

1. Quick Sort

data = [5, 7, 9, 1, 3, 6, 8, 2] ~~min~~ pivot = 2

[2, 7, 9, 1, 3, 6, 8, 5]

↑(1)

↑(8)

[2, 7, 9, 1, 3, 6, 8, 5]

↑

↑

[2, 7, 9, 1, 3, 6, 8, 5]

↑

↑

[2, 1, 9, 7, 3, 6, 8, 5]

[1, 2, 9, 7, 3, 6, 8, 5]

[9, 2, 3, 6, 7, 5]

pivot 5

[5, 7, 3, 6, 7, 9]

↑

↑

[5, 7, 3, 6, 8, 9]

↑

↑

[5, 3, 7, 6, 8, 9]

[3, 5, 7, 6, 8, 9]

[7, 6, 8, 9]

↑

↑

pivot 7

[6, 7, 8, 9]

final = [1, 2, 3, 5, 6, 7, 8, 9]

2. Radix Sort

Radix = 6

	a	b	c	D	e	F
0						
1	a					
2		ab				
3			defcd			
4						
5						

input: abc--
da---
ffff-
defcd
abebd
ca---
b----
fef--
dfe-

abebd

order row

~~abc~~
~~abebd~~
~~b~~
~~ca~~
~~da~~
~~defcd~~
~~dfe~~
~~ffff~~
~~fef~~

defcd
abebd
abc--
da---
ffff-
ca---
b----
fef--
dfe--

a	b	c	D	e	F
	abebd	defcd			ffff

abebd
defcd
ffff-
abc--
fef--
dfe--
ca---
da---
b----

a	b	c	D	e	F
	abc		abebd	defcd	ffff
			dfe		fef

a	b	c	D	e	F
ca	abc				
da	abebd				
			defcd		dfe
			fef		ffff

abebd
dfe--
defcd
ffff-
fef--
ca---
da---
b----

a	b	c	D	e	F
abc		ca	da		fef
abebd			defcd		ffff
			dfe		

answer

final = ["abc", "abebd", "ca", "da", "defcd", "dfe", "fef", "ffff"]