Meeting 2

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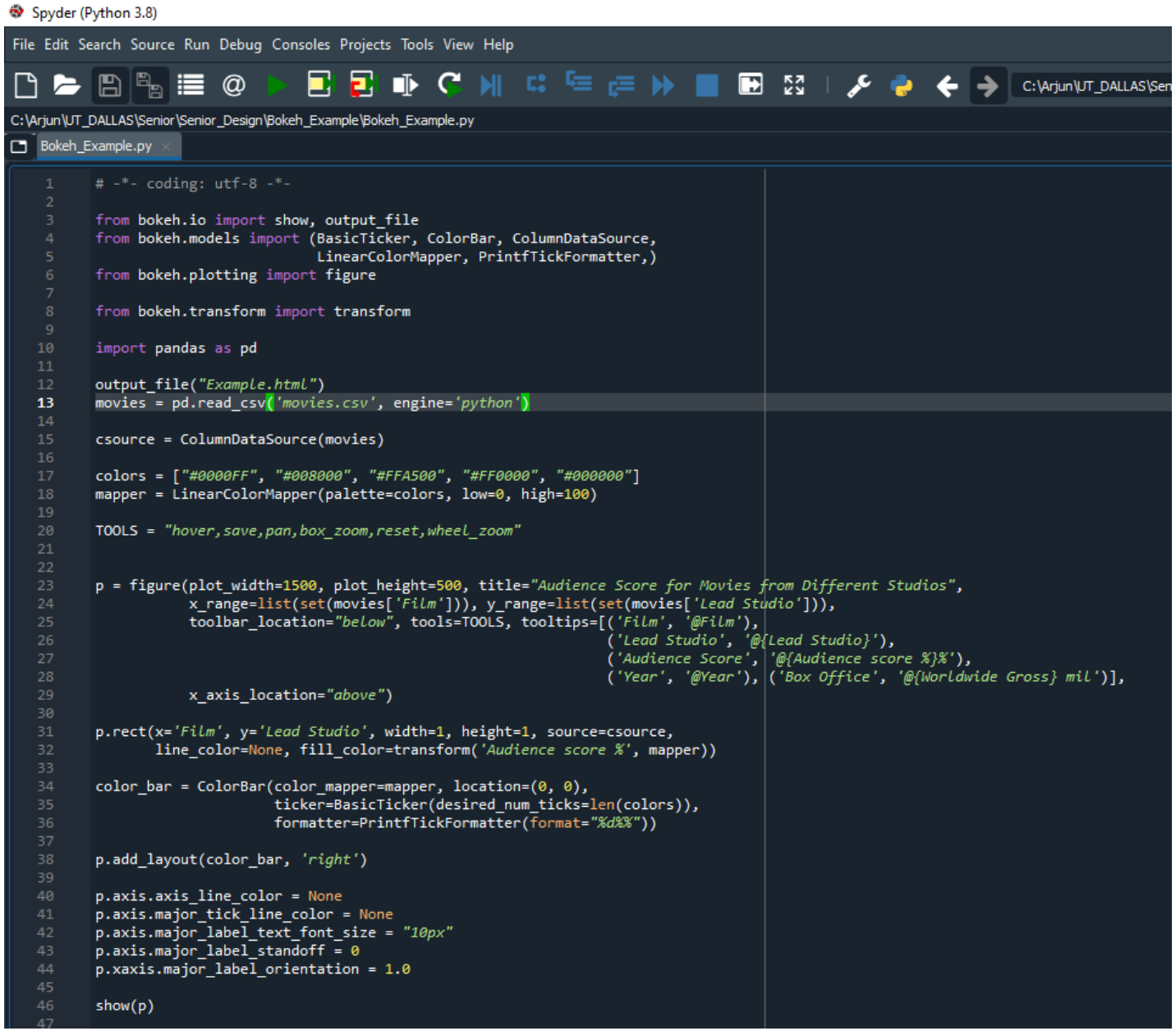
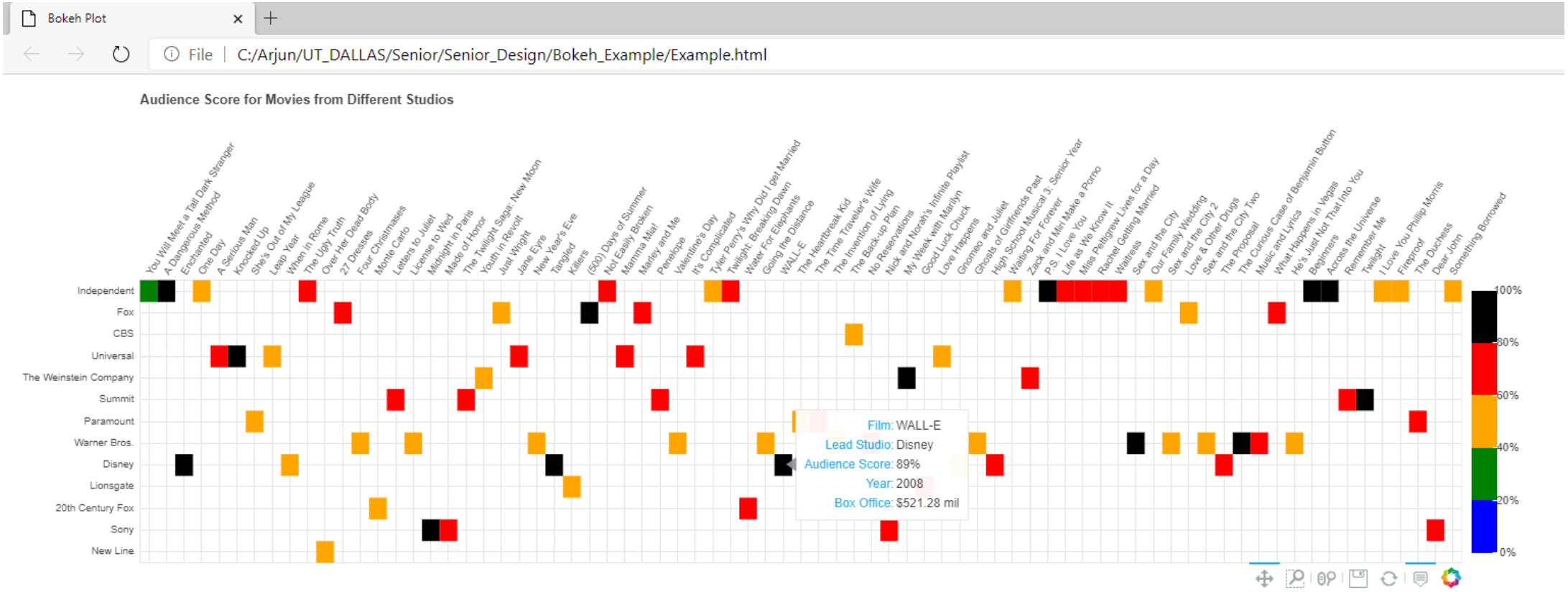
Objectives

- Install Python and Bokeh and implement a Bokeh visualization
- Research EEG

Outcomes


Spyder (Python 3.8)
File Edit Search Source Run Debug Consoles Projects Tools View Help
C:\Arjun\UT_DALLAS\Senior\Senior_Design\Bokeh_Example\Bokeh_Example.py
Bokeh_Example.py
# -*- coding: utf-8 -*-
from bokeh.io import show, output_file
from bokeh.models import (BasicTicker, ColorBar, ColumnDataSource,
LinearColorMapper, PrintfTickFormatter,)
from bokeh.plotting import figure
from bokeh.transform import transform
import pandas as pd
output_file("Example.html")
movies = pd.read_csv('movies.csv', engine='python')
csource = ColumnDataSource(movies)
colors = ["#0000FF", "#008000", "#FFA500", "#FF0000", "#000000"]
mapper = LinearColorMapper(palette=colors, low=0, high=100)
TOOLS = "hover,save,pan,box_zoom,reset,wheel_zoom"
p = figure(plot_width=1500, plot_height=500, title="Audience Score for Movies from Different Studios",
x_range=list(set(movies['Film'])), y_range=list(set(movies['Lead Studio'])),
toolbar_location="below", tools=TOOLS, tooltips=[('Film', '@Film'),
('Lead Studio', '@{Lead Studio}'),
('Audience Score', '@{Audience score %}%'),
('Year', '@Year'), ('Box Office', '@{Worldwide Gross} mil')],
x_axis_location="above")
p.rect(x='Film', y='Lead Studio', width=1, height=1, source=csource,
line_color=None, fill_color=transform('Audience score %', mapper))
color_bar = ColorBar(color_mapper=mapper, location=(0, 0),
ticker=BasicTicker(desired_num_ticks=len(colors)),
formatter=PrintfTickFormatter(format="%d%%"))
p.add_layout(color_bar, 'right')
p.axis.axis_line_color = None
p.axis.major_tick_line_color = None
p.axis.major_label_text_font_size = "10px"
p.axis.major_label_standoff = 0
p.xaxis.major_label_orientation = 1.0
show(p)

Outcomes


Bokeh Plot
File | C:/Arjun/UT_DALLAS/Senior/Senior_Design/Bokeh_Example/Example.html
Audience Score for Movies from Different Studios
You Will Meet a Tall Dark Stranger
A Dangerous Method
Enchanted
One Day
A Serious Man
Knocked Up
She's Out of My League
Leap Year
When in Rome
The Ugly Truth
Over Her Dead Body
27 Dresses
Four Christmases
Monte Carlo
Letters to Juliet
License to Wed
Midnight in Paris
Made of Honor
The Twilight Saga: New Moon
Youth in Revolt
Just Wright
Jane Eyre
New Year's Eve
Tangled
Killers
(500) Days of Summer
Not Easily Broken
Mamma Mia!
Marley and Me
Penelope
Valentine's Day
It's Complicated
Tyler Perry's Why Did I get Married
Twilight: Breaking Dawn
Water For Elephants
Going the Distance
WALL-E
The Heartbreak Kid
The Time Traveler's Wife
The Invention of Lying
The Back-up Plan
No Reservations
Nick and Norah's Infinite Playlist
My Week with Marilyn
Good Luck Chuck
Love Happens
Gnomeo and Juliet
Ghosts of Girlfriends Past
High School Musical 3: Senior Year
Waiting For Forever
Zack and Miri Make a Porno
P.S. I Love You
Life as We Know It
Miss Pettigrew Lives for a Day
Rachel Getting Married
Waitress
Sex and the City
Our Family Wedding
Sex and the City 2
Love & Other Drugs
Sex and the City Two
The Proposal
The Curious Case of Benjamin Button
Music and Lyrics
What Happens in Vegas
He's Just Not That Into You
Beginners
Across the Universe
Remember Me
Twilight
I Love You Phillip Morris
Fireproof
The Duchess
Dear John
Something Borrowed
Independent
Fox
CBS
Universal
The Weinstein Company
Summit
Paramount
Warner Bros.
Disney
Lionsgate
20th Century Fox
Sony
New Line
Film: WALL-E
Lead Studio: Disney
Audience Score: 89%
Year: 2008
Box Office: $521.28 mil
100%
80%
60%
40%
20%
0%

EEG

- Electroencephalogram
- Evaluates electrical activity in the brain
- Tracks and records brain wave patterns using electrodes
- Can detect certain brain disorders such as seizures, brain tumors, or head injury