

lec2\_lab1

workspacelec2\_lab1

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app.c

9/14/2024 10:41 PM

C File

uart.c

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C File

uart.h

9/13/2024 12:12 AM

H File

uart.o

9/14/2024 10:37 PM

O File

app.o

9/14/2024 10:41 PM

O File

5 items1 item selected1.17 KB

F:\hossam\learn in depth\workspace\lec2\_lab1\app.c - Notepad++

File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window

uart.cuart.happ.c

1

2

3

4

5

6

7

8

9

10

#include "uart.h"

unsigned char string\_buffer[100]= "learn-in-depth:Hossam\_zohir";

unsigned char const string\_buffer1[100]= "learn-in-depth:Hossam\_zohir";

void main(void)

{

Uart\_send\_string(string\_buffer);

}

C length : 220 lines : 10Ln : 10 Col : 2 Pos : 221Windows (CR LF)UTF-8INS

MINGW64:/f/hossam/learn in depth/workspace/lec2\_lab1

7

8

9

10

11

CONTENTS, RELOC, READONLY, DEBUGGING

00000035 00000000 00000000 000001c2 2\*\*0

CONTENTS, RELOC, READONLY, DEBUGGING

00000069 00000000 00000000 000001f7 2\*\*0

CONTENTS, READONLY, DEBUGGING

00000012 00000000 00000000 00000260 2\*\*0

CONTENTS, READONLY

00000032 00000000 00000000 00000272 2\*\*0

CONTENTS, READONLY

0000002c 00000000 00000000 000002a4 2\*\*2

CONTENTS, RELOC, READONLY, DEBUGGING

Hossam@Hossam-pc MINGW64 /f/hossam/learn in depth/workspace/lec2\_lab1

\$ arm-none-eabi-gcc.exe -c -mcpu=arm926ej-s -I . uart.c -o uart.o

Hossam@Hossam-pc MINGW64 /f/hossam/learn in depth/workspace/lec2\_lab1

\$ arm-none-eabi-gcc.exe -c -mcpu=arm926ej-s -I . app.c -o app.o

Hossam@Hossam-pc MINGW64 /f/hossam/learn in depth/workspace/lec2\_lab1

\$ arm-none-eabi-objdump.exe -h app.o

app.o: file format elf32-littlearm

Sections:

Idx Name Size VMA LMA File off Algn

0 .text 00000018 00000000 00000000 00000034 2\*\*2

CONTENTS, ALLOC, LOAD, RELOC, READONLY, CODE

1 .data 00000064 00000000 00000000 0000004c 2\*\*2

CONTENTS, ALLOC, LOAD, DATA

2 .bss 00000000 00000000 00000000 000000b0 2\*\*0

ALLOC

3 .comment 00000012 00000000 00000000 000000b0 2\*\*0

CONTENTS, READONLY

4 .ARM.attributes 00000032 00000000 00000000 000000c2 2\*\*0

CONTENTS, READONLY

Hossam@Hossam-pc MINGW64 /f/hossam/learn in depth/workspace/lec2\_lab1

\$ arm-none-eabi-gcc.exe -c -mcpu=arm926ej-s -I . app.c -o app.o

Hossam@Hossam-pc MINGW64 /f/hossam/learn in depth/workspace/lec2\_lab1

\$ arm-none-eabi-objdump.exe -h app.o

app.o: file format elf32-littlearm

Sections:

Idx Name Size VMA LMA File off Algn

0 .text 00000018 00000000 00000000 00000034 2\*\*2

CONTENTS, ALLOC, LOAD, RELOC, READONLY, CODE

1 .data 00000064 00000000 00000000 0000004c 2\*\*2

CONTENTS, ALLOC, LOAD, DATA

2 .bss 00000000 00000000 00000000 000000b0 2\*\*0

ALLOC

3 .rodata 00000064 00000000 00000000 000000b0 2\*\*2

CONTENTS, ALLOC, LOAD, READONLY, DATA

4 .comment 00000012 00000000 00000000 00000114 2\*\*0

CONTENTS, READONLY

5 .ARM.attributes 00000032 00000000 00000000 00000126 2\*\*0

CONTENTS, READONLY

Hossam@Hossam-pc MINGW64 /f/hossam/learn in depth/workspace/lec2\_lab1

\$

```
MINGW64:/f/hossam/learn in depth/workspace/lec2_lab1
canon-a1100 Canon PowerShot A1100 IS
cheetah Palm Tungsten|E aka. Cheetah PDA (OMAP310)
collie Sharp SL-5500 (Collie) PDA (SA-1110)
connex Gumstix Connex (PXA255)
cubieboard cubietech cubieboard
emcraft-sf2 SmartFusion2 SOM kit from Emcraft (M2S010)
highbank Calxeda Highbank (ECX-1000)
imx25-pdk ARM i.MX25 PDK board (ARM926)
integratorcp ARM Integrator/CP (ARM926EJ-S)
kzm ARM KZM Emulation Baseboard (ARM1136)
lm3s6965evb Stellaris LM3S6965EVB
lm3s811evb Stellaris LM3S811EVB
mainstone Mainstone II (PXA27x)
mcimx7d-sabre Freescale i.MX7 DUAL SABRE (Cortex A7)
midway Calxeda Midway (ECX-2000)
mps2-an385 ARM MPS2 with AN385 FPGA image for Cortex-M3
mps2-an505 ARM MPS2 with AN505 FPGA image for Cortex-M33
mps2-an511 ARM MPS2 with AN511 DesignStart FPGA image for Cortex-M3
musicpal Marvell 88w8618 / MusicPal (ARM926EJ-S)
n800 Nokia N800 tablet aka. RX-34 (OMAP2420)
n810 Nokia N810 tablet aka. RX-44 (OMAP2420)
netduino2 Netduino 2 Machine
none empty machine
nuri Samsung NURI board (Exynos4210)
palmetto-bmc OpenPOWER Palmetto BMC (ARM926EJ-S)
raspi2 Raspberry Pi 2
realview-eb ARM RealView Emulation Baseboard (ARM926EJ-S)
realview-eb-mpcore ARM RealView Emulation Baseboard (ARM11MPCore)
realview-pb-a8 ARM RealView Platform Baseboard for Cortex-A8
realview-pbx-a9 ARM RealView Platform Baseboard Explore for Cortex-A9
romulus-bmc OpenPOWER Romulus BMC (ARM1176)
sabrelite Freescale i.MX6 Quad SABRE Lite Board (Cortex A9)
smdk2443 smdk2443 (ARM920-T)
smdkc210 Samsung SMDKC210 board (Exynos4210)
spitz Sharp SL-C3000 (Spitz) PDA (PXA270)
sx1 Siemens SX1 (OMAP310) V2
sx1-v1 Siemens SX1 (OMAP310) V1
terrier Sharp SL-C3200 (Terrier) PDA (PXA270)
tosa Sharp SL-6000 (Tosa) PDA (PXA255)
tt OpenTom (ARM920-T)
tt666 OpenTom (ARM920-T)
verdex Gumstix Verdex (PXA270)
versatileab ARM Versatile/AB (ARM926EJ-S)
versatilepb ARM Versatile/PB (ARM926EJ-S)
vexpress-a15 ARM Versatile Express for Cortex-A15
vexpress-a9 ARM Versatile Express for Cortex-A9
virt-2.10 QEMU 2.10 ARM Virtual Machine
virt-2.11 QEMU 2.11 ARM Virtual Machine
virt-2.12 QEMU 2.12 ARM Virtual Machine (alias of virt-2.12)
virt-2.6 QEMU 2.6 ARM Virtual Machine
virt-2.7 QEMU 2.7 ARM Virtual Machine
virt-2.8 QEMU 2.8 ARM Virtual Machine
virt-2.9 QEMU 2.9 ARM Virtual Machine
xilinx-zynq-a9 Xilinx Zynq Platform Baseboard for Cortex-A9
z2 Zipit Z2 (PXA27x)

Hossam@Hossam-pc MINGW64 /f/hossam/learn in depth/workspace/lec2_lab1
$ qemu-system-arm -M versatilepb -m 128M -nographic -kernel learn-in-depth.bin
learn-in-depth:Hossam_zohir
```

```
F:\hossam\learn in depth\workspace\lec2_lab1\output.map - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
uart.c x uart.h x app.c x startup.s x linker_script.ld x output.map x

1
2 Memory Configuration
3
4 Name Origin Length
5 Mem 0x00000000 0x04000000
6 *default* 0x00000000 0xffffffff
7
8 Linker script and memory map
9
10 0x00010000 . = 0x10000
11
12 .startup 0x00010000 0x10
13 startup.o(.text)
14 .text 0x00010000 0x10 startup.o
15 0x00010000 reset
16
17 .text 0x00010010 0xcc
18 *(.text)
19 .text 0x00010010 0x18 app.o
20 0x00010010 main
21 .text 0x00010028 0x50 uart.o
22 0x00010028 Uart_send_s
23 *(.rodata)
24 .rodata 0x00010078 0x64 app.o
25 0x00010078 string_buff
26
27 .glue_7 0x000100dc 0x0
28 .glue_7 0x00000000 0x0 linker stubs

N length : 2,557 lines : 81 Ln : 1 Col : 1 Pos : 1 Windows (CR LF) UTF-8 INS
```