Substring
Pulling out pieces of a String

String b = "Barack Hussein Obama";
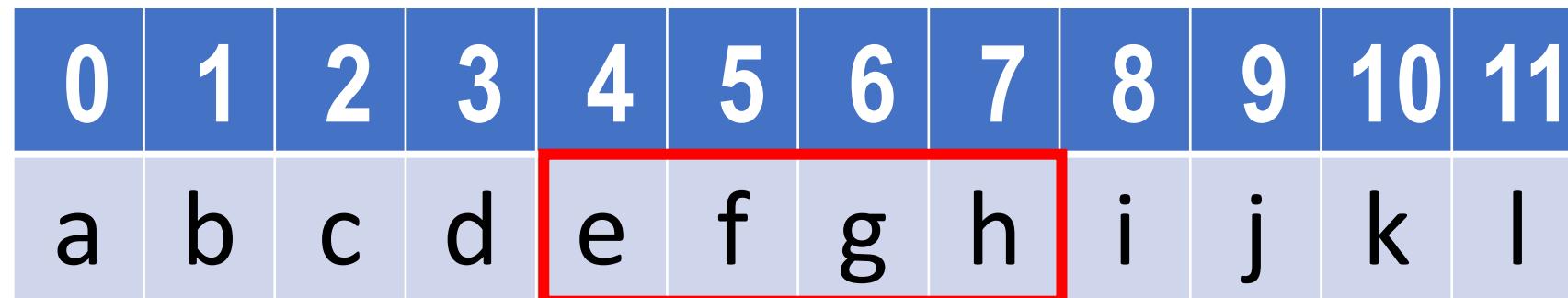
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
B	a	r	a	c	k		H	u	s	s	e	i	n		O	b	a	m	a

How do you print "Hussein" only?

System.out.println(b.substring (__, __));

String b = "Barack Hussein Obama";

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
B	a	r	a	c	k		H	u	s	s	e	i	n		O	b	a	m	a

How do you print out the first name no matter how long it is?

System.out.println(b.substring (__, __));

String b = "Barack Hussein Obama";

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
B	a	r	a	c	k		H	u	s	s	e	i	n		O	b	a	m	a

Start

End one before

How do you print out the first name no matter how long it is?

System.out.println(b.substring(0, b.indexOf(' ')));

Start

End one before

Peeling off Layers

Processing one word at a time from a String

```java
public class loopString {
  public static void main (String args[])  {
     new loopString ();
  }

  public loopString () {
     //Peels off one word at a time using a space
1    String s = "ape bird cat dog elephant fish giraffe";
2    String current = "";
     //All except last
3    while (s.indexOf (' ') != -1) {
4       current = s.substring (0, s.indexOf (' '));
5       s = s.substring (s.indexOf (' ') + 1, s.length ());
6       System.out.println (current);
7     }
     //Process last leftover word
8     current = s;
9     System.out.println (current);
  }
}
```

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```

Is the char ' ' in s?

s.indexOf (' ') returns -1 if the char ' ' isn't there

String s:

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
a	p	e		b	i	r	d		c	a	t		d	o	g		e	l	e	p	h	a	n	t		f	i	s	h		g	i	r	a	f	f	e

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What is s.indexOf (' ')?

What is s.indexOf (' ')+1?

What is s.length ()?

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a	p	e		b	i	r	d		c	a	t		d	o	g		e	l	e	p	h	a	n	t		f	i	s	h		g	i	r	a	f	f	e

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What is s.indexOf (' ')?

3

What is s.indexOf (' ')+1?

4

37

What is s.length ()?

String s:

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
a	p	e		b	i	r	d		c	a	t		d	o	g		e	l	e	p	h	a	n	t		f	i	s	h		g	i	r	a	f	f	e

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5   33

What is s.length ()?

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b	i	r	d		c	a	t		d	o	g		e	l	e	p	h	a	n	t		f	i	s	h		g	i	r	a	f	f	e

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