# Project Requirements

## Language requirements

* Java
  + Default package (no package instruction used)
  + AWT
  + Swing
  + JFreeChart (only external library allowed)

## Testing

* JUnit for testing

## User Interface

* GUI with a menu bar (JMenu)
  + File and About
* About
  + Opens a dialog box with team information
* File
  + Load a Roster
    - Ask user for file path (use JFileChooser)
    - File will be a CSV
      * No header, 6 fields per row
    - Read file and load into a data structure
  + Add Attendance
    - Ask user for File path (JFileChooser)
    - File is another CSV
    - Ask user for a date using a date picker
    - Read file and load into data structure
    - Remember the selected date
  + Save
    - Save all data in the JTable into a CSV
    - Also save file headers
  + Plot Data
    - Create a chart using attendance data per student
    - Scatter plot
    - Y-axis is how many students (0 to total rows in table)
    - X-axis is % of attendance
    - Each attendance column represents a population
    - Use JFreeChart Library
    - Use Dialog box or tab
* Attendance File
  + No headers
  + 2 fields per row
  + ASURITE
  + Integer number representing how many minutes you were connected in a meeting
  + Same user can appear twice, merge users together and add times together
* Main area
  + Visualize data using JTable
    - Load JTable in a JScrollPane
    - Has Horizontal and Vertical Scrollbars
* Roster + Attendance
  + Using asurite field as a refrence, mix the roster data and attendance data
  + Visualize the attendance data by adding a column to the JTable
  + Header for that collum is the date provided by the user
  + Any attendee that is not in the roster is ignored but report it to the user (JDialog)
  + N attendance fields may be added, each date adds a new column

## Architecture + Design

Diagram

Description automatically generated