# tic-tac-toe.py based on Zelle text

from graphics import *

def gameboard():
    # Create a (default) 200*200 window
    w = GraphWin("Tic-Tac-Toe")

    # Set coordinates to go from (0,0) in the lower left
    # to (3,3) in the upper right.
    w.setCoords(0.0, 0.0, 3.0, 3.0)

    # Now work with these (more convenient) coordinates.

    # Draw vertical lines
    Line(Point(1, 0), Point(1, 3)).draw(w)
    Line(Point(2, 0), Point(2, 3)).draw(w)

    # Draw horizontal lines
    Line(Point(0, 1), Point(3, 1)).draw(w)
    Line(Point(0, 2), Point(3, 2)).draw(w)

    # Draw an 0 in the lower left
    Text(Point(.5, .5), "0").draw(w)
# futval_graph2.py

def main():
    # Introduction
    print("This program plots the growth of a 10-year investment.")

    # Get principal and interest rate
    principal = eval(input("Enter the initial principal: "))
    apr = eval(input("Enter the annualized interest rate: "))

    # Create a graphics window with labels on left edge
    win = GraphWin("Investment Growth Chart", 320, 240)
    win.setBackground("white")
    win.setCoords(-1.75, -200, 11.5, 10400)
    Text(Point(-1, 0), ' 0.0K').draw(win)
    Text(Point(-1, 2500), ' 2.5K').draw(win)
    Text(Point(-1, 5000), ' 5.0K').draw(win)
    Text(Point(-1, 7500), ' 7.5K').draw(win)
    Text(Point(-1, 10000), '10.0K').draw(win)

    # Draw bar for initial principal
    bar = Rectangle(Point(0, 0), Point(1, principal))
    bar.setFill("green")
    bar.setWidth(2)
    bar.draw(win)

    # Draw a bar for each subsequent year
    for year in range(1, 11):
        principal = principal * (1 + apr)
        bar = Rectangle(Point(year, 0), Point(year+1, principal))
        bar.setFill("green")
        bar.setWidth(2)
        bar.draw(win)

    input("Press <Enter> to quit.")
    win.close()
initial principal = 2000
\( \text{apr} = .1 \)