

NAME

GUI

DESCRIPTION

Module for a GUI that displays the calculated routes for several test-cases.

CLASSES

builtins.object

GUI

```
class GUI(builtins.object)
```

```
| Methods defined here:
```

```
|
```

```
| __init__(self, title, geo, routes)
```

```
| :param title: title for the GUI
```

```
| :param geo: size of the GUI
```

```
| :param routes: all the routes that will be displayed
```

```
| :type title: basestring
```

```
| :type geo: basestring
```

```
| :type routes: dict containing instances of Route
```

```
|
```

```
| addButton(self, frame, func)
```

```
| :param frame: frame for which the buttons are being added
```

```
| :param func: function that will be assigned to the buttons
```

```
| :type frame: tkinter.Frame
```

```
| :type func: function
```

```
| :return: void. Function simply adds buttons to the Frame
```

```
|
```

```
| calculateCoordinates(self, x, y)
```

```
| :param x: x-coordinate
```

```
| :param y: y-coordinate
```

```

| :type x: float/integer
| :type y: float/integer
| :return: newly calculated x and y coordinates
| :rtype: float/integer
|
| connections(self, canvas, route)
| :param canvas: canvas that's being drawn on
| :param route: Route that contains all the Cities and therefore also contains the connections
| :type canvas: tkinter.Canvas
| :type route: Route
| :return: void. Function will call 'drawConnections' to actually draw the connections
|
| drawConnections(self, canvas, city, neighbors, color)
| :param canvas: canvas that's being drawn on
| :param city: current city for which the connections are being drawn for
| :param neighbors: the neighbors of the current city
| :param color: color of the lines
| :type canvas: tkinter.Canvas
| :type city: City
| :type neighbors: list containing instances of City
| :type color: basestring
| :return: void. Function will draw lines on the canvas that represent the connections between
each city and it's neighbors
|
| drawRoute(self, canvas, route)
| :param canvas: canvas that will be drawn on
| :param route: Route that will be drawn onto the canvas
| :type canvas: tkinter.Canvas
| :type route: Route
| :return: void. Function draws the Route onto the canvas
|

```

```

| home(self)
|     This function draws the home-screen on the GUI
|     :return: void
|
| makeCircle(self, canvas, x, y)
|     :param canvas: canvas that's being drawn on
|     :param x: x-coordinate for the circle
|     :param y: y-coordinate for the circle
|     :type x: integer/float
|     :type y: integer/float
|     :type canvas: tkinter.Canvas
|     :return: circle
|     :rtype: canvas.create_oval
|
| mapFrame(self, route, frame=None, result=False)
|
| moveBack(self, currFrame)
|     :param currFrame: current Frame from which is beig moved back from
|     :type currFrame: tkinter.Frame
|     :return: void. Function makes the currFrame dissappear and lets the homeFrame appear
|
| -----
| Data descriptors defined here:
|
| __dict__
|     dictionary for instance variables (if defined)
|
| __weakref__
|     list of weak references to the object (if defined)

```

DATA

ACTIVE = 'active'
ALL = 'all'
ANCHOR = 'anchor'
ARC = 'arc'
BASELINE = 'baseline'
BEVEL = 'bevel'
BOTH = 'both'
BOTTOM = 'bottom'
BROWSE = 'browse'
BUTT = 'butt'
CASCADE = 'cascade'
CENTER = 'center'
CHAR = 'char'
CHECKBUTTON = 'checkbutton'
CHORD = 'chord'
COMMAND = 'command'
CURRENT = 'current'
DISABLED = 'disabled'
DOTBOX = 'dotbox'
E = 'e'
END = 'end'
EW = 'ew'
EXCEPTION = 8
EXTENDED = 'extended'
FALSE = 0
FIRST = 'first'
FLAT = 'flat'
GROOVE = 'groove'
HIDDEN = 'hidden'
HORIZONTAL = 'horizontal'
INSERT = 'insert'

INSIDE = 'inside'

LAST = 'last'

LEFT = 'left'

MITER = 'miter'

MOVETO = 'moveto'

MULTIPLE = 'multiple'

N = 'n'

NE = 'ne'

NO = 0

NONE = 'none'

NORMAL = 'normal'

NS = 'ns'

NSEW = 'nsew'

NUMERIC = 'numeric'

NW = 'nw'

OFF = 0

ON = 1

OUTSIDE = 'outside'

PAGES = 'pages'

PIESLICE = 'pieslice'

PROJECTING = 'projecting'

RADIOBUTTON = 'radiobutton'

RAISED = 'raised'

READABLE = 2

RIDGE = 'ridge'

RIGHT = 'right'

ROUND = 'round'

S = 's'

SCROLL = 'scroll'

SE = 'se'

SEL = 'sel'

SEL_FIRST = 'sel.first'

SEL_LAST = 'sel.last'

SEPARATOR = 'separator'

SINGLE = 'single'

SOLID = 'solid'

SUNKEN = 'sunken'

SW = 'sw'

TOP = 'top'

TRUE = 1

TclVersion = 8.6

TkVersion = 8.6

UNDERLINE = 'underline'

UNITS = 'units'

VERTICAL = 'vertical'

W = 'w'

WORD = 'word'

WRITABLE = 4

X = 'x'

Y = 'y'

YES = 1

wantobjects = 1