```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-not
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:
```