1. Input data
2. Create a new Row
3. Select a cell
4. Edit the data
5. Select rows
6. Delete selected rows
7. Load data set
8. Save data set
9. Draw Cartesian plot
   1. Draw trend line
10. Switch chart (ask professor)
11. Toggle background lines
12. Toggle axis value
13. Return to input

# Use Case: Input data

* Participating Actor: Initiated by Participant
* Entry Condition
  + New rows are available
* Exit Criteria
  + Participant has input one set of data
* Flow of Events
  + Participant input data
  + System receives the new input data and presents the input data to participant

# Use Case: Create a new row

* Participating Actor: Initiated by Participant
* Entry Condition
  + Data sets do not exceed the data limit
* Exit Criteria
  + A new row has been created and presented to the participant
* Flow of Events
  + Participant select to create a new row
  + System create a new row and present the new row to the participant

# Use Case: Select a cell

* Participating Actor: Initiated by Participant
* Entry Condition
  + There exits at least one row
* Exit Criteria
  + A cell has been selected
* Flow of Events
  + Participant selects the cell
  + System presents that the cell is successfully selected.

# Use Case: Edit the data

* Participating Actor: Initiated by Participant
* Entry Condition
  + A cell is selected
* Exit Criteria
  + The data inside the cell has been edited.
* Flow of Events
  + Participant inputs value into the selected cell
  + System accepts the value and presents the value.

# Use Case: Select rows

* Participating Actor: Initiated by Participant
* Entry Condition
  + There exist at least one row
* Exit Criteria
  + Participant has selected the rows
* Flow of Events
  + Participant selects the rows
  + System present the selected rows to the participant

# Use Cases: Delete selected rows

* Participating Actor: Initiated by Participant
* Entry Condition
  + Participant has selected at least one row
* Exit Criteria
  + Selected rows have been deleted
* Flow of Events
  + Participant selects to delete the rows
  + System delete the selected rows and update the datasets to the participant

# Use Cases: Load data set

* Participating Actor: Initiated by Participant
* Entry Condition
  + None
* Exit Criteria
  + Selected dataset is successfully loaded
* Flow of Events
  + Participant selects the dataset file
  + System loads the file into the data set and presents the loaded data sets to the participant

# Use Cases: Save data set

* Participating Actor: Initiated by Participant
* Entry Condition
  + The dataset presented is not empty
* Exit Criteria
  + The dataset is saved to a file
* Flow of Events
  + Participant selects the file in which the dataset will be saved
  + System accesses the file and save the dataset

# Use Cases: Draw

* Participating Actor: Initiated by Participant
* Entry Condition
  + Data set presented is not empty
* Exit Criteria
  + The finished graph has been presented
* Flow of Events
  + Participant requires the system to draw the selected type of graph.
  + System properly draws the graph and presents the graph.

# Use Cases: Draw trend line

* Participating Actor: Initiated by Participant
* Entry Condition
  + The Cartesian plot has been drawn and presented
* Exit Criteria
  + The trend line has been drawn and presented along with the equation of the line.
* Flow of Events
  + Participant requires the system to draw the trend line for the Cartesian plot.
  + System calculates the equation of the trend line using Simple Linear Regression, draw the line according to the equation, and presents the line with the equation.

# Use Case: Switch chart

* Participating Actor: Initiated by Participant
* Entry Condition
  + There exists a drawn graph.
* Exit Criteria
  + The other graph is presented.
* Flow of Events
  + Participant selects to switch the graph
  + System properly draws the other graph and presents the graph.

# Use Case: Toggle background lines

* Participating Actor: Initiated by Participant
* Entry Condition
  + There exists a drawn graph.
* Exit Criteria
  + The visibility of background lines is changed
* Flow of Events
  + Participant selects to toggle the background lines
  + System properly changes the visibility of the background lines

# Use Case: Toggle axis value

* Participating Actor: Initiated by Participant
* Entry Condition
  + There exists a drawn graph.
* Exit Criteria
  + The visibility of axis values lines is changed
* Flow of Events
  + Participant selects to toggle the axis values
  + System properly changes the visibility of the axis values

# Use Case: Return to input

* Participating Actor: Initiated by Participant
* Entry Condition
  + A drawn graph is now presented
* Exit Criteria
  + The input interface is now presented
* Flow of Events
  + Participant selects to return back to input interface
  + System showed the input interface to the participant