

# HASH Table

Develop Hash table using Separate Chaining which has following functions

- Add data which contains key as integer and value as string
- Find a value from a given key. If it is found, show its value. Otherwise, shows "-".

This program can show all data in Hash table in format as follows:

(key<sub>0</sub>,value<sub>0</sub>) (key<sub>01</sub>, value<sub>01</sub>) ...

(key<sub>1</sub>,value<sub>1</sub>) (key<sub>11</sub>, value<sub>11</sub>) ...

(key<sub>2</sub>,value<sub>2</sub>)

.....

(key<sub>n-1</sub>, value<sub>n-1</sub>)

If there is no data, show -1 as key and "-" as value.

- Define size of Hash Table to 17

Input each line consists of <command> <key> <value>

Command:

a: add a pair of key,value into Hash Table

p: show a pair of key,value

s: find a value from a given key

e: exit

## Example

a 13 cat : add key = 13 and value = cat

a 17 dog : add key = 17 and value = dog

p : show pair of key,value in Hash. If there are chain, use space as  
delimiter to separate each pair of key,value

s 13 : find a value from key = 13

s 30 : find a value from key = 30

e : exit

Input	Output
a 1415 xxxt	(-1,-)
a 1712 yyyt	(2041,yout)
a 2041 yout	(-1,-)
p	(-1,-)
a 2158 onit	(1415,xxxt)
a 3619 egg	(-1,-)
a 1896 godt	(-1,-)
p	(-1,-)
a 3010 nomt	(-1,-)
a 2589 xdf	(-1,-)
p	(-1,-)
a 7741 rae	(-1,-)
a 3654 eeec	(-1,-)
p	(-1,-)
s 2521	(1712,yyyt)
s 2158	(-1,-)
s 3010	(-1,-)
s 3629	(-1,-)
s 1234	(-1,-)
e	(-1,-)
	(2041,yout)
	(-1,-)
	(-1,-)
	(1415,xxxt)
	(-1,-)
	(-1,-)
	(-1,-)
	(-1,-)
	(1896,godt)
	(-1,-)

	(-1,-)
	(1712,yyt)
	(-1,-)
	(-1,-)
	(3619,egt)
	(2158,onit)
	(-1,-)
	(2041,yout) (3010,nomt)
	(-1,-)
	(-1,-)
	(1415,xxxt)
	(2589,xd)
	(-1,-)
	(-1,-)
	(-1,-)
	(1896,godt)
	(-1,-)
	(-1,-)
	(1712,yyt)
	(-1,-)
	(-1,-)
	(3619,egt)
	(2158,onit)
	(-1,-)
	(2041,yout) (3010,nomt)
	(-1,-)
	(-1,-)
	(1415,xxxt)
	(2589,xd)
	(7741,rae)
	(-1,-)
	(-1,-)

	<div>(1896,godt)</div> <div>(-1,-)</div> <div>(-1,-)</div> <div>(1712,yyyt)</div> <div>(-1,-)</div> <div>(-1,-)</div> <div>(3619,eggt)</div> <div>(2158,onit) (3654,eeec)</div> <div>-</div> <div>onit</div> <div>nomt</div> <div>-</div>
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