

## 1- Symbols:

```
MINGW32:/c/Users/Adham/Desktop/lab 2

Adham@DESKTOP-8DM03B6 MINGW32 ~/Desktop/lab 2
$ arm-none-eabi-nm.exe app.o
00000000 D buffer
00000000 T main
          U send_string

Adham@DESKTOP-8DM03B6 MINGW32 ~/Desktop/lab 2
$ arm-none-eabi-nm.exe uart.o
00000000 T send_string

Adham@DESKTOP-8DM03B6 MINGW32 ~/Desktop/lab 2
$ arm-none-eabi-nm.exe startup.o
          U main
00000000 T reset
          U stack_top
00000008 t stop

Adham@DESKTOP-8DM03B6 MINGW32 ~/Desktop/lab 2
$ arm-none-eabi-nm.exe learn_in_depth.elf
00010078 D buffer
00010010 T main
00010000 T reset
00010028 T send_string
000110dc D stack_top
00010008 t stop

Adham@DESKTOP-8DM03B6 MINGW32 ~/Desktop/lab 2
$ |
```

## 2- Sections in each object file:

```
MINGW32/c/Users/Adham/Desktop/lab 2
Adham@DESKTOP-8PM03B6 MINGW32 ~/Desktop/lab 2
$ arm-none-eabi-objdump.exe -h uart.o
uart.o:          file format elf32-littlearm

Sections:
Idx Name          Size      VMA           LMA           File off  Algn
 0 .text          00000050  00000000  00000000  00000034  2**2
CONTENTS, ALLOC, LOAD, READONLY, CODE
 1 .data          00000000  00000000  00000000  00000054  2**0
CONTENTS, ALLOC, LOAD, DATA
 2 .bss           00000000  00000000  00000000  00000084  2**0
ALLOC
 3 .comment       00000012  00000000  00000000  00000084  2**0
CONTENTS, READONLY
 4 .ARM.attributes 00000032  00000000  00000000  00000096  2**0
CONTENTS, READONLY

Adham@DESKTOP-8PM03B6 MINGW32 ~/Desktop/lab 2
$ 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

Adham@DESKTOP-8PM03B6 MINGW32 ~/Desktop/lab 2
$ arm-none-eabi-objdump.exe -h startup.o
startup.o:      file format elf32-littlearm

Sections:
Idx Name          Size      VMA           LMA           File off  Algn
 0 .text          00000010  00000000  00000000  00000034  2**2
CONTENTS, ALLOC, LOAD, RELOC, READONLY, CODE
 1 .data          00000000  00000000  00000000  00000044  2**0
CONTENTS, ALLOC, LOAD, DATA
 2 .bss           00000000  00000000  00000000  00000044  2**0
```