

Test proposed functionality in issue:

Output of original way to extract ordered column:

	age_group
0	[40, 50)
1	[20, 30)
2	[50, 60)
3	[40, 50)
4	[30, 40)
5	[30, 40)
6	[40, 50)
7	[50, 60)
8	[40, 50)
9	[50, 60)
10	[50, 60)
11	[50, 60)
12	[30, 40)
13	[20, 30)
14	[30, 40)
15	[40, 50)
16	[40, 50)
17	[20, 30)
18	[30, 40)
19	[50, 60)

Updated extraction of ordered column:

	age_group
0	[40, 50)
1	[20, 30)
2	[50, 60)
3	[40, 50)
4	[30, 40)
5	[30, 40)
6	[40, 50)
7	[50, 60)
8	[40, 50)
9	[50, 60)
10	[50, 60)
11	[50, 60)
12	[30, 40)
13	[20, 30)
14	[30, 40)
15	[40, 50)
16	[40, 50)
17	[20, 30)
18	[30, 40)
19	[50, 60)

Test proposed functionality for unordered in issue:

Output of original way to extract unordered column:

```
    eye_color
0      brown
1      brown
2       blue
3      brown
4      brown
5       blue
6      brown
7       blue
8       blue
9       blue
10      blue
11     brown
12      blue
13     brown
14     brown
15      blue
16     brown
17      blue
18      blue
19      blue
```

Updated extraction of unordered column:

```
    eye_color
0      brown
1      brown
2       blue
3      brown
4      brown
5       blue
6      brown
7       blue
8       blue
9       blue
10      blue
11     brown
12      blue
13     brown
14     brown
15      blue
16     brown
17      blue
18      blue
19      blue
```

Test functionality for all columns in issue:

Output of original way to extract categorical columns:

	eye_color	age_group
0	brown	[40, 50)
1	brown	[20, 30)
2	blue	[50, 60)
3	brown	[40, 50)
4	brown	[30, 40)
5	blue	[30, 40)
6	brown	[40, 50)
7	blue	[50, 60)
8	blue	[40, 50)
9	blue	[50, 60)
10	blue	[50, 60)
11	brown	[50, 60)
12	blue	[30, 40)
13	brown	[20, 30)
14	brown	[30, 40)
15	blue	[40, 50)
16	brown	[40, 50)
17	blue	[20, 30)
18	blue	[30, 40)
19	blue	[50, 60)

Updated extraction of categorical column:

	eye_color	age_group
0	brown	[40, 50)
1	brown	[20, 30)
2	blue	[50, 60)
3	brown	[40, 50)
4	brown	[30, 40)
5	blue	[30, 40)
6	brown	[40, 50)
7	blue	[50, 60)
8	blue	[40, 50)
9	blue	[50, 60)
10	blue	[50, 60)
11	brown	[50, 60)
12	blue	[30, 40)
13	brown	[20, 30)
14	brown	[30, 40)
15	blue	[40, 50)
16	brown	[40, 50)
17	blue	[20, 30)
18	blue	[30, 40)
19	blue	[50, 60)

Test functionality for delegated as\_unordered method:

Original Categories:

age\_group categories was: `IntervalIndex([[20, 30), [30, 40), [40, 50), [50, 60)],  
dtype='interval[int64, left]')`

eye\_color categories was: `Index(['blue', 'brown'], dtype='object')`

Exptected Output after remove which works on all columns:

age\_group categories is: `Index([[20, 30), [30, 40), [40, 50), [50, 60), 0], dtype='object')`

eye\_color categories is: `Index(['blue', 'brown', 0], dtype='object')`