

Programming is the new literacy

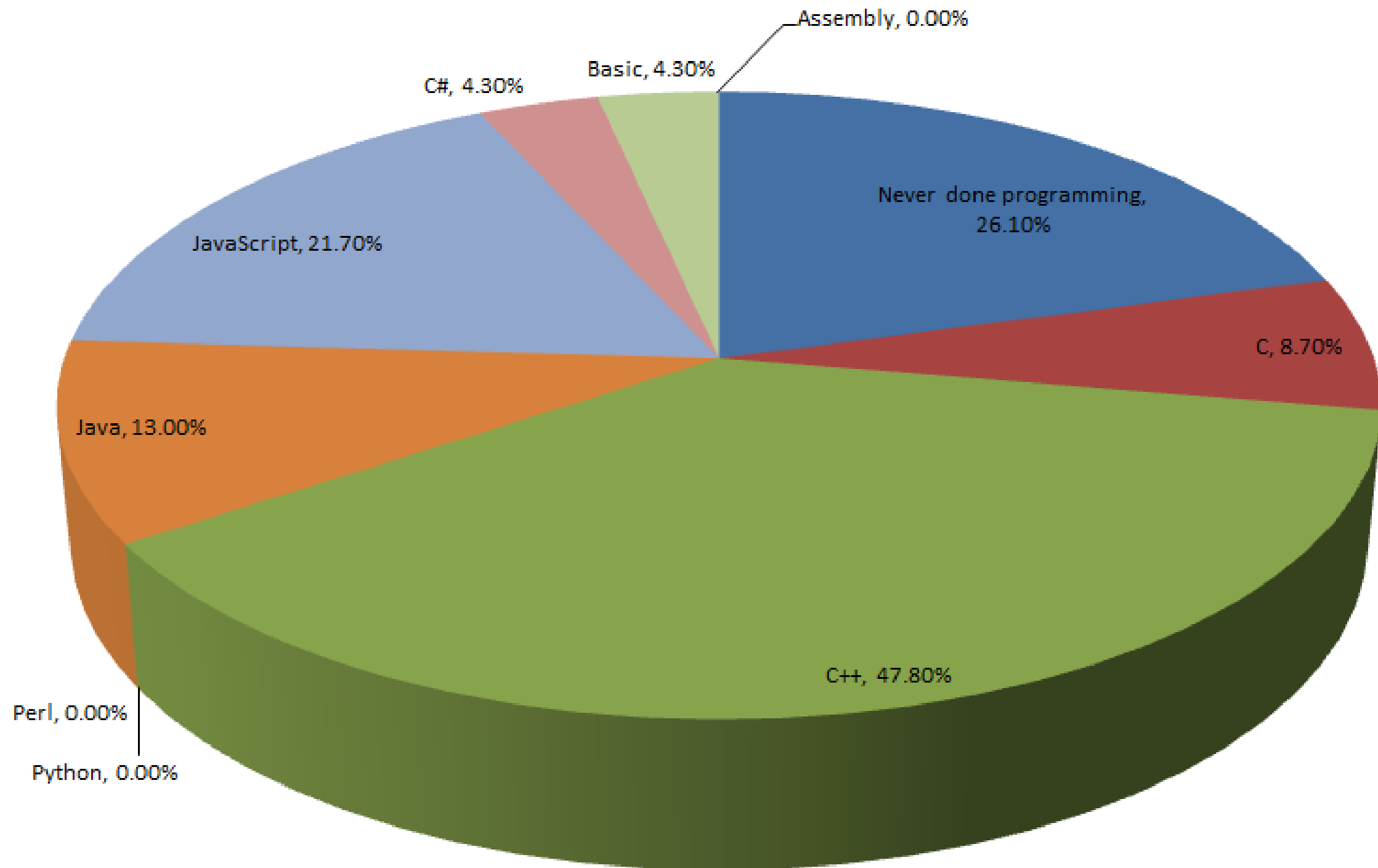
> 1 Billion CPUs out there?



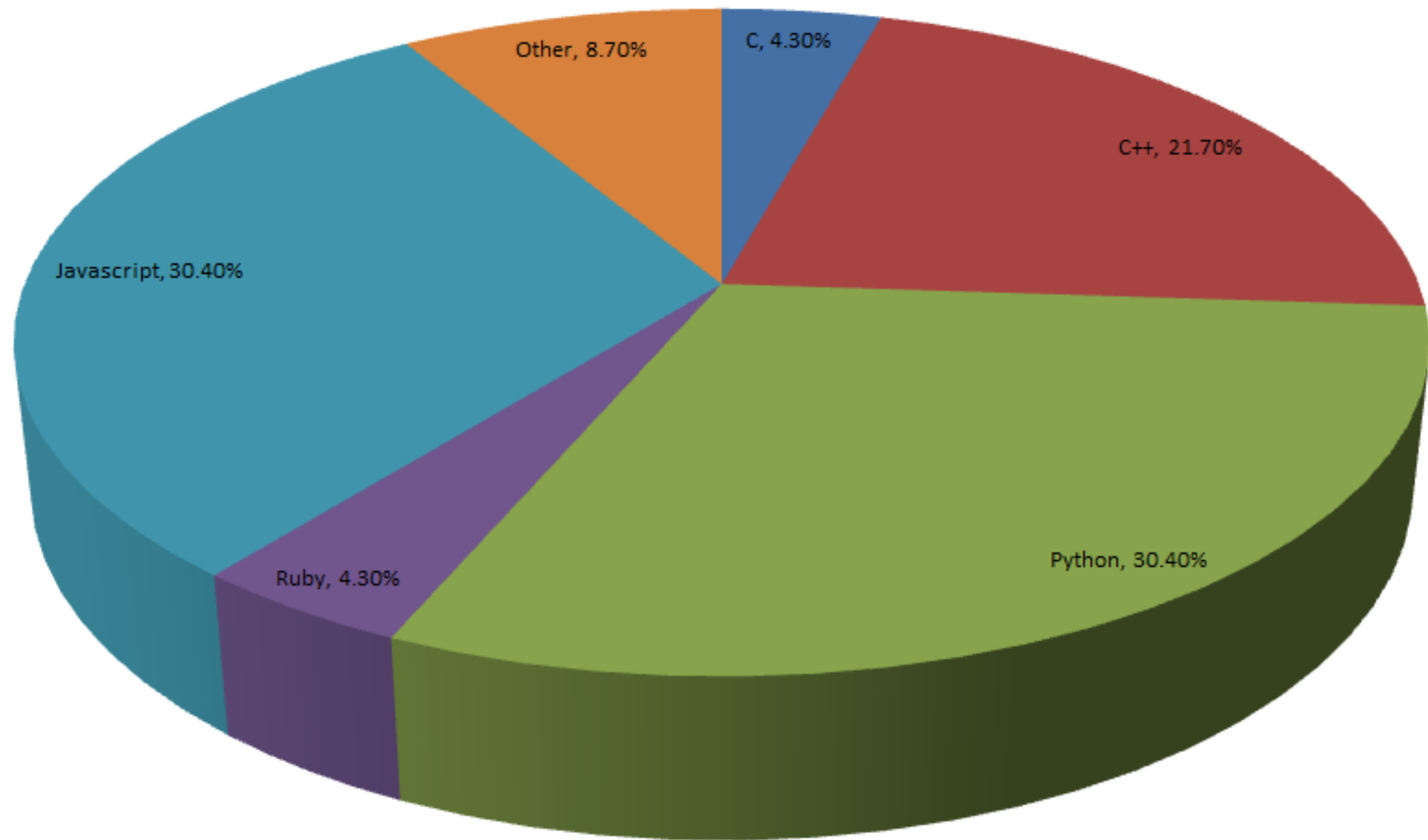
what ultimately matters in this course is not so much where you end up relative to your classmates but where you, in Week 12, end up relative to yourself in Week 0.



Prior Experience



What you wanted?



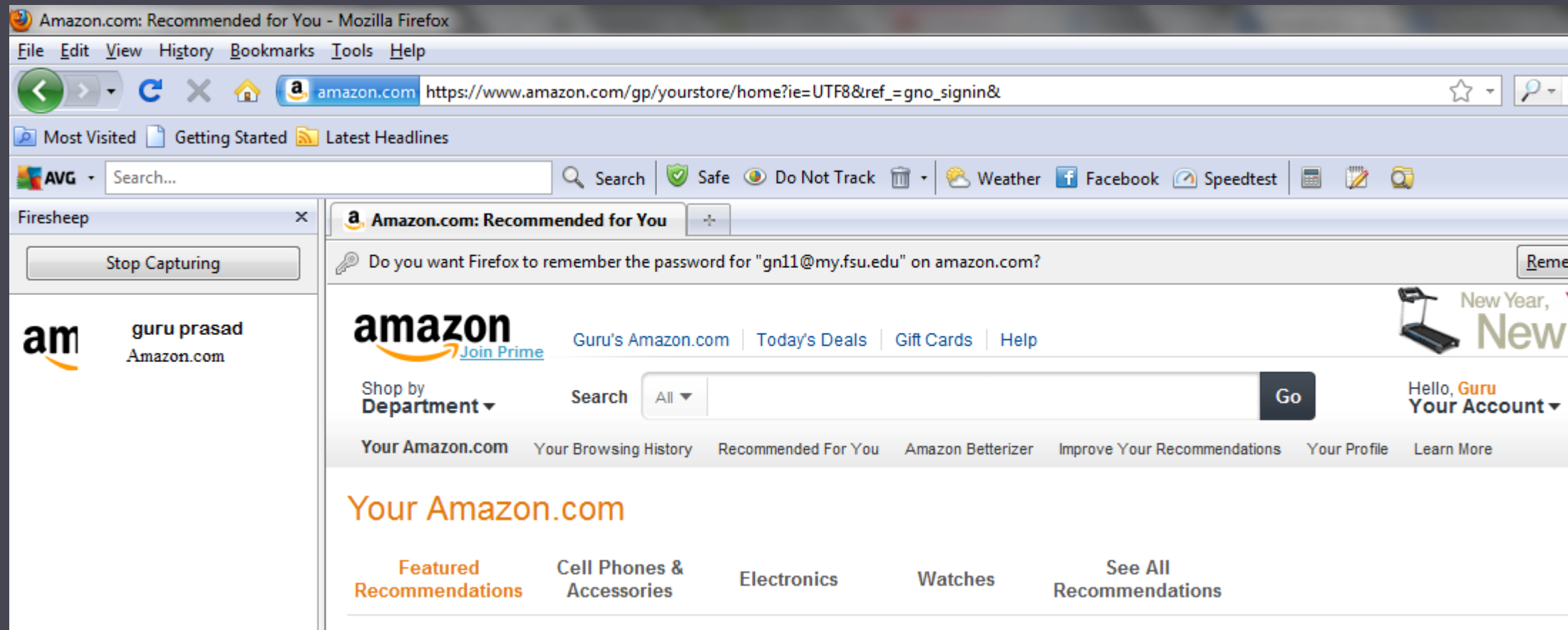
those less comfortable and somewhere in between are
not at a disadvantage vis-à-vis those more comfortable



Firesheep

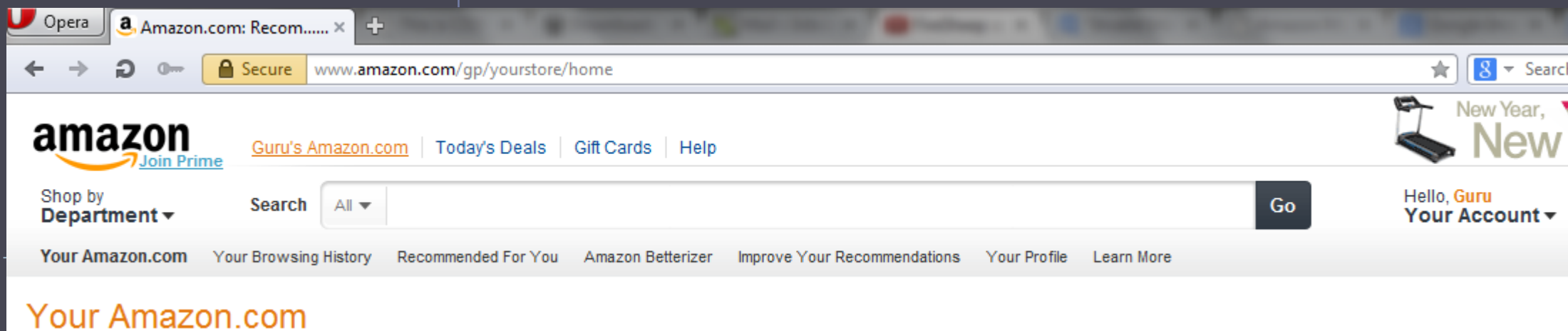
<http://codebutler.com/firesheep>





Firesheep toolbar

Capturing cookie data from
opera browser to the **firefox**
browser



Meeting Point

<http://maps.compgeom.com/>



Where should you meet your friends?

Instant group enclosing q | maps.comgeom.com

mail GF bb Accessing mp3 Met... Components - Twitt... Blib

Meeting Point^β

Tallahassee, FL [Add Address](#)

[Choose Algorithm...](#)

- One Center
- One Mean
- One Median
- Advanced

[Clear](#) [Help](#)

Map OpenStreetMap

Bradley Neff, Samidh Chatterjee, Steven Burgart, James McClain, Piyush Kumar © FSU Computer Science, 2011



A Simple Computer Program

```
#include <stdio.h>
```

```
int
```

```
main(void)
```

```
{
```

```
    printf("Hello World!\n");
```

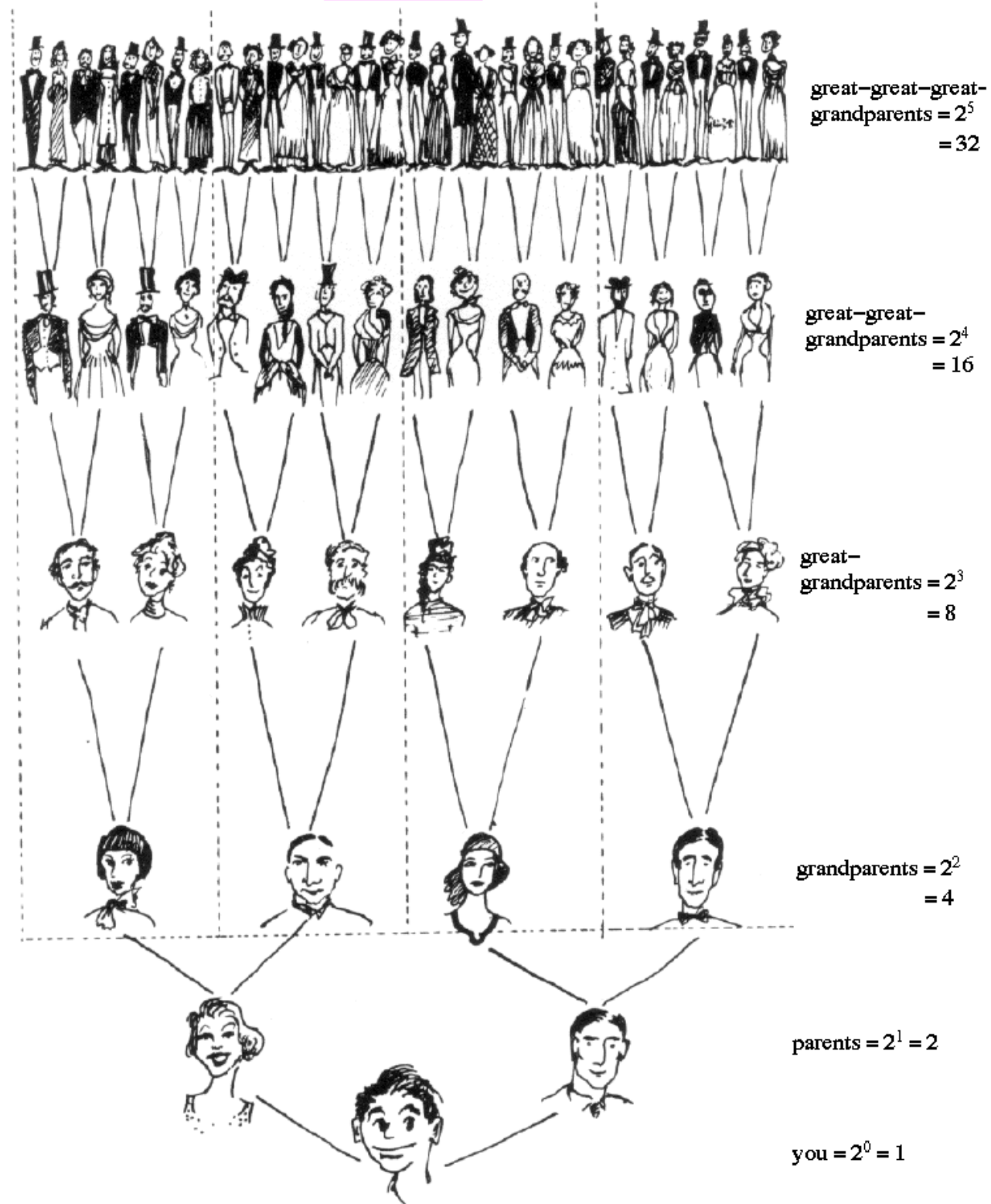
```
}
```



10000011	00000001	00010001	00000000	00111101	11111100	01110100	00111101
0000000001000000		0000000000000000		0000000000000000		0000000000000000	
1001000000000000		0000000000000000		0101000000000000		0000011100110000	
0000101100000001		00001011 00000011		0000101000000000		0000000000000000	
0000000000100000		0000000000000000		0000000000000000		0000000000000000	
0000000000100000		00000000 00000000		0000000000000000		0000000000000000	
0000000000000000		0000000000000000		0000000000000000		0000000000000000	
0111000000010000		0000000000100000		0000000100000000		0000000000000000	
0000000000000000		0000000000100000		0000000100000000		0000000000000000	
0000000000000000		0000000001000000		0000000100000000		0000000000000000	
0000000000010000		0000000001000000		0000000100000000		0000000000000000	
1111111111111111		1111111111111111		1111111111111111		1111111111111111	
1001000010000000		0000000001000000		0000000100000000		0000000000000000	
0010111001100100		0111100101101110		0110000101101101		0110100101100011	
1011000000000100		0000000000100000		0000000100000000		0000000000000000	
1011000000000100		0000000000100000		0000000100000000		0000000000000000	
10100000000000001		0000000000000000		0000000000000000		0000000000000000	
1011000000000100		0000000000000000		0000000000000000		0000000000000000	
0000000000000000		0000000000000000		0000000000000000		0000000000000000	
0000000000000000		0000000000000000		0000000000000000		0000000000000000	
0000000000000000		0000000000000000		0000000000100000		0000000000000000	



Powers of Two



128

64

32

16

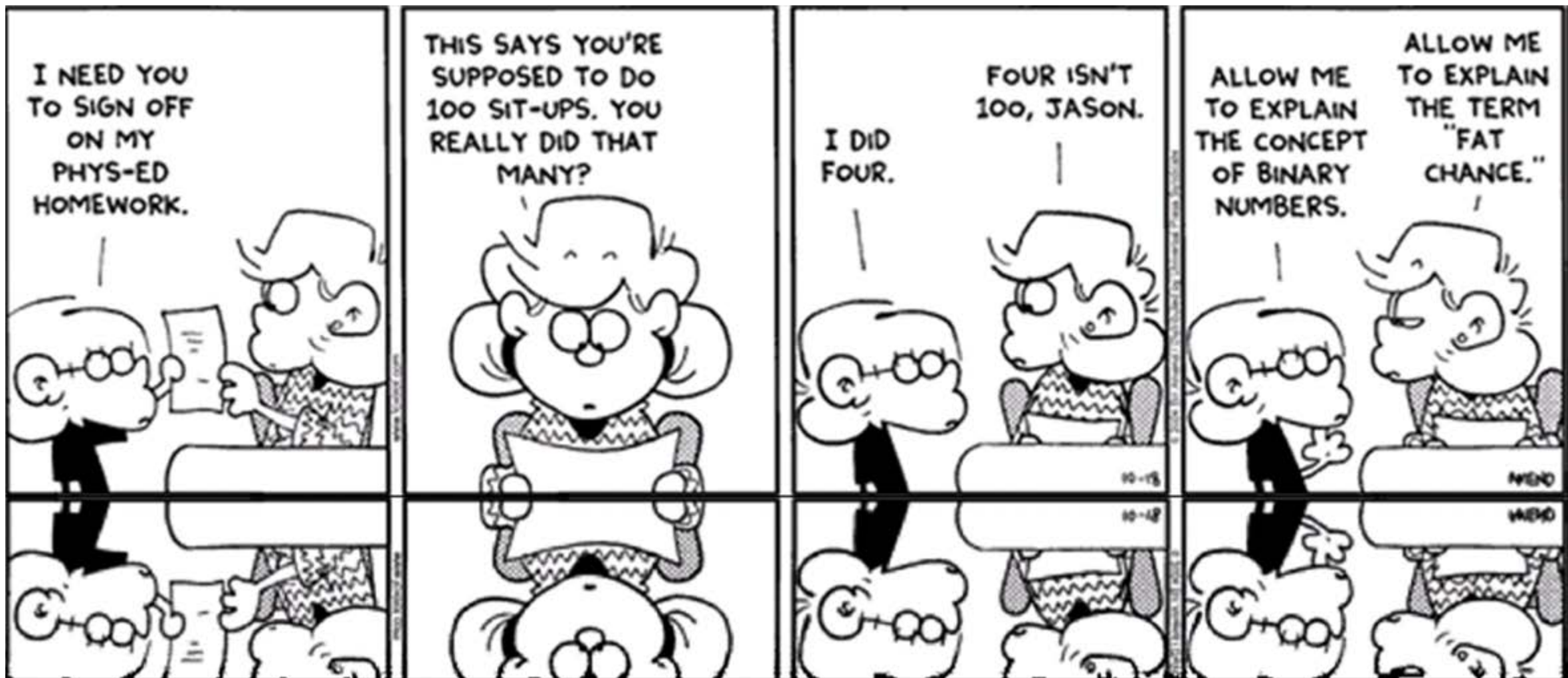
8

4

2

1

Source: James Schombert



0 _{hex} = 0 _{dec} = 0 _{oct}	0	0	0	0
1 _{hex} = 1 _{dec} = 1 _{oct}	0	0	0	1
2 _{hex} = 2 _{dec} = 2 _{oct}	0	0	1	0
3 _{hex} = 3 _{dec} = 3 _{oct}	0	0	1	1
4 _{hex} = 4 _{dec} = 4 _{oct}	0	1	0	0
5 _{hex} = 5 _{dec} = 5 _{oct}	0	1	0	1
6 _{hex} = 6 _{dec} = 6 _{oct}	0	1	1	0
7 _{hex} = 7 _{dec} = 7 _{oct}	0	1	1	1
8 _{hex} = 8 _{dec} = 10 _{oct}	1	0	0	0
9 _{hex} = 9 _{dec} = 11 _{oct}	1	0	0	1
A _{hex} = 10 _{dec} = 12 _{oct}	1	0	1	0
B _{hex} = 11 _{dec} = 13 _{oct}	1	0	1	1
C _{hex} = 12 _{dec} = 14 _{oct}	1	1	0	0
D _{hex} = 13 _{dec} = 15 _{oct}	1	1	0	1
E _{hex} = 14 _{dec} = 16 _{oct}	1	1	1	0
F _{hex} = 15 _{dec} = 17 _{oct}	1	1	1	1

Convert Binary to Hex and vice versa.

01011110101101010010₂ = 0101 1110 1011 0101 0010₂
 = 5 E B 5 2₁₆
 = 5EB52₁₆

Code	Char	Code	Char	Code	Char	Code	Char	Code	Char	Code	Char
32	[space]	48	0	64	@	80	P	96	`	112	p
33	!	49	1	65	A	81	Q	97	a	113	q
34	"	50	2	66	B	82	R	98	b	114	r
35	#	51	3	67	C	83	S	99	c	115	s
36	\$	52	4	68	D	84	T	100	d	116	t
37	%	53	5	69	E	85	U	101	e	117	u
38	&	54	6	70	F	86	V	102	f	118	v
39	'	55	7	71	G	87	W	103	g	119	w
40	(	56	8	72	H	88	X	104	h	120	x
41	)	57	9	73	I	89	Y	105	i	121	y
42	*	58	:	74	J	90	Z	106	j	122	z
43	+	59	;	75	K	91	[	107	k	123	{
44	,	60	<	76	L	92	\	108	l	124	
45	-	61	=	77	M	93	]	109	m	125	}
46	.	62	>	78	N	94	^	110	n	126	~
47	/	63	?	79	O	95	_	111	o	127	[backspace]

41	\	03	5	10	O	02	-	111	o	151	[backspace]
40	.	05	>	18	N	04	v	110	u	150	~
42	-	01	=	11	M	03	]	100	w	152	}
44	,	00	<	10	L	05	/	108	i	154	
43	+	00	:	12	K	01	[	101	k	153	{

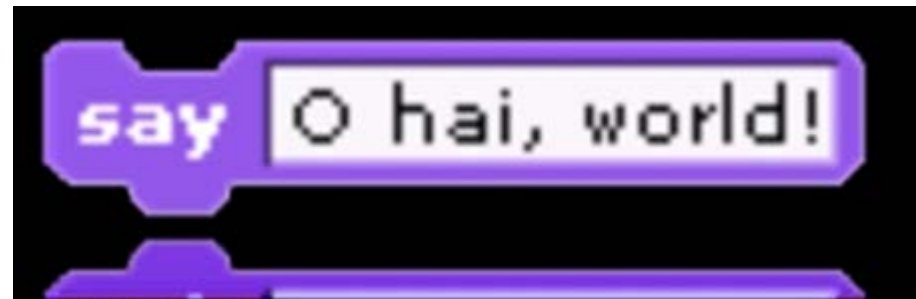
Also valid UTF-8







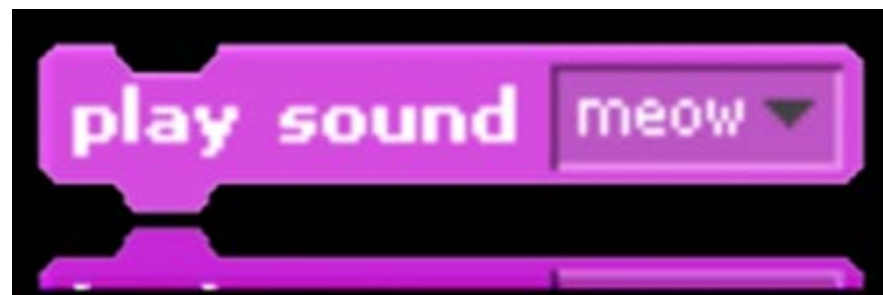
statements



statements



statements



Boolean expressions



Boolean expressions



Boolean expressions



Boolean expressions



Boolean expressions



Boolean expressions

FAS	▼	Fall	▼	Search	🔍	start over
All Faculty	▼	All Fields of Study	▼			
All Levels	▼	☐ course ≥ 4.0	▼	doesn't conflict with ☐ Courses I'm Taking ☐ busy blocks		
☐ satisfies Gen Ed	▼	☐ faculty ≥ 4.0	▼			
☐ allows cross registration						
☐ offered this year						
☐ on friends' lists						
☐ on friends' lists						
☐ offered this year						
☐ allows cross registration						



conditions



conditions



conditions



loops



loops



variables

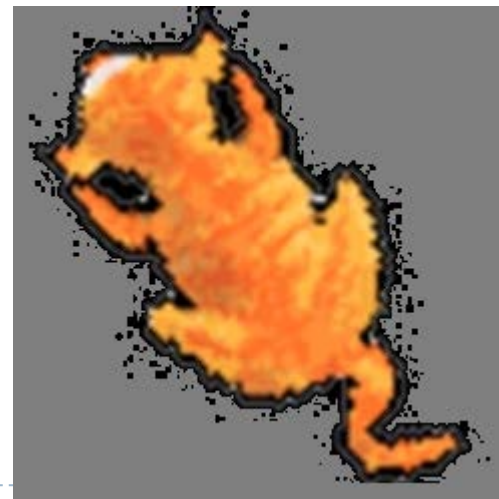


arrays





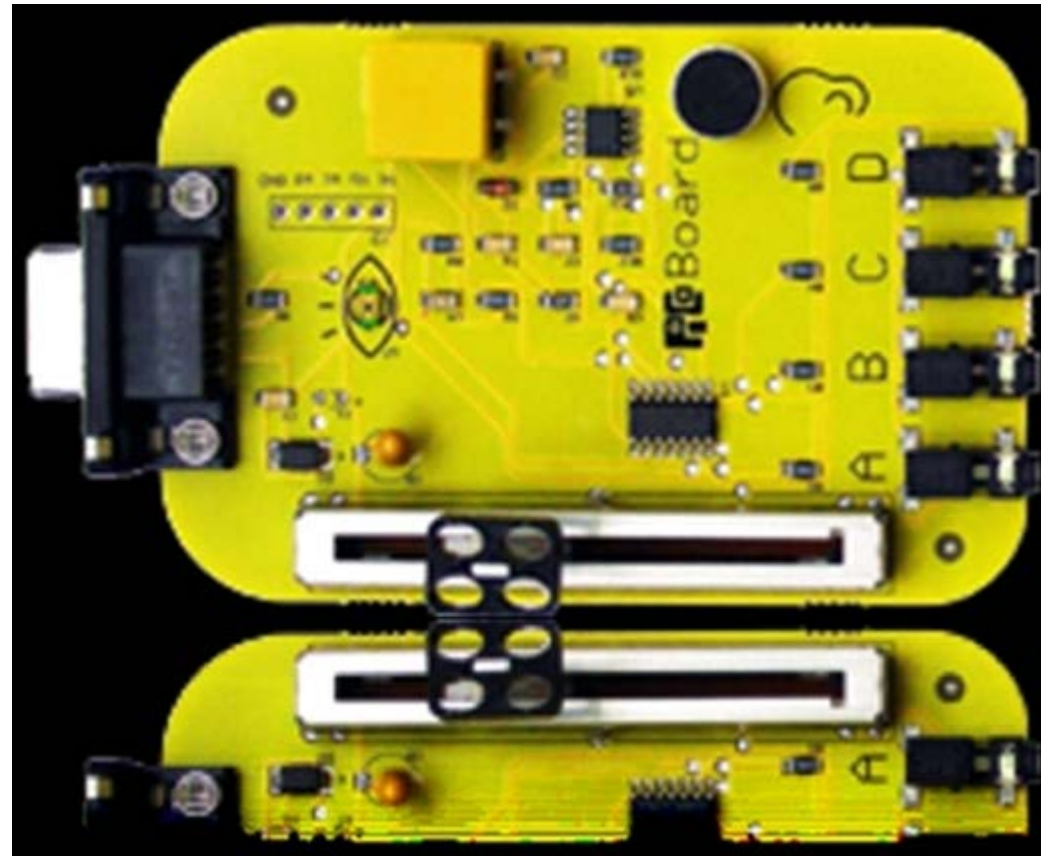
threads



events



sensors



to be continued...

Homework 1 is posted on webpage

Quiz 1 coming soon

