```python
1: # Brygg Ullmer, Clemson University
2: # Begun 2022-11-01
3: # Content engaging https://github.com/DataKind-DC/homelessness-service-navigator
4:
5: WIDTH  = 1024
6: HEIGHT = 1024
7:
8: from enoDomHomelessness import *
9:
10: class enoUiHomelessnessPgz:
11:
12:   edh    = None   #enoDomHomelessness
13:   actors = None
14:   actor2category   = None
15:   actor2homePos    = None
16:   category2actor   = None
17:   selectedCategory = None
18:
19:   animationId          = 2 #1, 2, perhaps more: different patterns of animation
20:   animateDuration      = .5
21:   animateTween         = 'accel_decel'
22:   selectedXOffset1     = 200
23:   selectedXOffset2     = 200
24:
25:   basePos           = (0, 0)
26:   basePosUnselected = (500, 100)
27:   basePosSelected   = (0, 0)
28:
29:   ##################### constructor #####################
30:
31:   def __init__(self, **kwargs):
32:     self.__dict__.update(kwargs) #allow class fields to be passed in constructor
33:     #https://stackoverflow.com/questions/739625/setattr-with-kwargs-pythonic-or-no
t
34:
35:     self.edh = enoDomHomelessness()
36:     self.buildUI()
37:
38:   ##################### build UI #####################
39:
40:   def buildUI(self):
41:     self.actors = [];         self.actor2homepos = {}
42:     self.actor2category = {}; self.category2actor = {}
43:
44:     categories = self.edh.getCategories()
45:
46:     x, y = self.basePos
47:
48:     for category in categories:
49:       imgFn = self.edh.getImageFn(category)
50:       pos   = (x, y)
51:       a1    = Actor(imgFn, topleft=pos)
52:
53:       self.actors.append(a1)
54:       self.actor2category[a1]       = category
55:       self.category2actor[category] = a1
56:       self.actor2homepos[category]  = pos
57:       y                             += self.edh.yOffset
58:
59:   ##################### animate selected #####################
60:
61:   def animateSelected(self, category):
62:     aId = self.animationId
63:
64:     if aId == 1: self.animateSelectedRight1(category)
65:     if aId == 2: self.animateSelectedRight2(category)
66:
67: ##################### animate selected : simple right-animation #############
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#######
    68:
    69:     def animateSelectedRight1(self, category): # simpler animation, albeit less usef
ul
    70:         d = self.animateDuration; t = self.animateTween
    71:
    72:         a1  = self.category2actor[category]
    73:         x,y = self.actor2homepos[category]
    74:         x  += self.selectedXOffset1
    75:         animate(a1, topleft=(x, y), duration=d, tween=t)
    76:         self.selectedCategory = category
    77:
    78:         if self.selectedCategory is not None:
    79:           sc = self.selectedCategory
    80:           a2 = self.category2actor[sc]
    81:           x2, y2 = self.actor2homepos[sc]
    82:           animate(a2, topleft=(x2,y2), duration=d, tween=t)
    83:
    84: ##################### animate selected : more evolved right-animation ##########
############
    85:
    86:     def animateSelectedRight2(self, category): # slightly more evolved, useful anima
tion
    87:         d = self.animateDuration; t = self.animateTween
    88:         categories = self.edh.getCategories()
    89:         sx, sy = self.basePosUnselected #sx, sy: side x, y, for unselected
    90:
    91:         for c in categories:
    92:           if c == category: continue #bypass match for unselected sidebar
    93:           a2  = self.category2actor[c]
    94:           sy += self.edh.yOffset
    95:           animate(a2, topleft=(sx,sy), duration=d, tween=t)
    96:
    97:         a1  = self.category2actor[category]
    98:         x,y = self.basePosSelected
    99:         animate(a1, topleft=(x, y), duration=d, tween=t)
   100:         self.selectedCategory = category
   101:
   102:     ##################### draw #####################
   103:
   104:     def draw(self):
   105:       for actor in self.actors: actor.draw()
   106:
   107:     ##################### draw #####################
   108:
   109:     def onMouseDown(self, pos):
   110:       for actor in self.actors:
   111:         if actor.collidepoint(pos):
   112:           category = self.actor2category[actor]
   113:           print("pushed:", category)
   114:           self.animateSelected(category)
   115:
   116: #################################################
   117:
   118: enoUiH = enoUiHomelessnessPgz()
   119:
   120: ##################### draw #####################
   121: def draw():
   122:   screen.clear()
   123:   enoUiH.draw()
   124:
   125: #################### on_mouse_down ####################
   126: def on_mouse_down(pos):
   127:   enoUiH.onMouseDown(pos)
   128:
   129: ### end ###
   130:
```