

RAM

(Random Access Memory)

STACK

&String

let s = &s1;
s

name	value
ptr	→

String Reference

String

let s1 = String::from("hello world");
s1

name	value
ptr	→
len	11
capacity	11

String

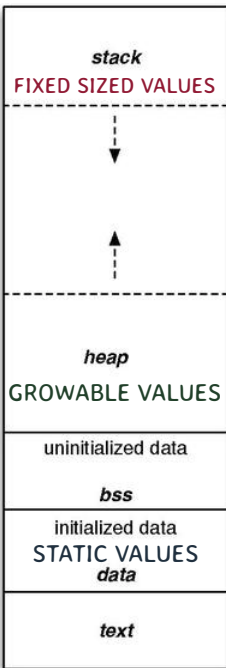
&str

let world = &s1[6..11];
world

name	value
ptr	→
len	5

String Slice [HEAP]

UYARI: &s1[6..11] gibi string slicelar
char offset değil byte offsettir.
2 byte'lık bir char'da örneğin 'ç' harfinde
slice alırsan hata verebilir.



HEAP

index	value
0	h
1	e
2	l
3	l
4	o
5	
6	w
7	o
8	r
9	l
10	d

DATA

`data` segment of
application binary

Program executable

index	value
0	H
1	i
2	.

&str point ettiği value
3 yerden birinde olabilir:

HEAP

BINARY(DATA)

STACK

&str

greeting

// greeting: &'static str
let greeting = "Hi.";

name	value
ptr	→
len	3

String Literal [BINARY]

II

III

let bytes_arr : [u8; 4] = [240, 159, 145, 141]; // stack'ta
let thumbs_up = str::from_utf8(&bytes_arr).unwrap(); // stack'ta 🍷

&str

thumbs_up

name	value
ptr	→
len	4

String Slice [STACK]

[u8]

bytes_arr

index	value
0	240
1	159
2	145
3	141

[u8; N] bytes array [STACK]