

nn

v nl

P

v nl

nn

v nl

nn

	v nl	
	nn	

v nl

v nl

Python
Python

1

2

OS

1

nn

nn

P

ck

Hadoop

1 HDFS HDFS ;
Hive
HQL

1

Python
HTTP
HTTP
Cookie

urllib3 Requests HTTP
Chrome Xpath Beautiful Soup
JSON

1

matplotlib pyplot

1

1

1

	v nl	v nl v nl v nl
	nn	nn nn nn P nn ck nn
		ck cp ck Pn

		! d p ! ! !
		p ! !n ! ! nl np ck !
		p ! !n ! ! nl np ck !
		p ! !n ! ! nl np ck !