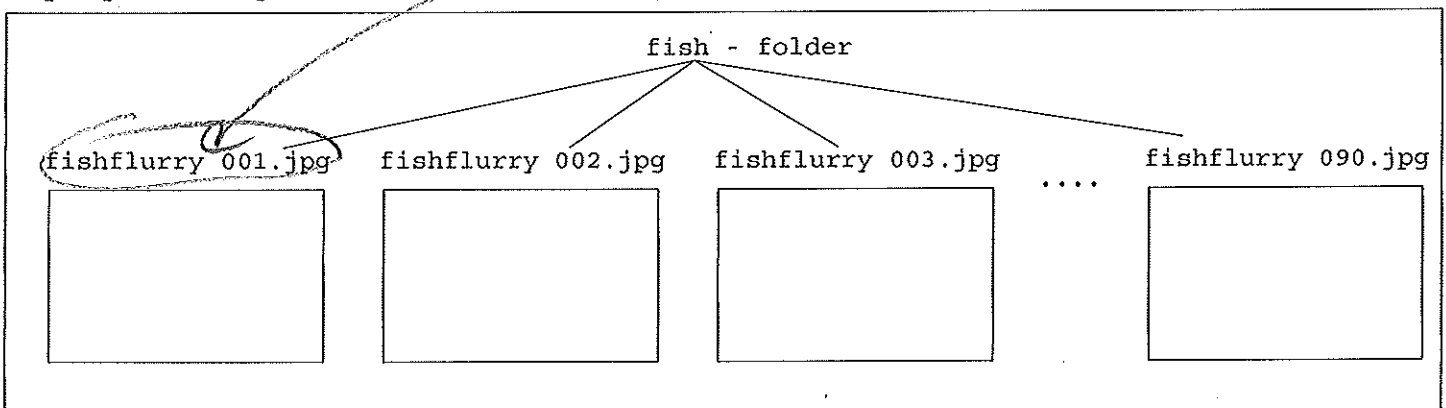1. Let's jump to chapter 13 Creating and Modifying Movies where you learn how to work with simple movies. The reality this involves little more than performing picture manipulations over and over again.

A movie/animation is little more than a sequence of images. If you view a series of images quickly enough your brain is unable to separate one image from the next and it processes the changes between the images as actual movement of the objects in those images. Some of you may have played with this concept as a child when you doodled on the edges of a notebook and created a simple flipbook animation such as:

<div align="center">www.youtube.com/watch?v=ud8dSDy5lB4</div>

JES has some built in tools that make it easy for us to make simple movies from a sequence of images. Today we'll walk through creating a movie from a set of existing images and then make a couple of very simple animations by writing computer programs to generate a series of images. The general steps:

1. `setMediaFolder()` to the directory containing the images (e.g., mediasources\fish\)
2. make an empty movie and add frames individual, or make a movie by specifying only the first picture:

   - ```
     myMovie = makeMovie()   # makes an empty movie
     nextFrame = pickAFile()
     addFrameToMovie(nextFrame, myMovie)
     nextFrame = pickAFile()
     addFrameToMovie(nextFrame, myMovie)
     . . .
     nextFrame = pickAFile()
     addFrameToMovie(nextFrame, myMovie)
     ```
   - `myMovie = makeMovie(firstPictureFileName)`   *From Initial Frame*

3. play the movie using:
   `playMovie(myMovie)`

```
                              fish - folder

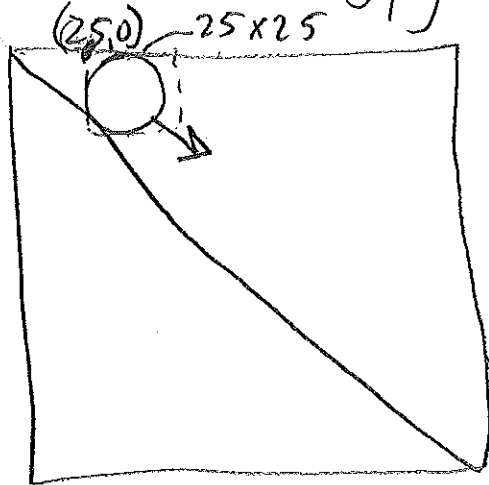 fishflurry 001.jpg   fishflurry 002.jpg   fishflurry 003.jpg  ....  fishflurry 090.jpg
```

a) How could we leverage what we already know to create flipbook animation?

We know how to create a picture and save it to a file. (e.g. ball 001.jpg). We could create a similar picture with slight movement a, save it to another file (e.g. ball 002.jpg)

"Recreated" white board

"400x400"
"ball 001.jpg"

(25,0) 25x25

ball 002.jpg
(26,1)
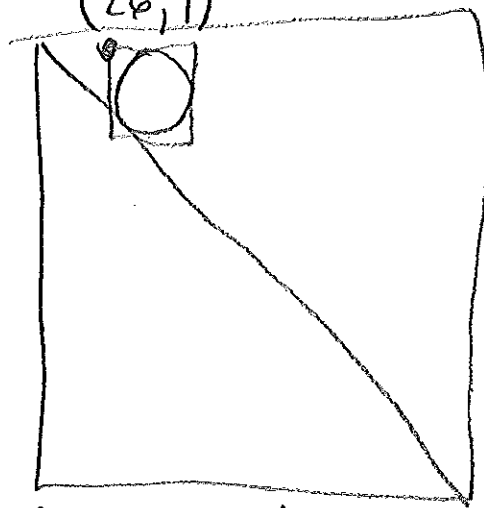
for X in range(25,375): ← see code

How do we want the ball to move?

X	Y
25	0
26	1
27	2
⋮	⋮

$$Y = 25 - X$$