

## Keyboard Movement Code Exercises

- a) Add keypresses for the other directions for movement
- b) Implement “walls” on all sides of the canvas.
- c) Create a random teleport key
- d) Create a canvas background
- e) Create a key that changes the moving image

```
from tkinter import *
import time
import random

def moveleft(event):
    global xdir
    xdir=-1

# main
root=Tk()
root.title("Moving Objects")
root.geometry("800x600+0+0")

c=Canvas(root,width=700,height=500,bg="black")
c.place(x=10,y=10)

img = PhotoImage(file='puppy.png')

# Bind keys to functions
root.bind("<Left>",moveleft)
puppy = c.create_image(300,300,image=img)

# intial location of puppy

x=200
y=200
xdir = -1
ydir =0

speed = 2
moving = True

while moving :
    x=x+ xdir * speed
```

```
y=y+ ydir * speed

# Check Left Wall
if x<=5 :
    xdir=xdir*-1

c.moveto(puppy,x,y) # move point to new location
time.sleep(0.1)
root.update() # redraw canvas

root.mainloop()
```