Sprint 1

Sprint 1 Goal

The sprint 1 will majorly develop useful characteristics for both Prim's and transitive closure algorithms.

General:

- shows the graph once the home page is opened
- makes graphs and arrays more detailed and readable

Prim's:

- uses two pointers to indicate the initial and changed node
- has Cost and Prev arrays to store shortest distance
- shows vertical indices of matrix like the horizontal ones
- displays the animation of updating nodes and edges

Transitive closure

- changes the default size of graph to be optimal
- any insertions or changes on the tree do not zoom or distort it
- resize the heap to make the screen allocation more suitable
- sets the distance to infinity instead of 0 when disconnection
- One direction arrows should replace the current double-head ones

User Stories Planned

general

ID	User	Story	Story Point Estimate
01	Students	We want to see the visualization of the graph at the entry of the AIA home page. (Remove the 'Build Graph' button)	4
03	Students	We want to visualize the code in detail. Animations are supposed to show pointers, or in some cases in other ways.	15
04	Students	We want the animation and pseudocode to be synchronized.	10
08	Students	We expect that some messages and interactive processes can be more reasonable and self-explanatory.	4

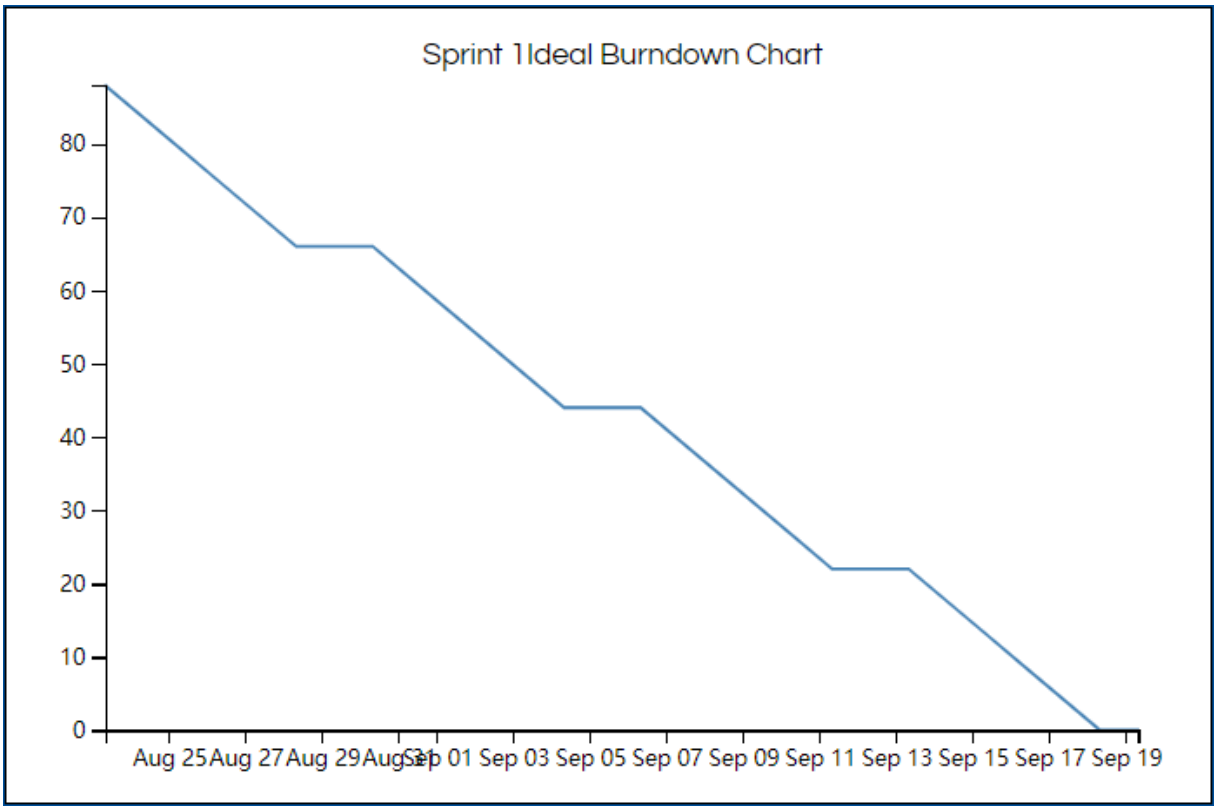
Prim's

ID	User	Story	Story Point Estimate
14	Students	We want to see how priority queue manipulate (init, change)	15
15	Students	We want to see the cost array, the prev array.	20
16	Students	We want to see the priority queue list element in pair (node and priority)	8
26	Students	We want to see which edge and node are updating in each steps.	10
27	Students	We want to fix the length of priority queue and prev array.	4

Transitive Closure

ID	User	Story	Story Point Estimate
18	Students	We want to see 2 different direct edges between 2 nodes separately, not an edge with 2 arrows.	8
19	Students	We want to see the matrix distance between 2 not-connected nodes as infinity, not 0.	4
20	Students	We want to see the matrix with node index both horizontally and vertically.	4
21	Students	We want to have at least one possible expansion/collapse button to view code at different levels. (The visualization has to be adapted to that variation at the same time)	8
24	Students	We want to see cells in the transitive closure highlighted with different colours and move along columns and rows.	15

Sprint Burndown Chart


Sprint 1Ideal Burndown Chart
80
70
60
50
40
30
20
10
0
Aug 25
Aug 27
Aug 29
Aug 31
Sep 01
Sep 03
Sep 05
Sep 07
Sep 09
Sep 11
Sep 13
Sep 15
Sep 17
Sep 19