**Event Detection Part II: Mouse**

For this part, we will look at mouse events, particularly:

pygame.MOUSEMOTION

pygame.MOUSEBUTTONUP

pygame.MOUSEBUTTONDOWN

These events are triggered whenever the mouse moves, or a button is pressed or released. To use them, place them in our game loop:

gameOn = True

while gameOn:

for event in pygame.event.get():

if event.type == pygame.QUIT:

sys.exit()

elif event.type == pygame.MOUSEBUTTONDOWN:

sound.play()

Here is a little short cut: instead of continually writing “pygame.” for each constant, we can import all the constants by writing this at the top of our code:

from pygame.locals import \*

This means “bring in all the variables found in the locals module of pygame.”

Now we can drop the “pygame.” module extension for our constants.

gameOn = True

while gameOn:

for event in pygame.event.get():

if event.type == QUIT:

sys.exit()

elif event.type == MOUSEBUTTONDOWN:

sound.play()

One useful thing to know is where the mouse coordinates are when these events happen. To do this we use the get\_pos() function in the pygame.mouse module:

x,y = pygame.mouse.get\_pos()

A postion is a tuple (a set of coordinates), so that’s why we put x and y together in this way.

Where do we put this line? We can put it anywhere, but it makes most sense to put it inside the if statement:

gameOn = True

while gameOn:

for event in pygame.event.get():

if event.type == QUIT:

sys.exit()

elif event.type == MOUSEBUTTONDOWN:

sound.play()

x,y = pygame.mouse.get\_pos() # get the position of mouse

screen.blit(pic, (x,y)) # move pic there

This assumes you still have an image object called pic. If you don’t, you’ll need one.

This code gets the position of the mouse (when you click on it) and places the picture there.

Notice that the picture is dragged by its top left corner. To make it more centered, we write:

screen.blit(pic, (x-50,y-50)) # move pic

This way, wherever we click, the picture will be moved a bit to the left and a bit up. You can adjust these coordinates as you like.

Exercise: Adapt your code for the mouse motion event.