Question 3

In this problem, you should input a string "x" (0<length(x) <= 5), and then determine if x **in binary** is a palindrome. If the ASCII code of x **in binary** is a palindrome, you need to output "x is a binary palindrome". Otherwise, you need to output "x is not a binary palindrome". Note that we are judging whether **the binary form of x's ASCII code** is a palindrome, but not the string x.

Moreover, you also need to output the ASCII code of x in form of "the ASCII code is c_1-c_2-c_3-c_4-c_5" (c_i means the ASCII code in decimal of the ith character). And the binary code is in form of "the binary code is b_1-b_2-b_3-b_4-b_5" (b_i means the 8 bits binary code of the ith character). And the exact length of output will depend on the length(x), for example, you will output the ASCII code of x in form of "the ASCII code is c_1-c_2-c_3" when length(x) is equal to 3 and the ASCII code of x in form of "the ASCII code is c_1" when length(x) is equal to 1.

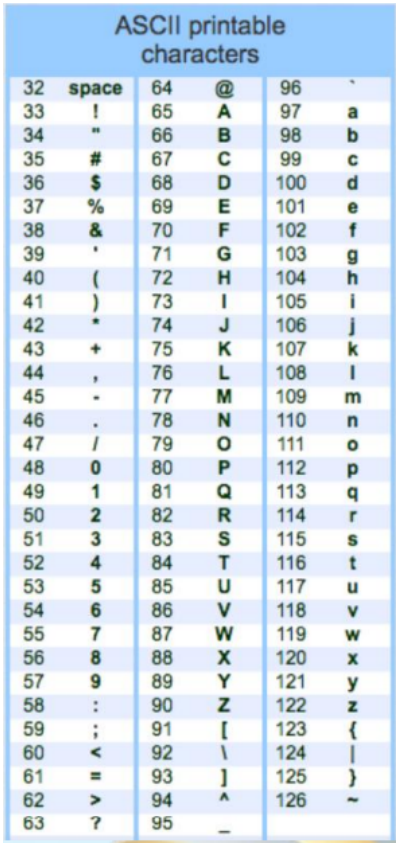
For example: **Fb-->70 98--> 01000110 01100010**. In this case, "Fb" is the input string "x". The ASCII code of "F" is 70, and the ASCII code of "b" is 98. Then translate the ASCII code into an 8-bit binary code: **70-->01000110, 98-->01100010**. Therefore, the binary form of its ASCII code is a palindrome. Finally, what you need to output is the context in the picture.

- ```
  Fb is a binary palindrome
  the ASCII code is 70-98
  the binary code is 01000110-01100010
  ```

Please pay attention to the above description!!!

HINT:

1. The length of the string we count does not include the "\0" added by the system when reading in.
2. The ASCII table has been placed below, all input char will be included in this table.
  ```



ASCII printable characters

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

I/O Examples:

```
input:f
output:
f is a binary palindrome
the ASCII code is 102
the binary code is 01100110
```

```
input:fff
output:
fff is a binary palindrome
the ASCII code is 102-102-102
the binary code is 01100110-01100110-01100110
```

```
input:abfba
output:
abfba is not a binary palindrome
the ASCII code is 97-98-102-98-97
the binary code is 01100001-01100010-01100110-01100010-01100001
```