In [1]:
```
#1. Playing around with modules
""" def turn_right():
    turn_left()
    turn_left()
    turn_left()
while not at_goal():
    if right_is_clear():
        turn_right()
        move()
    elif front_is_clear():
        move()
    else:
        turn_left() """
```

Out[1]:
```
'" def turn_right():\n    turn_left()\n    turn_left()\n    turn_left()\nwhile not
at_goal():\n    if right_is_clear():\n        turn_right()\n        move()\n    el
if front_is_clear():\n        move()\n    else:\n        turn_left() '
```

In [2]:
```
#2. drawing shapes using turtle

#importing turtle and creating object
import turtle
t = turtle.Turtle()

#Square
def draw_square(side,side_color):
    t.pendown()
    t.fillcolor(side_color)
    t.begin_fill()
    for i in range(0,4):
        t.forward(side)
        t.right(90)
    t.end_fill()
    t.penup()

draw_square(100,'yellow')

#changing co-ordinates
t.goto(-100,0)

#Triangle
def draw_triangle(side,side_color):
    t.pendown()
    t.fillcolor(side_color)
    t.begin_fill()
    for i in range(0,3):
        t.forward(side)
        t.right(120)
    t.end_fill()
    t.penup()

draw_triangle(100,'blue')

#changing co-ordinates
t.goto(125,0)

#circle
t.pendown()
t.fillcolor('red')
t.begin_fill()
t.circle(25)
t.end_fill()
t.penup()
```

```
turtle.done()
```

In [4]:
```
#3. Drawing a scenary using turtle
import turtle
t = turtle.Turtle()

#sky
t.penup()
t.goto(-400,400)
t.pendown()
t.fillcolor('sky blue')
t.begin_fill()

for i in range (0,2):
    t.forward(800)
    t.right(90)
    t.forward(600)
    t.right(90)
t.end_fill()
t.penup()

#sun
t.goto(0,150)
t.fillcolor('yellow')
t.begin_fill()
t.circle(50)
t.end_fill()
t.penup()

#grass
t.penup()
t.goto(-400,-100)
t.pendown()
t.fillcolor('green')
t.begin_fill()

for i in range (0,2):
    t.forward(800)
    t.right(90)
    t.forward(100)
    t.right(90)
t.end_fill()
t.penup()

turtle.done()
```

In [6]:
```
#4. making turtle interactive with keys
import turtle

def move_forward():
    turtle.forward(20)

def move_backward():
    turtle.backward(20)

def turn_left():
    turtle.left(20)

def turn_right():
    turtle.right(20)

def clear_screen():
```

```
    turtle.clear()

def draw_square():
    for _ in range(4):
        turtle.forward(50)
        turtle.right(90)

def draw_triangle():
    for _ in range(3):
        turtle.forward(50)
        turtle.right(120)

def draw_circle():
    turtle.circle(25)

# key bindings
turtle.listen()
turtle.onkey(move_forward, "Up")
turtle.onkey(move_backward, "Down")
turtle.onkey(turn_left, "Left")
turtle.onkey(turn_right, "Right")
turtle.onkey(clear_screen, "x")
turtle.onkey(draw_square, "s")
turtle.onkey(draw_triangle, "t")
turtle.onkey(draw_circle, "c")
turtle.mainloop()
```

In [ ]: