Presentation #1

9/11/2020

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Objectives

- Download python and bokeh and implement a visualization
- Research ECG and heart rate

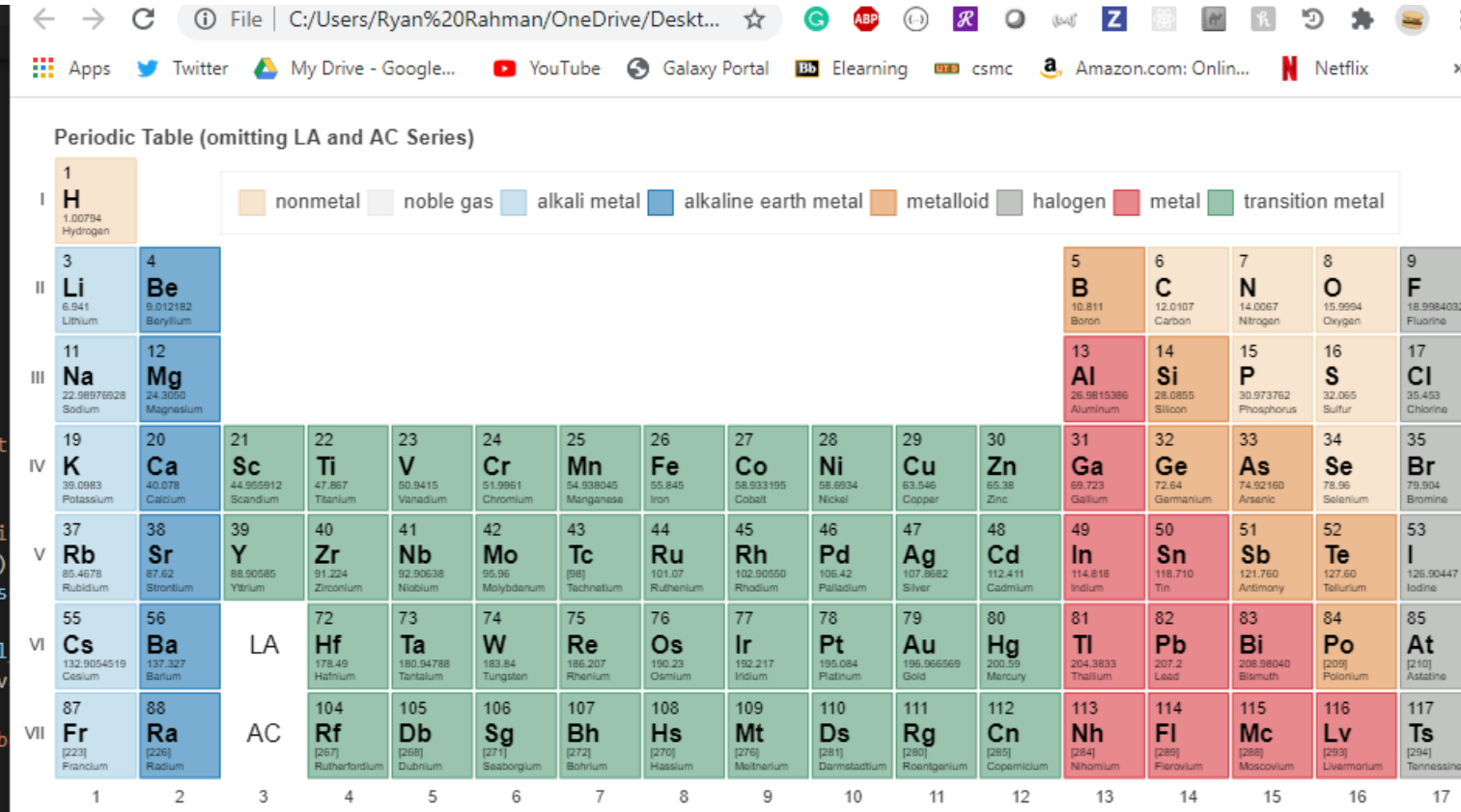
Outcomes

Bokeh Visualization

```
periodic.py > ...
24      "metalloid"          : "#e08d49",
25      "noble gas"          : "#eaeaea",
26      "nonmetal"           : "#f1d4Af",
27      "transition metal"   : "#599d7A",
28  }
29
30  TOOLTIPS = [
31      ("Name", "@name"),
32      ("Atomic number", "@{atomic number}"),
33      ("Atomic mass", "@{atomic mass}"),
34      ("Type", "@metal"),
35      ("CPK color", "$color[hex, swatch]:CPK"),
36      ("Electronic configuration", "@{electronic configurat
37  ]
38
39  p = figure(title="Periodic Table (omitting LA and AC Seri
40             x_range=groups, y_range=list(reversed(periods)
41             tools="hover", toolbar_location=None, tooltips
42
43  r = p.rect("group", "period", 0.95, 0.95, source=df, fill
44             color=factor_cmap('metal', palette=list(cmap.v
45
46  text_props = {"source": df, "text_align": "left", "text_b
47
48  x = dodge("group", -0.4, range=p.x_range)

PROBLEMS 4   OUTPUT   DEBUG CONSOLE   TERMINAL   1: powershell

More details about Python 2 support in pip can be found at https://pi
```



ECG and Heart Rate

- ECG stands for electrocardiogram and it records the electrical signal from your heart to detect problems and monitor health
- Used to detect
  - Arrythmias – irregular heart rhythm
  - Blocked arteries
  - Heart attacks
  - How treatments such as pacemakers are doing
- Heart rate is measured by beats per minute and an adult averages 60-100 bpm with having a lower bpm meaning a more efficient/healthier heart