	APS 105 Lecture 22	
(when	hat control in a cross tall delivery s	and an of
	Last time: 2D arrays and how to d	ynomically allocate
	201 A Sinte Lander	age In hell
	Today: Big picture recop and	strings
	Example code	
charge .	The way of the second second	Main Memory
	#include <stdio.h></stdio.h>	7 com 7 - 2 - 3
	# include <stdio.h> # mcbule <stdlib.h> int global Var = 7;</stdlib.h></stdio.h>	Stack (grows down)
6 P19	int global Var = 7;	down)
	4 P. C.	Function calls
	int finc (int [], int);	and local ranably
	the control of the co	main () func
	int main (void) {	arrpy Sum
	int arr []=[1, 2, 3, 43; int *arr Dy = (int*) malloc (sized(int)*) printf ("Sum of ar elements "ad", func (arr, 4));	
	int *arr Dy = lint*) malloc (site of (int)*	lif Heap (yours up)
	print + ("Sum of an elements /ad,	dynamic memory
	func (arr, 1))	Y
	rehm 0;	
	1	Global variables & constants
	1 - whender of the	global Var [7]
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	gobar var 1.
	int func (int arr [], int Size)?	
	int sum = 0;	Made Codo
1	for (int 1=0; 12 size; 1++)	Machine Code executable file exe
	int sum = 0; for (int i=0; i < Size; i++) sum + = arr[i];	chew lavie hie dut
	return sum;	
	1 SOM	
	J	

	15 mm 22 7012	99 -			
Do we ho	are variable that store words/sentence	es/phroses	7		
assissely i	Shings and a sould be	, i			
	The state of the s				
Did we see	strings before? Yes				
E-g. printf ("Hello world n"); is a shing					
· ·	is a shing				
		Fre			
In C,	a string is a nell-terminated arms	my of char	ns -		
6	indude reidinho	4			
t.g.	char my String [10]; Allies slater	\$			
h-very	*tor mystrong to be a string, it sh	ould hold	9		
Practical cal	characters and last element as "10"	*			
T1 61	char my String [10]; ** *for my String to be a string, it she characters and last clement as "10"	tri	-		
Initalizatio	char my String [] = "Hello";	U			
1 104 13 10	Char my smag [] = Hello;	Plain memo	7		
4	OY	main	-		
	Char my Ming [6] = Hello;	- W			
i teaplyon	Mysma	'H' 'e'			
manus D	Char my String [6] = "Hello"; my String	11'			
	to A				
11. 11.11	(elvin O)	11/			
4 1	mull of L. L.	1200	1		
The state of the s	the 'In' I want	10	-		
1 1 1 2 1 2 2 2 2	null is a character -> type '10' with Ascil et zero	1	-		
	tero An	N. Inc.	-		
1 1 1	Security of the second		}-		
A AVELOR	[i] was trace		7		
	(C) an cons		-		
	mas water				
	(3000 0.00)	7			

(3)

_	But if we have p not pointing to care	Hair menong.			
-	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	[m(x) () .]			
_	char *p = "Wow"; char & [] = "Fine";	mam ()			
-	char s is - Anc				
	p = s; *	3 F 11 n'e' 10'			
	Then, you can do you cannot do				
	The second of th)			
	p[o] = 's';	constants			
	1 = (0)	W' 10' W' (10')			
	S[1] = 'q'; s is an oddress	2			
	not pointer value,	¿ Code			
_	so you can't []				
_	. Change it → COMPILE-TIME	200.11			
N	enother may be dedone and mithalize sto	77 0000			
)					
	E-g. or chars[]	0			
	E.g. or char SLS int space(ownter (char * 5) {	5 th family .			
-	int count = 0:				
	int count=0; for (int i=0; s[i]! = '\0'; i++) if (s[i] == ') count ++;				
	if (s [i] == ' ')	count ++;			
	rehm count;	MADI			
	1	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
	The state of the s	0" = 9 !-			
	T/2				
4	Next time Strings I/O	o Sun Ma			
+	State of the state	12 KNORA			
+					
1					
1					