

ISSUES WITH THE JUPYTER NOTEBOOK ON WINDOWS

When running TheBlackDeath notebook on Chrome (MaxOSX), the program is fully interactive, and in Step 5, the user is able to change the slider value for both the Rats and the Parishes from their original values (0.8, and 1.3, respectively).

Step 5: Display the death rate map with changing, interactive parameters.

```
1: # Run
'''Step 5: Display the death rate map with interactive parameters.'''

'''The initial equation for calculating death rate:
deaths = (0.8 x rats) x (1.3 x parishes)'''

'''Step 5.1.1: Create the slider for the average rat population.'''
wR = widgets.FloatSlider(
    value=0.8, # Initial equation value
    min=0, # Minimum range is 0
    max=2.0, # Maximum range is 2.0
    step=0.1, # Increment is 0.1 decimal places
    description='Rats:',
    readout_format='.1f',
)
display(wR) # This displays the slider for the Rats value.

'''Step 5.1.2: Create the slider for the parish population.'''
wP = widgets.FloatSlider(
    value=1.3, # Initial equation value
    min=0, # Minimum range is 0
    max=2.0, # Maximum range is 2.0
    step=0.1, # Increment is 0.1 decimal places
    description='Parishes:',
    readout_format='.1f',
)
display(wP) # This displays the slider for the Parishes value.

#####
```



Figure 1: The original slider values.

Step 5: Display the death rate map with changing, interactive parameters.

```
: # Run
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'''Step 5.1.1: Create the slider for the average rat population.'''
wR = widgets.FloatSlider(
    value=0.8, # Initial equation value
    min=0, # Minimum range is 0
    max=2.0, # Maximum range is 2.0
    step=0.1, # Increment is 0.1 decimal places
    description='Rats:',
    readout_format='.1f',
)
display(wR) # This displays the slider for the Rats value.

'''Step 5.1.2: Create the slider for the parish population.'''
wP = widgets.FloatSlider(
    value=1.3, # Initial equation value
    min=0, # Minimum range is 0
    max=2.0, # Maximum range is 2.0
    step=0.1, # Increment is 0.1 decimal places
    description='Parishes:',
    readout_format='.1f',
)
display(wP) # This displays the slider for the Parishes value.

#####
```



Figure 2: User can alter the slider values (they have been altered to 1.4 and 0.6, respectively, as an example).

From here, the altered slider values influence the outcome of the final map in Step 6. The program has been tested so that the new slider values are printed on the screen, along with the new randomly generated value (to compare from Step 4, and the new average weekly death rate.

```
print('New value generated:', result[250][0])
# The above test checks the new value against the initial average death
# rate value of 15912.0 to prove the sliders have altered the map outcome.

# Shows the average weekly death rate for the altered parameters.
print('Average weekly death rate at these parameters =', round(d,2))

#####
```

```
User-generated slider values:
1.4 Rats
0.6 Parishes
New value generated: 12852.0
Average weekly death rate at these parameters = 8618.4
```

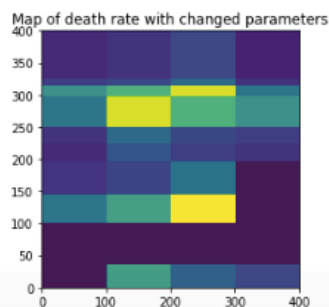


Figure 3: The new map of death rate with altered parameters. Note: the selected parameter values of 1.4 and 0.6 are printed to show the user that the sliders are interactive.

HOWEVER, when running in Windows/Internet Explorer, the ipywidget for FloatSliders does not appear, therefore making the interactive nature of this project redundant in this software.

Step 5: Display the death rate map with changing, interactive parameters. ¶

```
In [2]: # Run
'''Step 5: Display the death rate map with interactive parameters.'''

'''The initial equation for calculating death rate:
deaths = (0.8 x rats) x (1.3 x parishes)'''

'''Step 5.1.1: Create the slider for the average rat population.'''
wR = widgets.FloatSlider(
    value=0.8, # Initial equation value
    min=0, # Minimum range is 0
    max=2.0, # Maximum range is 2.0
    step=0.1, # Values at 0.1 decimal place increments
    description='Rats:',
    readout_format='.1f',
)
display(wR) # This displays the slider for the Rats value.

'''Step 5.1.2: Create the slider for the parish population.'''
wP = widgets.FloatSlider(
    value=1.3, # Initial equation value
    min=0, # Minimum range is 0
    max=2.0, # Maximum range is 2.0
    step=0.1, # Values at 0.1 decimal place increments
    description='Parishes:',
    readout_format='.1f',
)
display(wP) # This displays the slider for the Parishes value.

#####

FloatSlider(value=0.8, description='Rats:', max=2.0, readout_format='.1f')

FloatSlider(value=1.3, description='Parishes:', max=2.0, readout_format='.1f')
```

Figure 4: The sliders do not appear, simply the code for the values that they were initially set at.

If the user has access to a Mac/Google Chrome browser, I am confident that the project will work as intended.