Collection View-Vertical(b)

Collection View Cell

View

Collection View-Horizontal (a)

Scroll View - Horizontal

Collection View cell - Set Content inset to push the cells down

Storyboard:

1. Add horizontal collection view(consider it as 'a' in figure) with paging enabled in storyboard.
2. Add collection view cell with vertical collection view(consider it as 'b' in figure) as subview in it. And add dummy cell in vertical collection view.
3. Add header view on top of the collection view in view controller.

ViewController:

1. Implement datasource and delegate for (a) in view controller
2. Create closure or protocol to observe the vertical collection view(b) content offset
3. Set content inset for collection view(b) in cellForRowAtIndexPath: to push down the content.
4. And assign closure or delegate (in point 2) to collection view cell.

Collection View:

1. Implement datasource and delegate for (b) in collection view.
2. Override scrollViewDidScroll: for content offset and pass it to view controller

Scroll Events:

1. Vertical Scroll:
   - On vertical scroll, pass the content offset of the collection view(b) in cell to view controller. Calculate the header view Y position to move it along with the scroll
2. Horizontal Scroll:
   - By default content offset for collection view (b) will have the initial value which is equal to the negative content inset. On horizontal scroll, to match with current offset get the current cell's collection view(b) offset and set it to the new cell in cellForRowAtIndexPath: