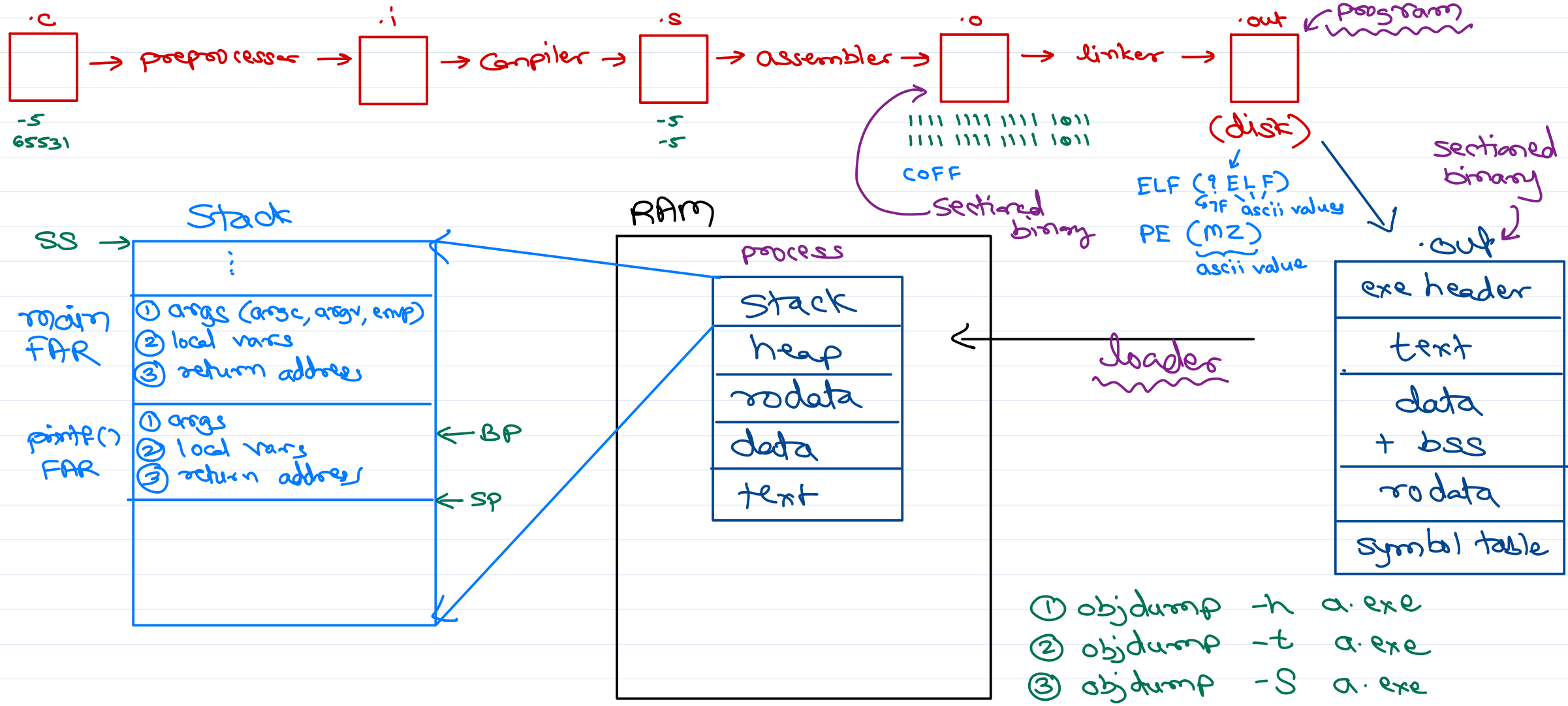




Embedded C Programming

Trainer: Nilesh Ghule





Q. what is difference betn two codes? Is there any change in size of executable?

Q. what is relation betn size of .c file, .obj file and .exe file? elaborate?
Ans: $\text{size}(.c) < \text{size}(.obj) < \text{size}(.exe)$

```
int arr[10000];  
int main() {  
    printf("%lu", sizeof(arr));  
    return 0;  
}
```

← uninitialized global variable → **bss**

→ the var is to be created at runtime (while loading)
i.e. var will get memory only at runtime. No space given in executable file.

```
int arr[10000] = {0};  
int main() {  
    printf("%lu", sizeof(arr));  
    return 0;  
}
```

← initialized global variable → **ds**

→ the var info with initialized values is stored in executable. In .exe 40000 bytes given to var (stores 0).
At runtime loader will load whole ds from exe into RAM (along with these 40000 bytes of arr) and actual var will be created in RAM.





Thank you!

Nilesh Ghule <nilesh@sunbeaminfo.com>

