**Exercise: Bokeh Plots**

**Specification**

**Description**: This program will create four plots from data in a matrix (list of lists or pandas).

**Input**: is the file SSE\_Faculty.csv, containing the courses taught by the faculty of the School of Systems and Enterprises from Spring '19 to Spring '23 (modified version of the actual data).

Per each Academic Year, there is "Load" (number of classes taught by the faculty); "Target" (number of classes the faculty was assigned to teach); "Balance" (Load - Target).

**Output**: Some statistical values and four html files with one plot each.

See details in the Procedure.

**Procedure**:

1. Open and read **SSE\_Faculty.csv** into either a list of lists or pandas.
2. Calculate and print the following:
   * Number of courses per each program per each Academic Year. This will be calculated using the "Load")
   * Average number of courses per faculty per Academic Year (from the "Load"). This per faculty, not per program
   * Number of underloaded faculty per each Academic Year (Load that is less than the Target). This per faculty, not per program
   * Number of overloaded faculty per each Academic Year (Load that is more than the Target). This per faculty, not per program
3. Using Bokeh, create the following 4 plots:
   * Courses per program per Academic Year

* Line Plot
* Add a legend with the names of the programs
  + Average number of courses per faculty over the years. This is from the Load. Each faculty will have 1 value (the average of courses taught in the years)
* Bar Plot
* Label the y-axis with the number of courses
  + Number of underloaded faculty over the years. Each year will have 1 value, that is the number of underloaded faculty
* Line Plot
* Label the x-axis with the years
* Label the y-axis is a number
  + Courses by program in '22-'23. Courses will be calculated using the "Load"
* Pie chart
* Label the wedges (names = 'EM', 'SSW', 'SYS')

Write a 1 page report incorporating the visualizations, highlighting the key facts those visualizations will show.

Submit the .py script and the word/pdf report.