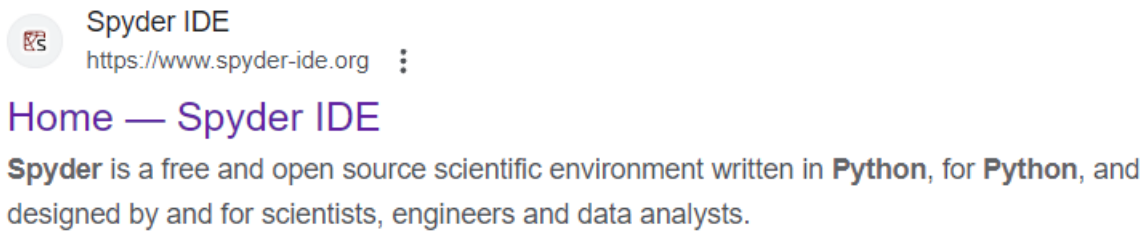
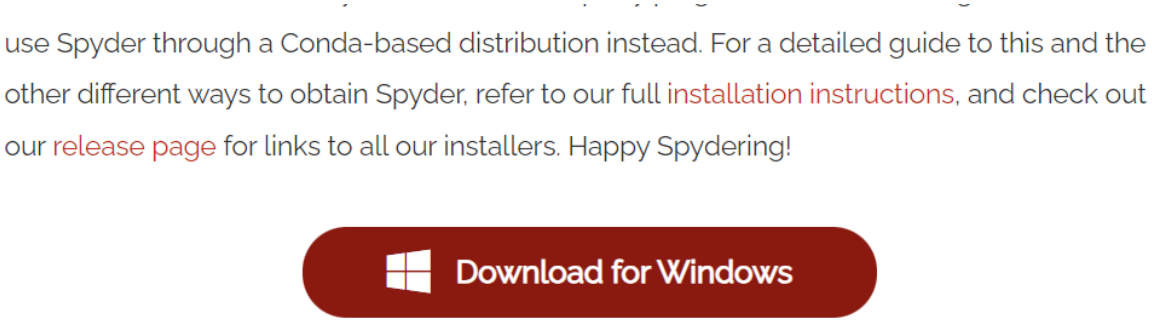
Interactive Session:
Installing Python and Getting Code for Branching Processes

Step 1:

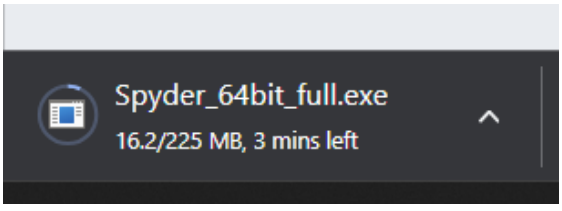
Google: “spyder python download”



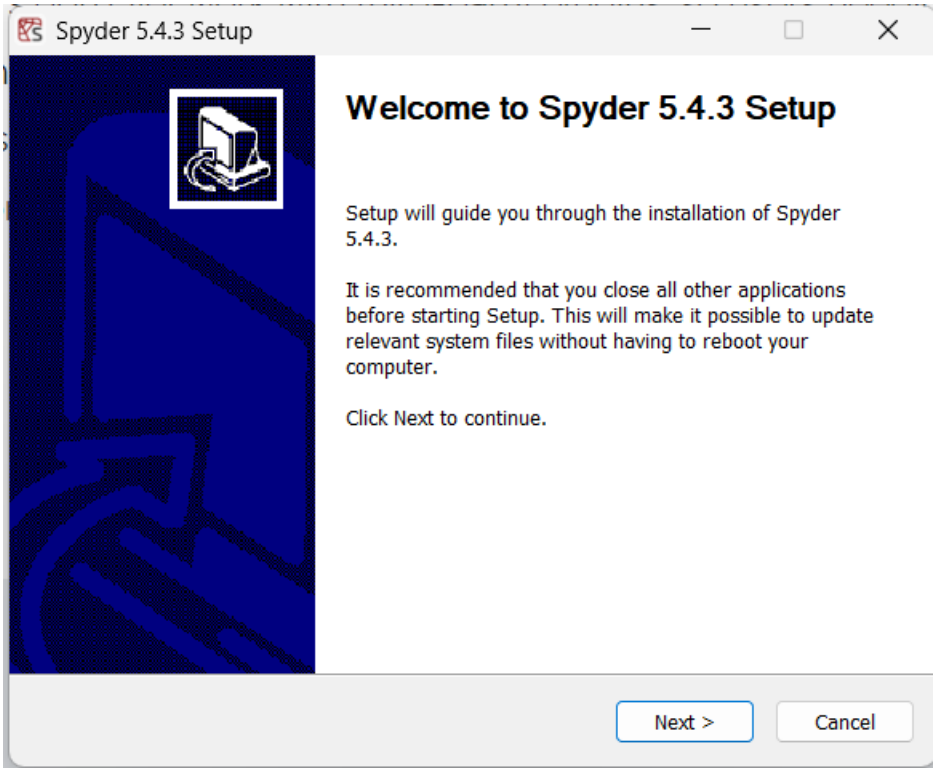
Step 2: Scroll down to this button:



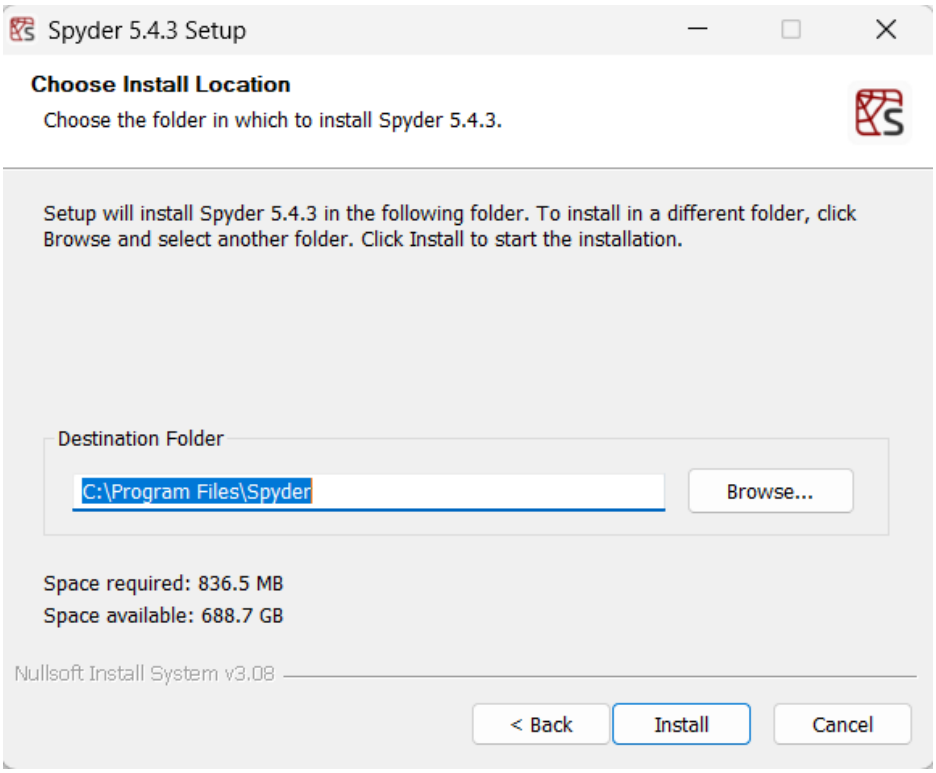
Step 3: Wait for it to download:



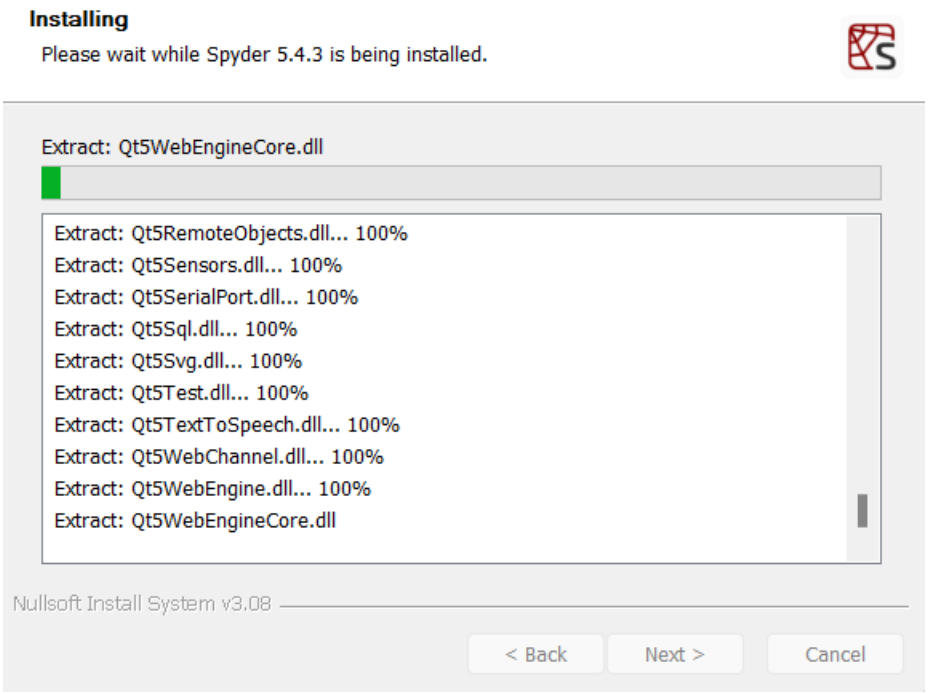
Step 4: Click on the downloaded file and click “Next”



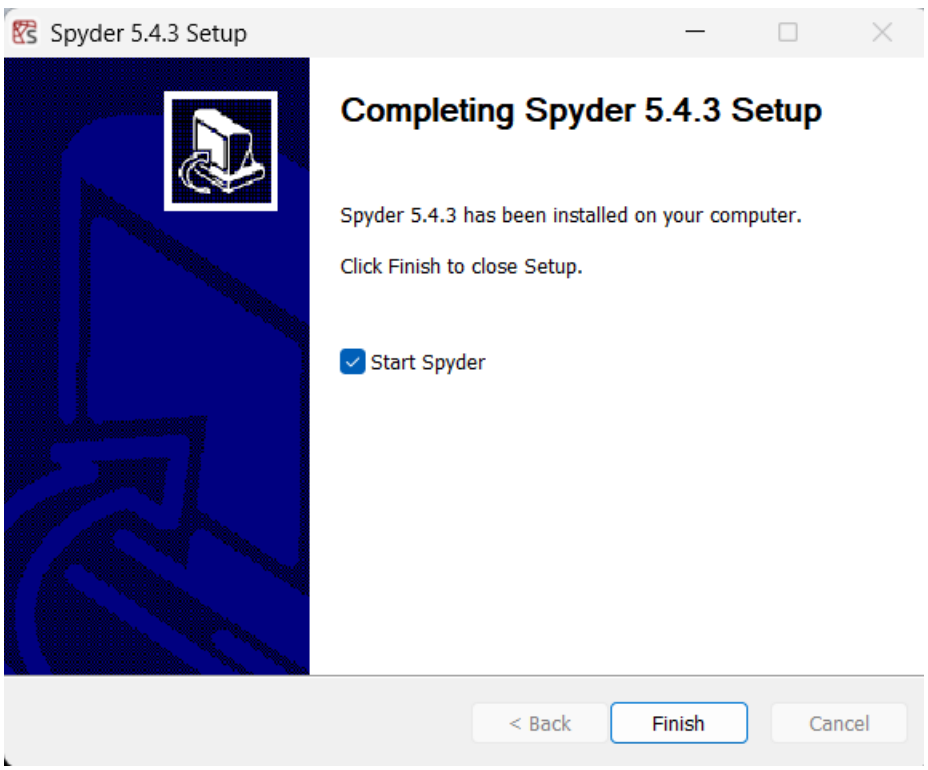
Step 5: Keep clicking next and then “Install”:



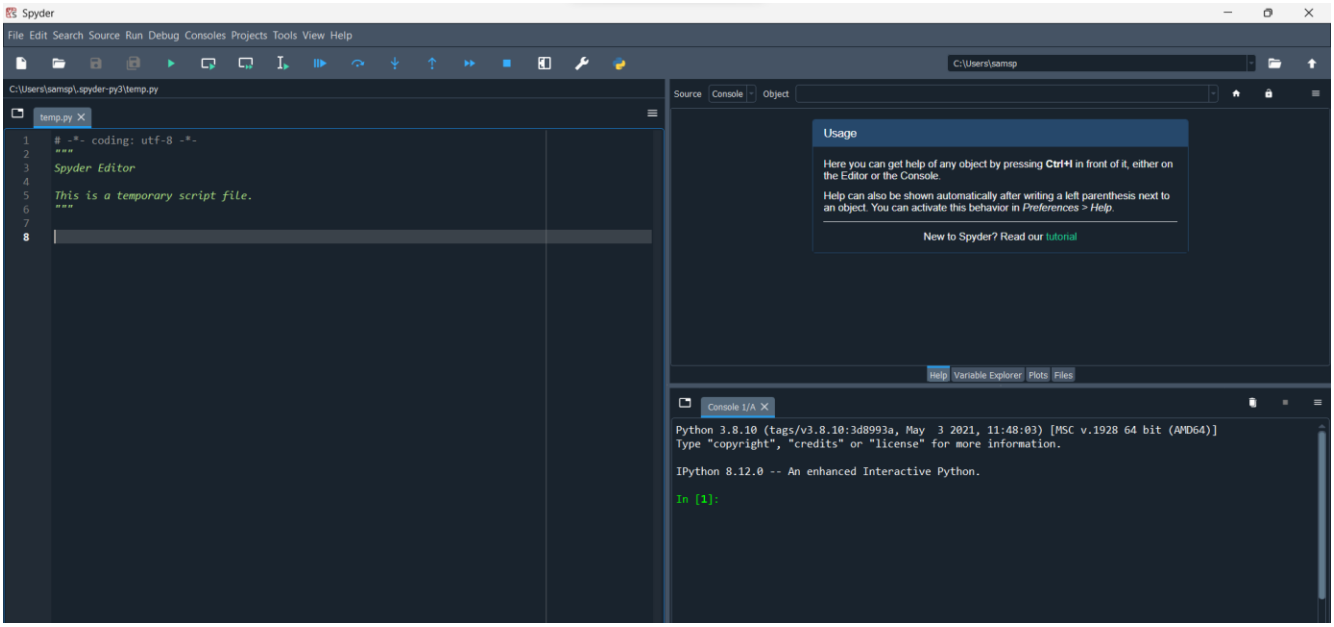
Wait to install (takes ~5 minutes):



Step 6: Click “Finish”



Spyder should load, looks like this:



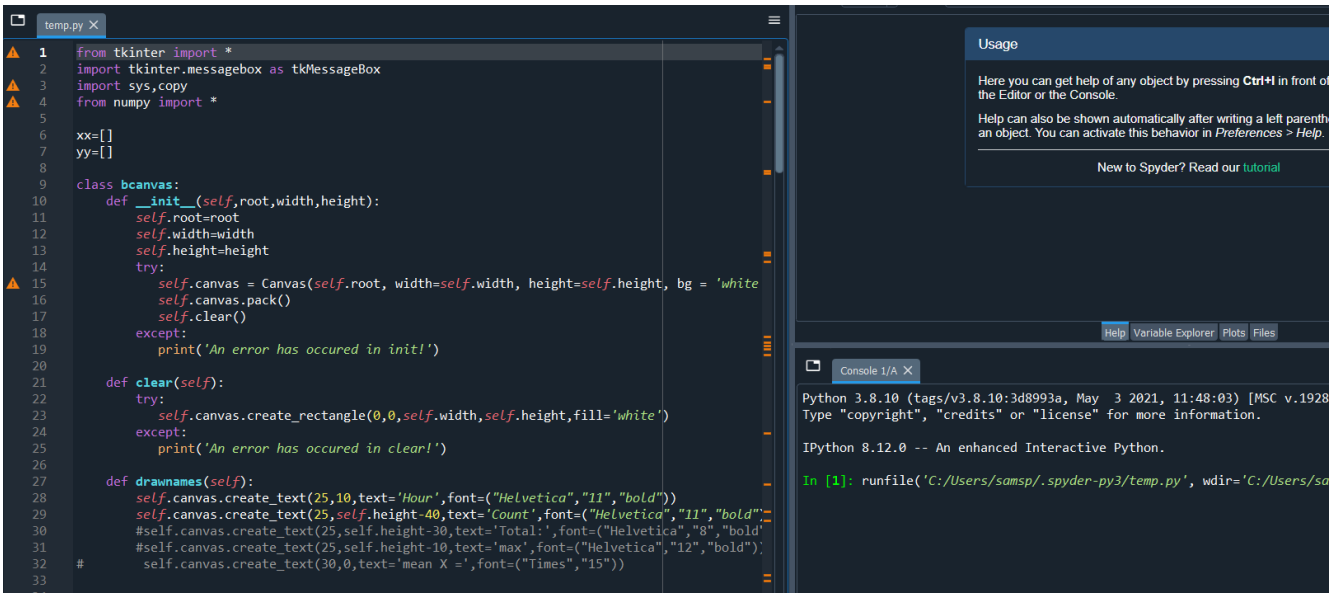
Get code for session from this link:

http://www1.maths.leeds.ac.uk/~grant/DiceJune.py

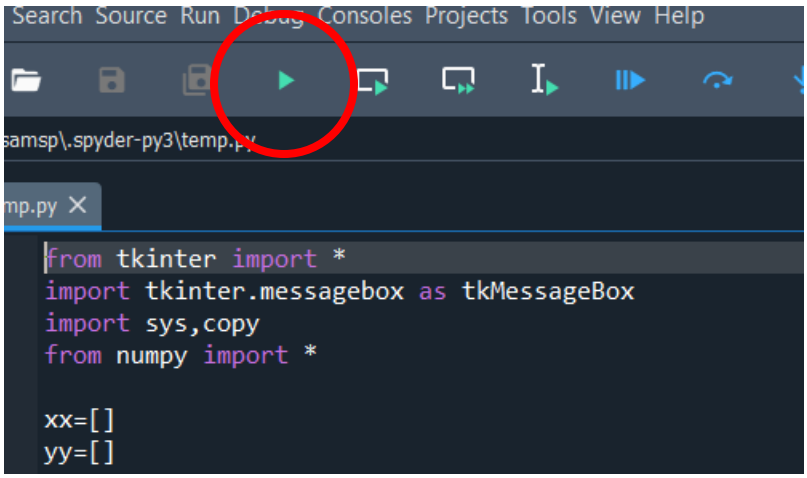
```
from tkinter import *
import tkinter.messagebox as tkMessageBox
import sys,copy
from numpy import *

xx=[]
yy=[]

class bcanvas:
    def __init__(self,root,width,height):
        self.root=root
        self.width=width
        self.height=height
        try:
            self.canvas = Canvas(self.root, width=self.width, height=self.height, bg = 'white')
            self.canvas.pack()
            self.clear()
        except:
            print('An error has occured in init!')

    def clear(self):
        try:
            self.canvas.create_rectangle(0,0,self.width,self.height,fill='white')
        except:
            print('An error has occured in clear!')

    def drawnames(self):
        self.canvas.create_text(25,10,text='Hour',font=("Helvetica","11","bold"))
        self.canvas.create_text(25,self.height-40,text='Count',font=("Helvetica","11","bold"))
        #self.canvas.create_text(25,self.height-30,text='Total:',font=("Helvetica","8","bold"))
        #self.canvas.create_text(25,self.height-10,text='max',font=("Helvetica","12","bold"))
#        self.canvas.create_text(30,0,text='mean X =',font=("Times","15"))


    def drawv(self,v,x,xx,gen,r):
        ''' draw the blue circles and connecting lines. write info'''
        n=len(v)
        N.append(sum(v))
        print(gen,sum(v),sum(N))
        dy=0.5*(self.height-60-2*r)//n
        ylist = []
        for i in range(n):
            y = 2*r + (i+0.5)*(self.height-60-2*r)//n
            ylist.append(y)
```

Step 7: Press Ctrl + A and Ctrl + C to copy the code

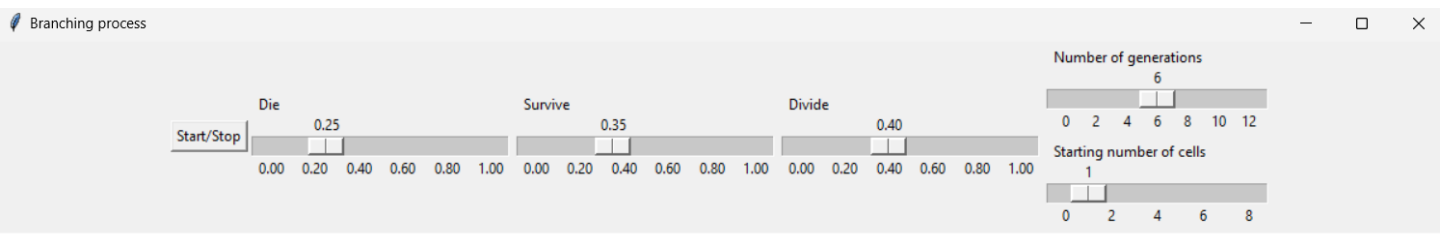
Step 8: Paste the code into Spyder using Ctrl + V :



Step 9: Click Run Button:



Step 10: Code will open program “Branching Processes”:



That’s it!