Event

Rating, purchase, click, watch, ...

value

user

item

Demographics, ...

Price, category, ...

Matrix: R

Items: $\mathcal{I}$

	1	2	3	4	5	6
a	5		1	1		2
b		2		4		4
c	4	5		1	1	2
d			3	5	2	
e	2		1		4	4

Users: $\mathcal{U}$

Recommender

Top-k recommendations