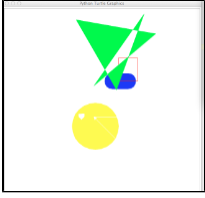
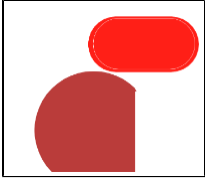


Project 2 A Shape Collection

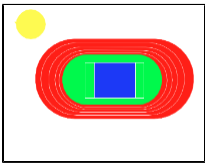
1. Required picture 1. This first picture is a random assortment of shapes that I created to eventually use for my more complex drawings.



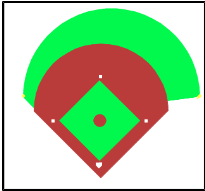
2. Required picture 2. In this next picture, I used the shapes that I created to build parts of objects that would eventually contribute to my final scenes. The red image was the basis of my track drawing and the brown figure ended up being the beginning of my baseball infield.



3. Required picture 3. This picture is a drawing of a track and football field on a sunny Maine day. It was inspired by the Colby track and Seaverns Field.



4. Required picture 4. My final picture is of the Colby baseball Field.



Writeup:

The task of the lab this week was to create a directory of simple shapes and then take these simple shapes and create more complex shapes and eventually full scenes. The scenes were Colby inspired.

In order to complete this tasks, I started by drawing simple shapes, such as a yellow circle for the sun, half circles for the turns in my track, etc. I defined the code for these shapes and made them in my shapes.py document. I then started to combine these simple shapes. In drawing3, I created a simple, oval like shape and offset them, changed colors, and size in order to make it appear like the Colby outdoor track.

```
#Main track shape
def track(x, y, size, color):
    goto(x, y)
    turtle.color(color)
    turtle.fill(True)
    turtle.forward(size)
    turtle.circle(size*5,180)
    turtle.forward(size)
    turtle.circle(size*5,180)
    turtle.fill(False)
```

The final main.py code was made up primarily of the simple shapes creates in the shapes.py document. By importing the shapes from the shapes.py document, my code looks more clean and more clear. Also by adding print statements in my main code, I was able to see exactly where I was making errors and it was easier to find these mistakes because my main code was easier to read.

For the extension part of the project, I used the fill command and the pen color command to add color to my drawings. I also added additional parameters to my project, For example I used (x, y, length, width, color, fill) for additional parameters when defining the shape that I used for the inner portion of my football field. I also used (x, y, length, width, color) when defining the outer part of my football field.

```
#Main track shape
def track(x, y, size, color):
    goto(x, y)
    turtle.color(color)
    turtle.fill(True)
    turtle.forward(size)
    turtle.circle(size*5,180)
    turtle.forward(size)
    turtle.circle(size*5,180)
    turtle.fill(False)
```

In this lab, I learned that you can create complex and detailed drawings by using simple shapes. More specifically, I learned how to add parameters, color, and define different functions while still keeping my main code relatively clean. I also learned how to use `turtle.setheading`, which was very helpful when trying to figure out coordinates and the orientation of the turtle.