**Sprint backlog**

# Sprint Planning

Estimate initial velocity : 42

### Selected User Stories:

[21. Cut Operation](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.4i7ojhp) 3

### [24. Undo Operation](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.3whwml4) 7

[25. To the front operation](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.2bn6wsx) 3

[26. To the back operation](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.qsh70q) 3

[28. Zoom of the drawing window 3](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.1pxezwc)

[29. Scrollable drawing surface](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.49x2ik5) 1

[30. Show or hide grid 3](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.2p2csry)

[31. Size of the grid](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.147n2zr) 3

[32. Insert arbitrary polygon 1](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.3o7alnk)

[33. Insert text string](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.23ckvvd) 1

[34. Size of the characters](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.ihv636) 3

[35. Rotate a shape](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.32hioqz) 3

[36. Mirror a shape](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.1hmsyys) 3

[37. Stretch a shape](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.41mghml) 3

[47. Grid](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.2p2csry) 1

[48. Paste menu](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.5y56ahkeesw8) 1

# Development

### Tasks that has been assigned to team’s member:

|  | Vincenzo Campagnano | Marta Corcione | Francesco D’Onofrio | Paolo Franco |
| --- | --- | --- | --- | --- |
| Assigned and completed tasks | 21 - Develop CutAction class  21 - Update the GUI adding the Cut menu item in the Context Menu of the table view  30 - Update the GUI to show an option menu containing a grid button  30 - Develop onAction method for the grid button  31 - Develop onAction methods for grid resizing  31 - Update the GUI with controls to manage grid size  36 - Update the contextual menu of the inserted shapes table with a mirror horizontally item  36 - Develop the onAction method associated the the mirror item  36 - Develop MirrorAction class  36 - Update the contextual menu of the inserted shapes table with a mirror vertically item  47 - Update the GUI with a grid pane on the drawing pane  48 - Develop in WindowController a bind between the disable property of the menu item paste and the content of the clipboard  48 - Update the GUI | 24 - Develop undo method of ChangeContourColorAction class  25 - Update the GUI adding the To Front menu item in the Context Menu of the table view  25 - Develop ToFrontAction class  25 - Develop toFrontAction method of WindowController class  26 - Update the GUI adding the To Back menu item in the Context Menu of the table view  26 - Develop ToBackAction class  26 - Develop toBackAction method of WindowController class  33 - Update the GUI in order to show one more button on the left side for add a Text  33 - Develop onAction method associated with the text shape button  33 - Develop TextShape class  34 - Update the MenuButton size of Text in order to be enabled when a Text shape is selected  34 - Update the MenuButton size of Text in order to be disabled when a Text shape isn't selected  34 - Develop setFontSize method for TextShape class  34 - Update the GUI in order to show a MenuButton for selecting the size of Text near the Button for insert the text shape | 24 - Develop undo method of CutAction class  24 - Develop undo method of DrawAction class  24 - Develop undo method of ResizeAction class  28 - Update GUI to show zoom buttons  28 - Develop onAction methods of zoom buttons  29 - Update the GUI with a scroll pane  35 - Develop the onAction method associated the the rotate item  35 - Develop RotateAction class  35 - Update the contextual menu of the inserted shapes table with a rotate item  37 - Develop StretchAction class  37 - Develop the onAction method associated the the stretch item  37 - Update the contextual menu of the inserted shapes table with a stretch item  B3 - Update the default internal color of OpenContourShape  B4 - Develop an on mouse released method for the buttons of creation of a shape in which clear the list of selected shapes.  B5 - Update the saveWindow in order to deselect the shape before perform a save  B7 - Update the RectangleShape class  D5 - Modify the name of the FileIO class in ShapeIO class and develop the methods for save and load the shapes though a bytes stream.  D5 - Update the Clipboard class | 24 - Develop undo method of ChangeInternalColorAction class  24 - Develop undo method of Invoker class  24 - Develop undo method of PasteAction class  24 - Develop undo method of MoveAction class |
| Completed but not accepted tasks |  |  |  | 32 - Update the GUI in order to show one more button on the left side for add a Polygon  32 - Develop onAction method associated with the polygon shape button  32 - Develop PolygonShape class |
| Assigned but not completed tasks |  |  |  |  |
| Not assigned tasks |  | | | |

### User stories added by the Product Owner in this Sprint:

# Sprint Review

**Story point completed :** 42

### Completed user stories at the end of the fourth Sprint:

[21. Cut Operation](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.4i7ojhp)

### [24. Undo Operation](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.3whwml4)

[25. To the front operation](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.2bn6wsx)

[26. To the back operation](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.qsh70q)

[28. Zoom of the drawing window](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.1pxezwc)

[29. Scrollable drawing surface](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.49x2ik5)

[30. Show or hide grid](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.2p2csry)

[31. Size of the grid](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.147n2zr)

[33. Insert text string](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.23ckvvd)

[34. Size of the characters](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.ihv636)

[35. Rotate a shape](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.32hioqz)

[36. Mirror a shape](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.1hmsyys)

[37. Stretch a shape](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.41mghml)

[47. Grid](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.2p2csry)

[48. Paste menu](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.5y56ahkeesw8)

**Uncompleted user stories at the end of the fourth Sprint:**

* **-**

**User stories refused by the Product Owner:**

[32. Insert arbitrary polygon](https://docs.google.com/document/d/13bM1OhyFiVBdkJY-Tx-fIQsGaU55rzri/edit#heading=h.3o7alnk)

* The polygon shape had a few problems interacting with the other functions, of which the worst one was that it would not be saved or copied correctly.

**Solved Technical Debts:**

* D5 - Fix the technical debt related to the management of the input/output of the shapes

**Solved bugs:**

* [B3 - Void color](https://docs.google.com/document/d/1iXihezI4xtZz8B5F7Un1lDz9PH83AQ12/edit#heading=h.ox27slimsot)
* [B4 - Focus over insertion](https://docs.google.com/document/d/1iXihezI4xtZz8B5F7Un1lDz9PH83AQ12/edit#heading=h.pszvpqd4nd0s)
* [B5 - Focus saved on file](https://docs.google.com/document/d/1iXihezI4xtZz8B5F7Un1lDz9PH83AQ12/edit#heading=h.tgb2sdfqe9fr)
* B7 - Stretch after copying a rectangle

**Technical Debts found in the fourth Sprint:**

* D5 - Fix the technical debt related to the managing of the input/output of the shapes
  + The class FileIO required as parameter of the constructor an ObservableList<ShapeInterface>, which isn’t useful for the meaning of the class and led the instances of this one to be associated with a specific list of shapes.

**Bugs found in the fourth Sprint:**

* B6 - Undo after Load.
  + Given that the user has performed some action and then he loads an already existing file, then the list of actions associated with the invoker isn’t cleared.
* B7 - Stretch after copying a rectangle
  + After performing a copy/cut and then paste operation, then the user isn’t able to perform a stretch operation on the pasted rectangle.

# Sprint Retrospective

The decisions made in the fourth Sprint retrospective are:

Stop:

* -

Less of :

* Write code following a pattern that is far different from the ones already used in the project for similar features.

Keep doing:

* Keep comunicating with the other member of the team, asking suggestion and toughts about the implementation of the tasks.
* Fetch and commit often on github.

More of:

* Be careful when resolving conflicts between github versions.
* Be more precise when reviewing some code.

Start:

* -