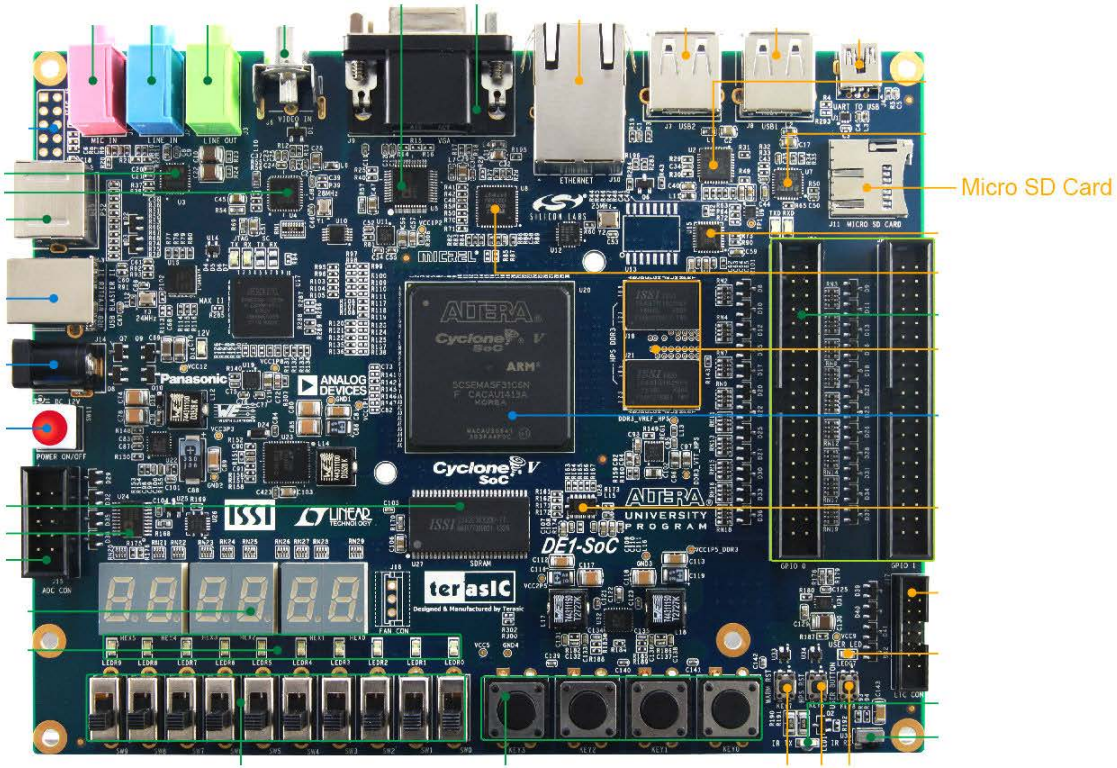


Step 2: Set MSEL to `b01010 on the DE1-SoC

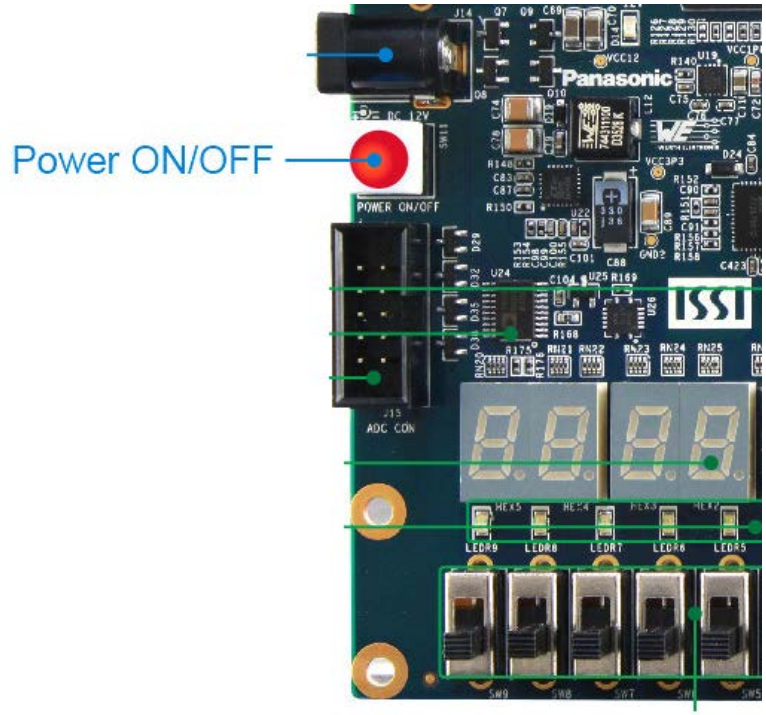
- Enables ARM to be able to configure the FPGA



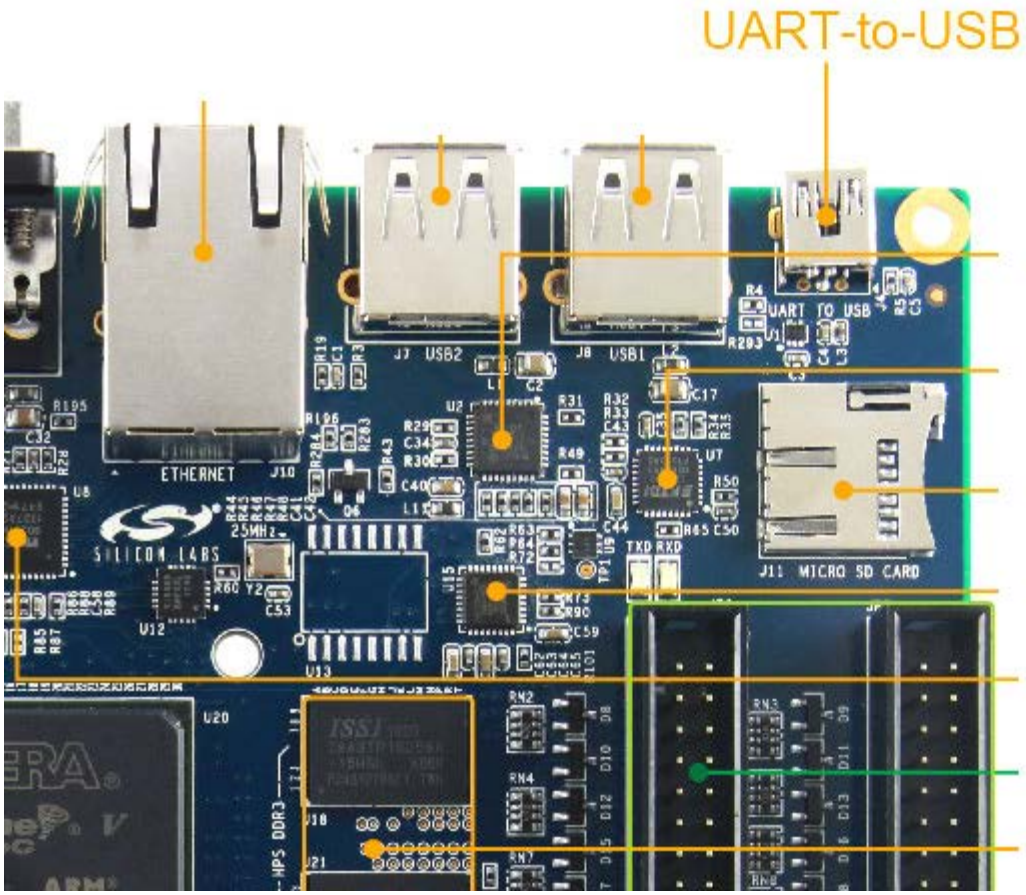
Step 3: Insert Linux SD Card



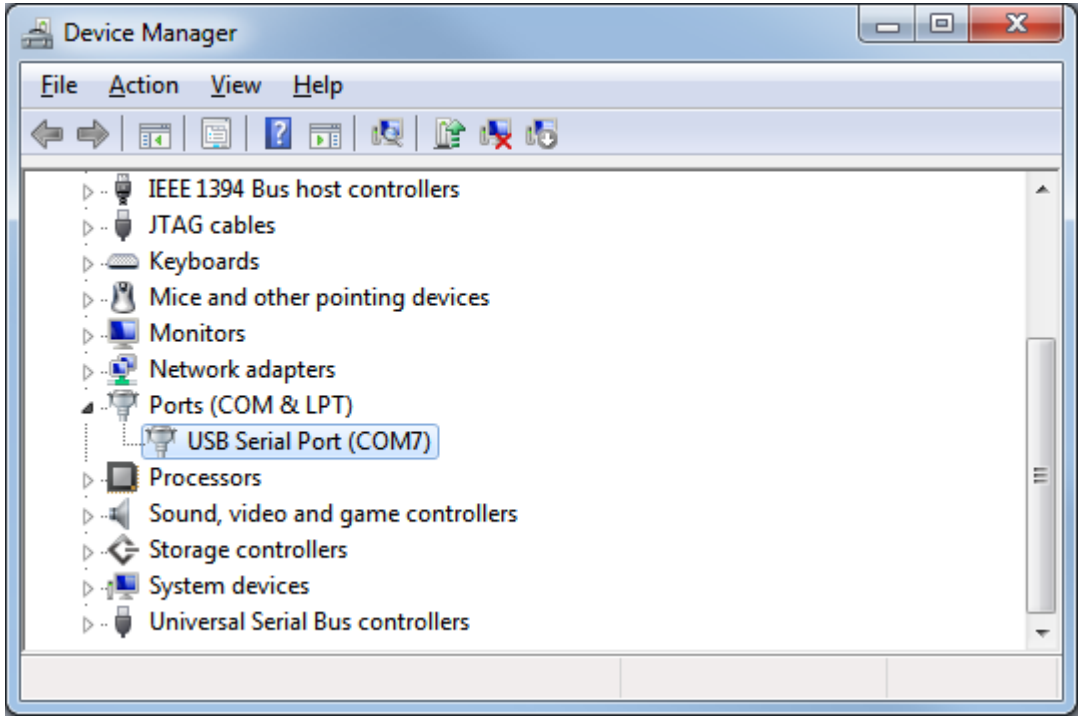
Step 4: Power On the DE1-SoC



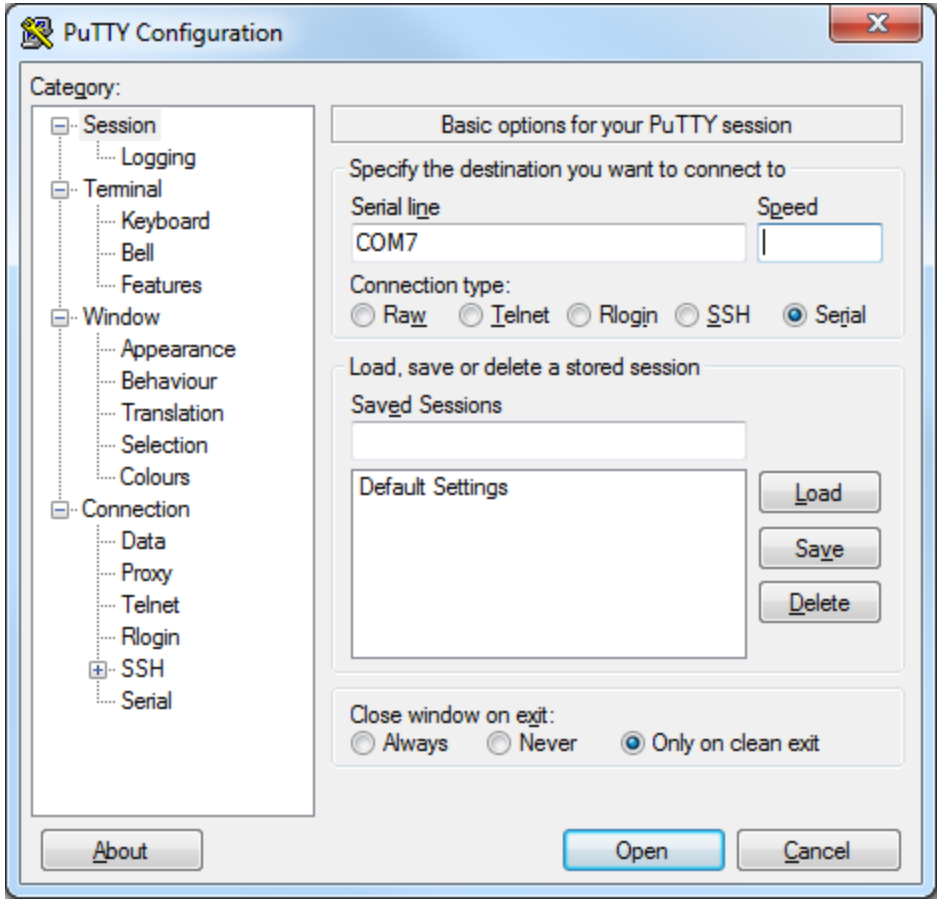
Step 5: Ensure the UART-to-USB is Connected to the Host Computer



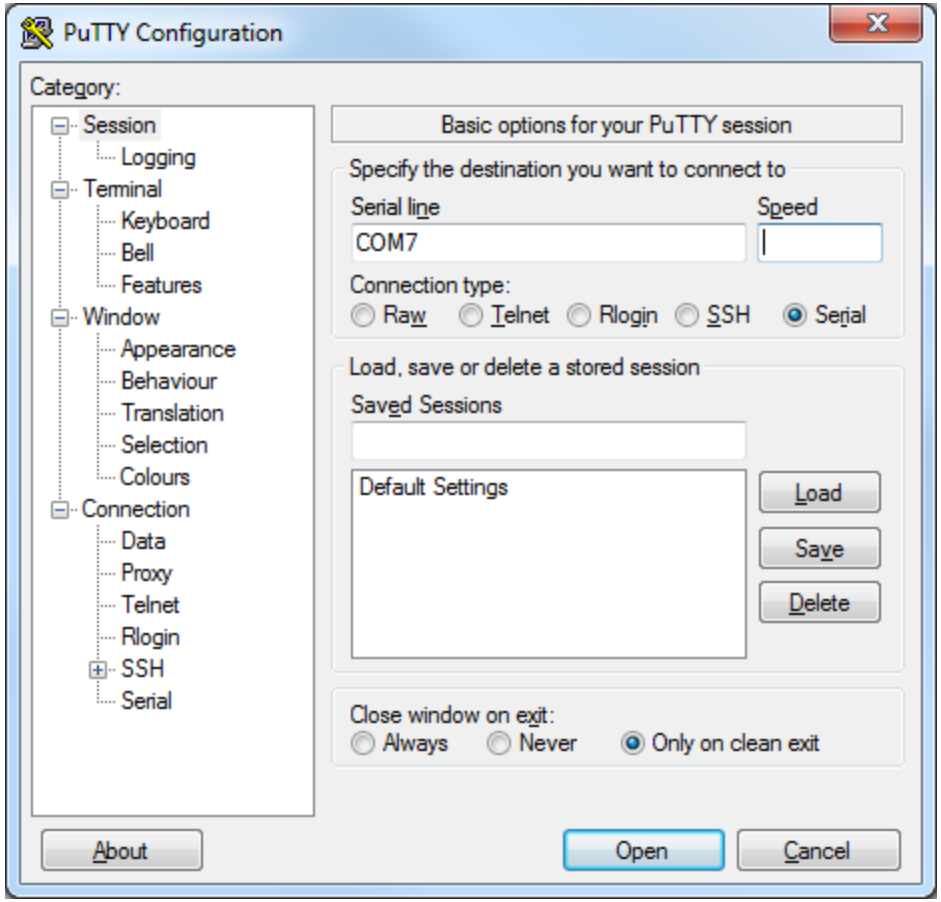
Step 6: Check Device Manager for COM Port Settings



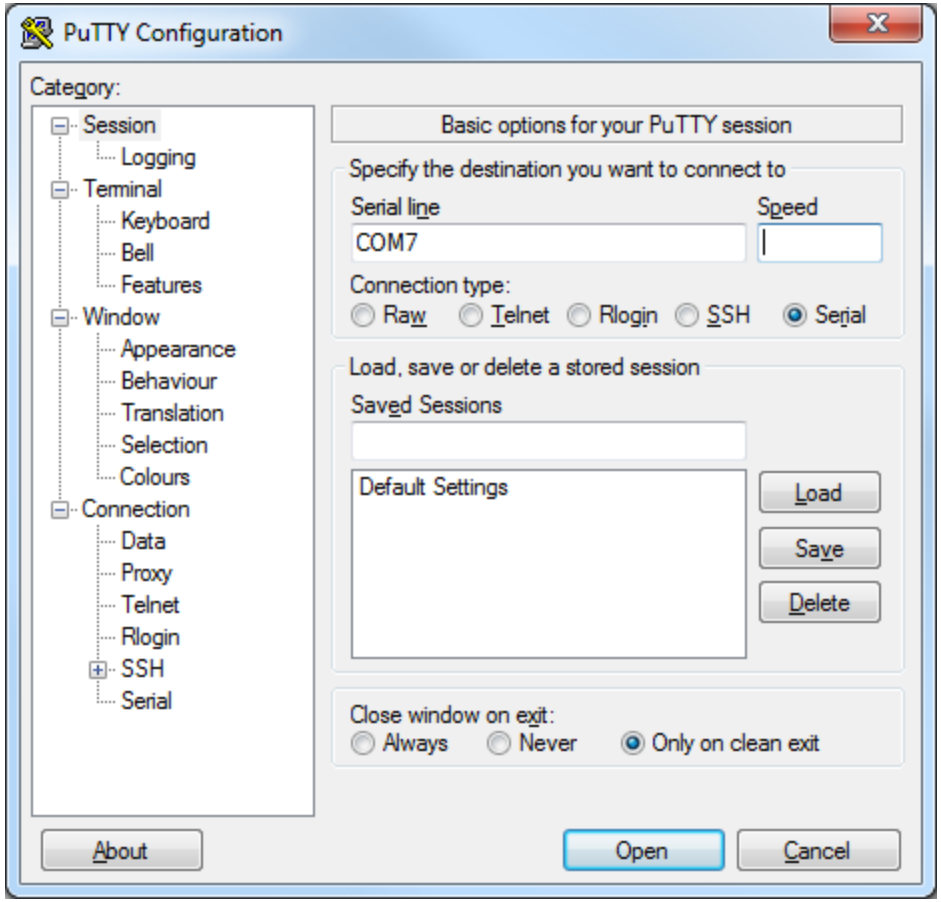
Step 7: Open Putty



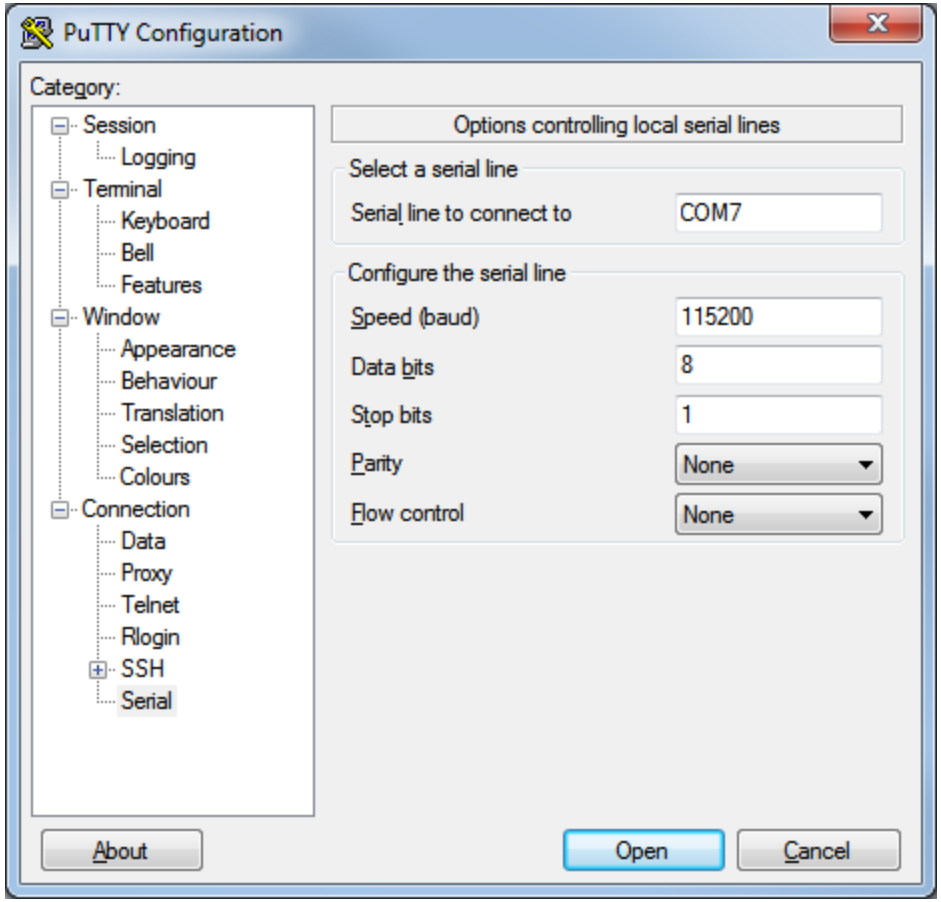
Step 8: Select ‘Serial’ Connection Type



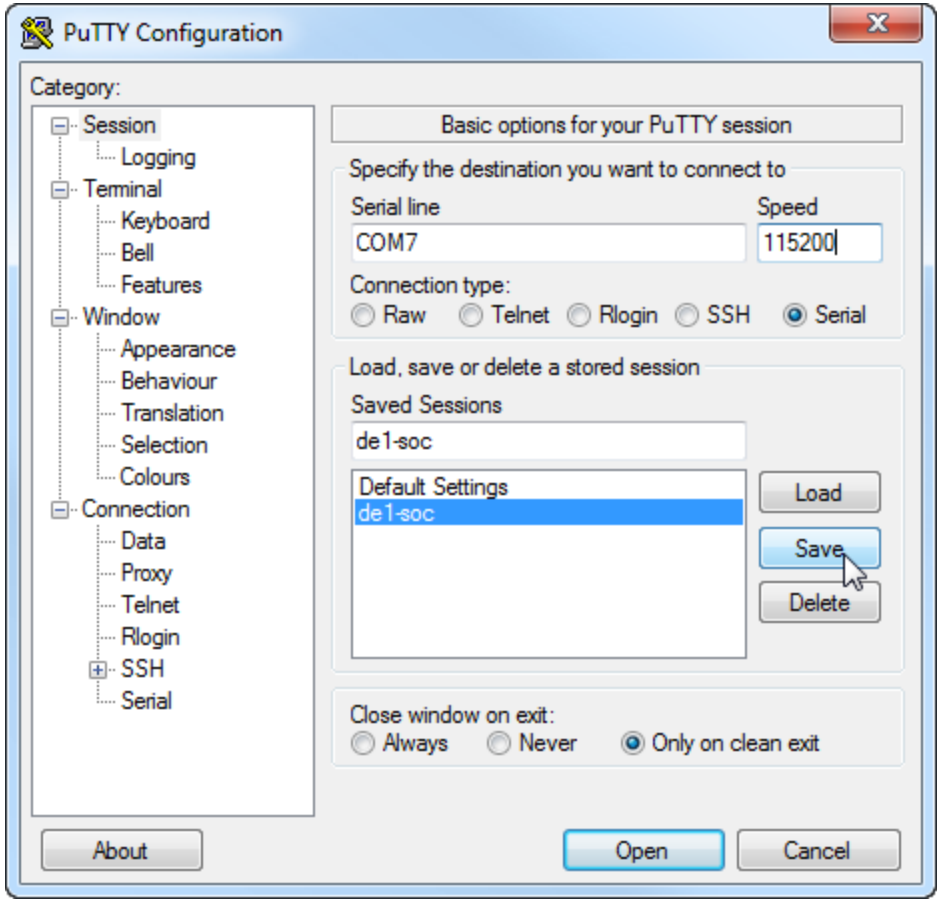
Step 9: Enter COM Port Name in ‘Serial line’ Box



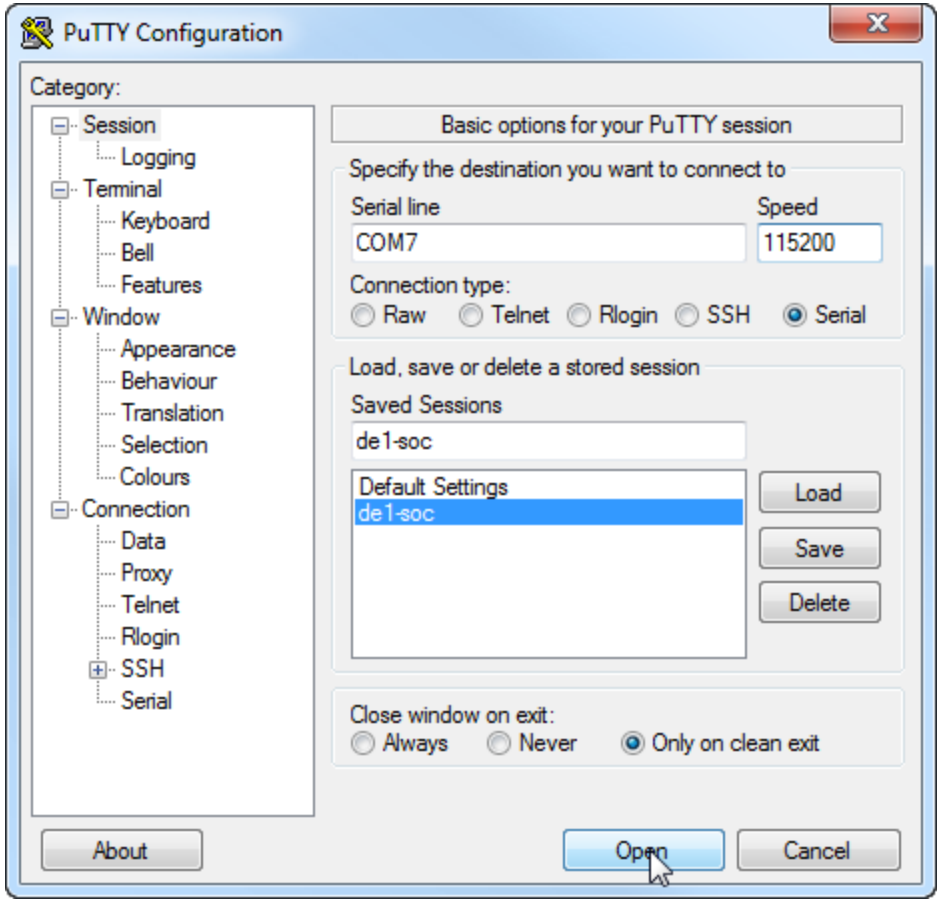
Step 10: Enter Serial Port Settings as shown



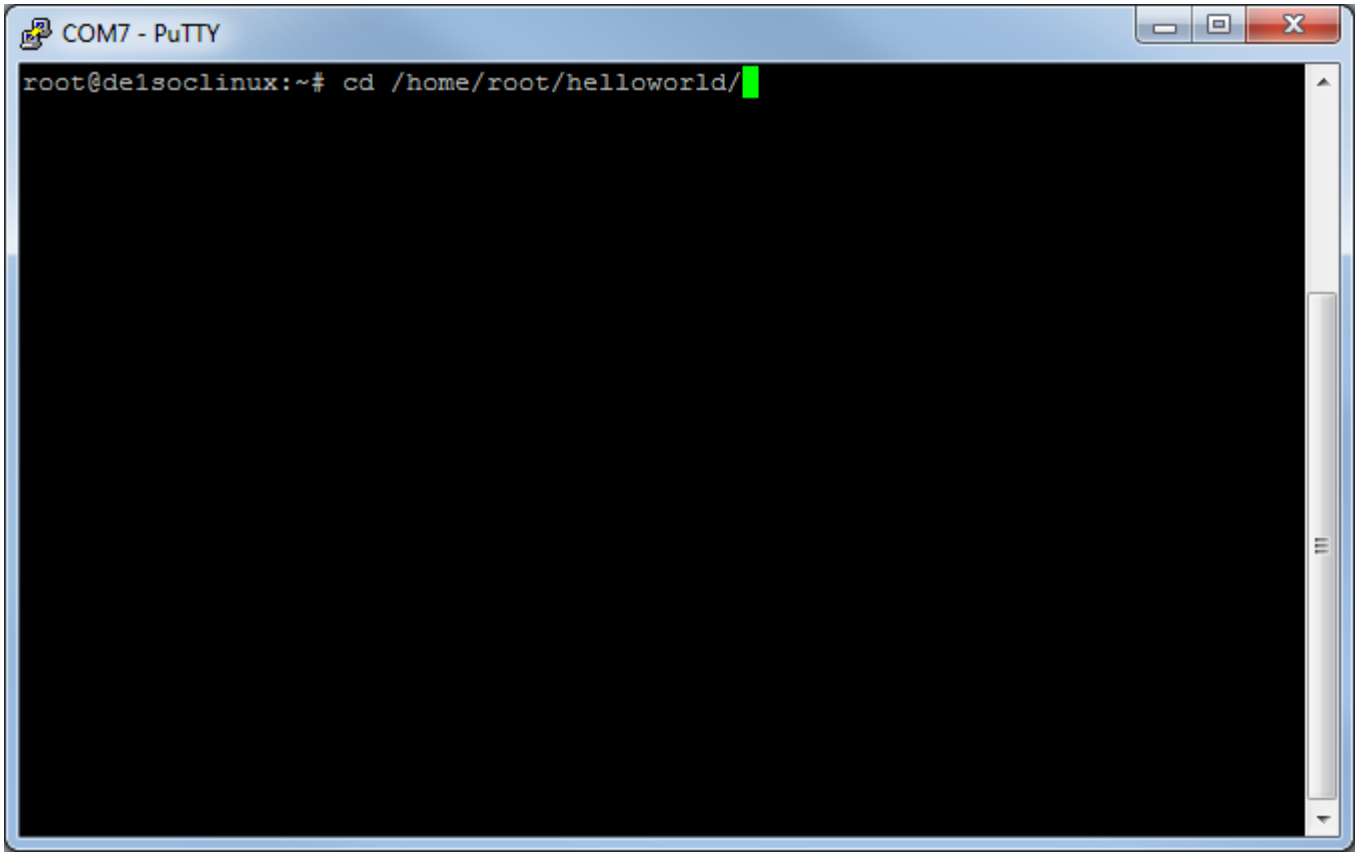
Step 11: Save Session for Later Use



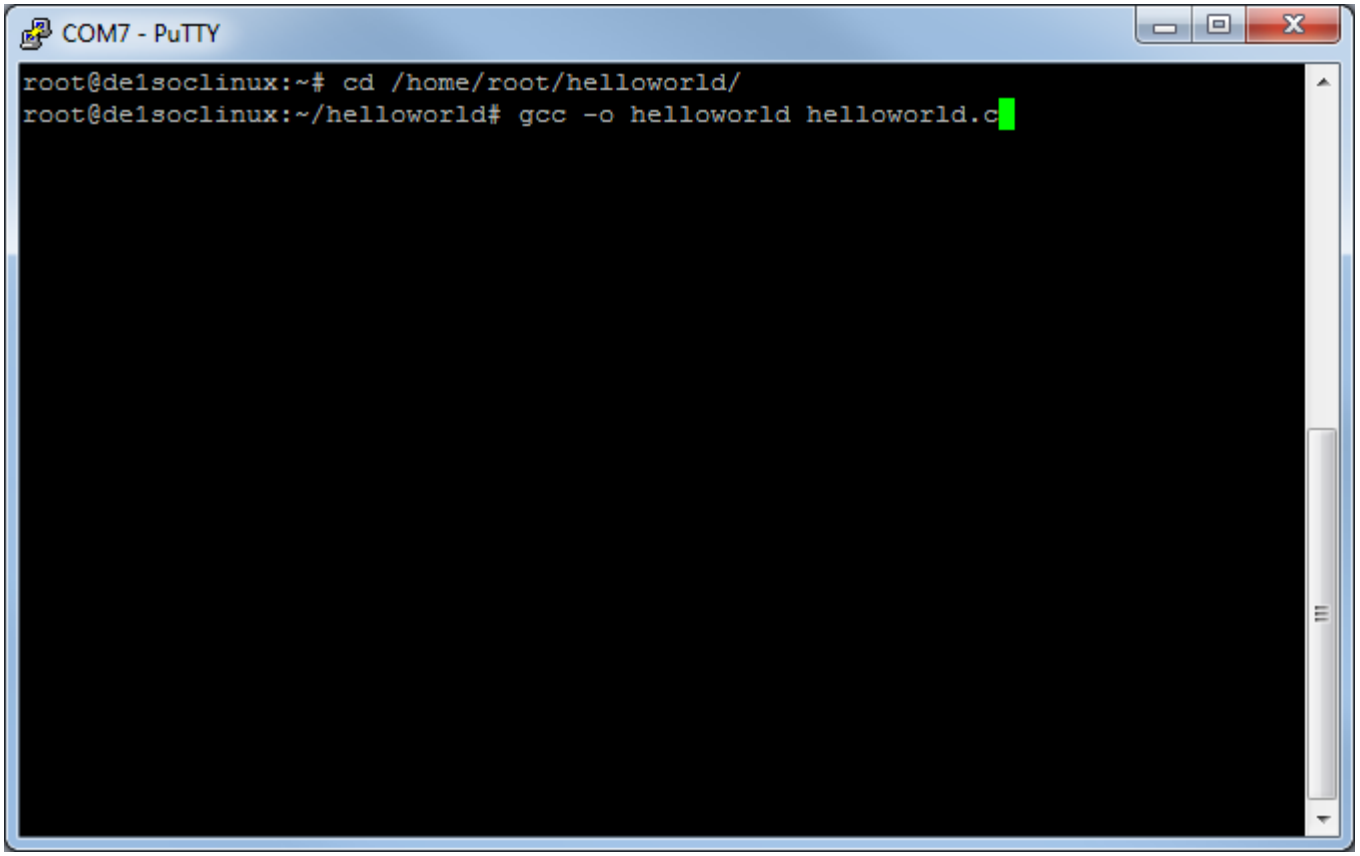
Step 12: Open Connection



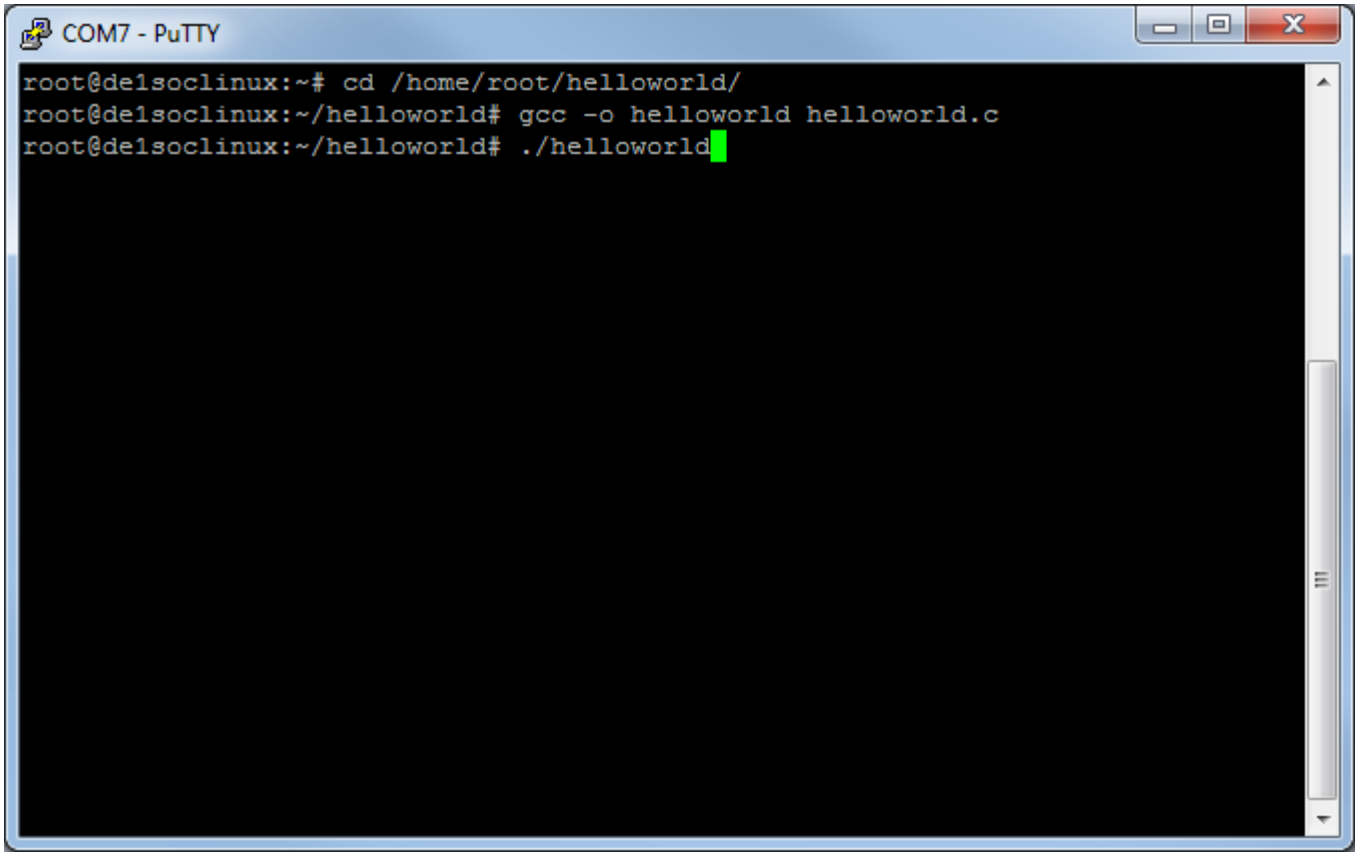
Step 13: In Putty: Change to the Example Directory



Step 14: Compile the Sample Program



Step 15: Execute the Sample Program



Step 16: See the Output