

Project 5 Product Backlog

Sprint table:

- P stands for priority. User stories are ordered by priority.
- E stands for estimation. We have used the Fibonacci series as a measure.

[illegible]

[illegible]

[illegible]

[illegible]

Sprint Review:

Attended by:

- Amudhan Manisekaran
- Anusha Singh
- Kartik Mathpal
- Sandya Manoharan
- Sayali Tanawade

What was done in this sprint:

- Ability to change the workspace i.e. maximise, minimise and resize for better viewing.
- Added shapes and functionality to display them on top and left hand side and create those shapes in the workspace.
- File Menu and Project Menu created to open new workspaces and to compile and translate.
- Added # pound shape to top and left panel with double click input function.
- Enabled the functionality to name a new tab and work with different tabs.
- Functionality to delete or change links between shapes was implemented.
- Implemented translate shapes to code to enable creation of general structural graphs.

What was not done in this sprint:

- The drag and drop functionality was not implemented.

What went well during the Sprint:

- User Stories were completed with meticulous planning and well structured work division among the teammates.
- Everyone was able to work on the work given to them and communicate well.

Obstacles faced during this sprint:

- Knowledge transfer was a little difficult.
- Drag and Drop functionality posed a problem.

How did we resolve these obstacles:

- Learned about translating shapes and took time to understand how to achieve our objective.

Discussion of Product Backlog:

- Since almost all the User Stories were completed, this sprint was deemed a success.

Sprint Retrospective

Attended by:

- Amudhan Manisekaran
- Anusha Singh
- Kartik Mathpal
- Sandya Manoharan
- Sayali Tanawade

What went well:

- Most of the requirement goals outlined were manageable and achieved.
- The team worked well together.

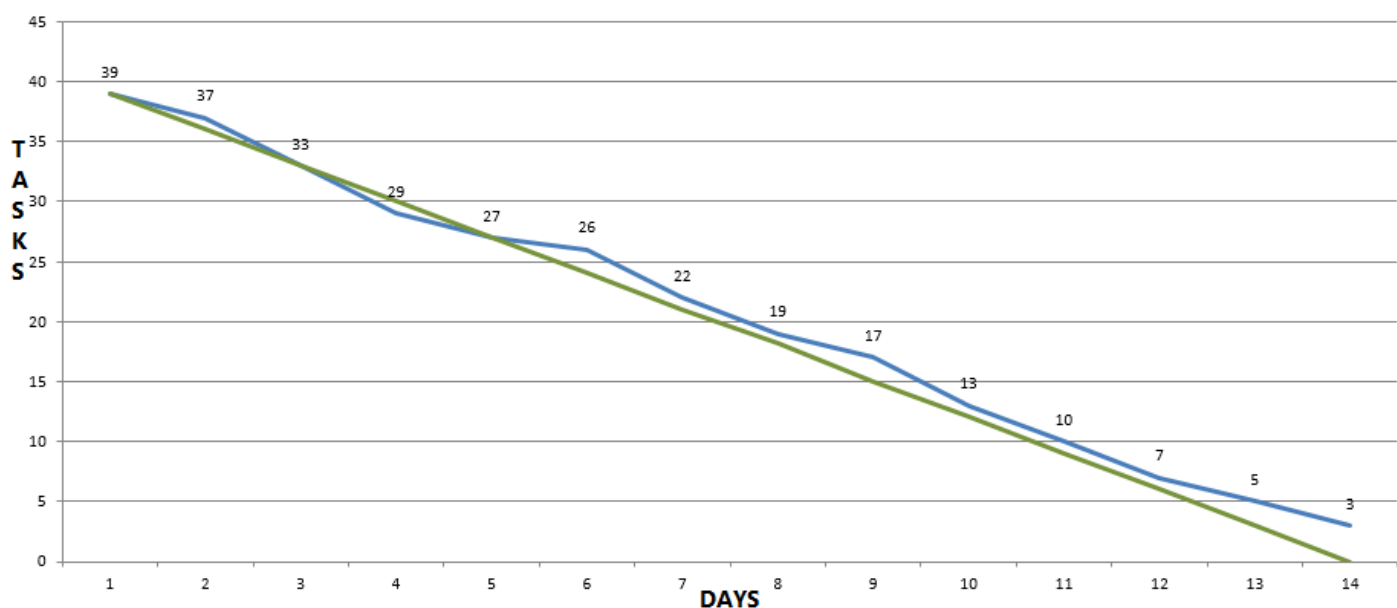
What needs improvement:

- There needs to be an increase in knowledge acquisition as it takes up a significant amount of time.
- Time management should be better handled and work distribution could also be done better.

Next Steps:

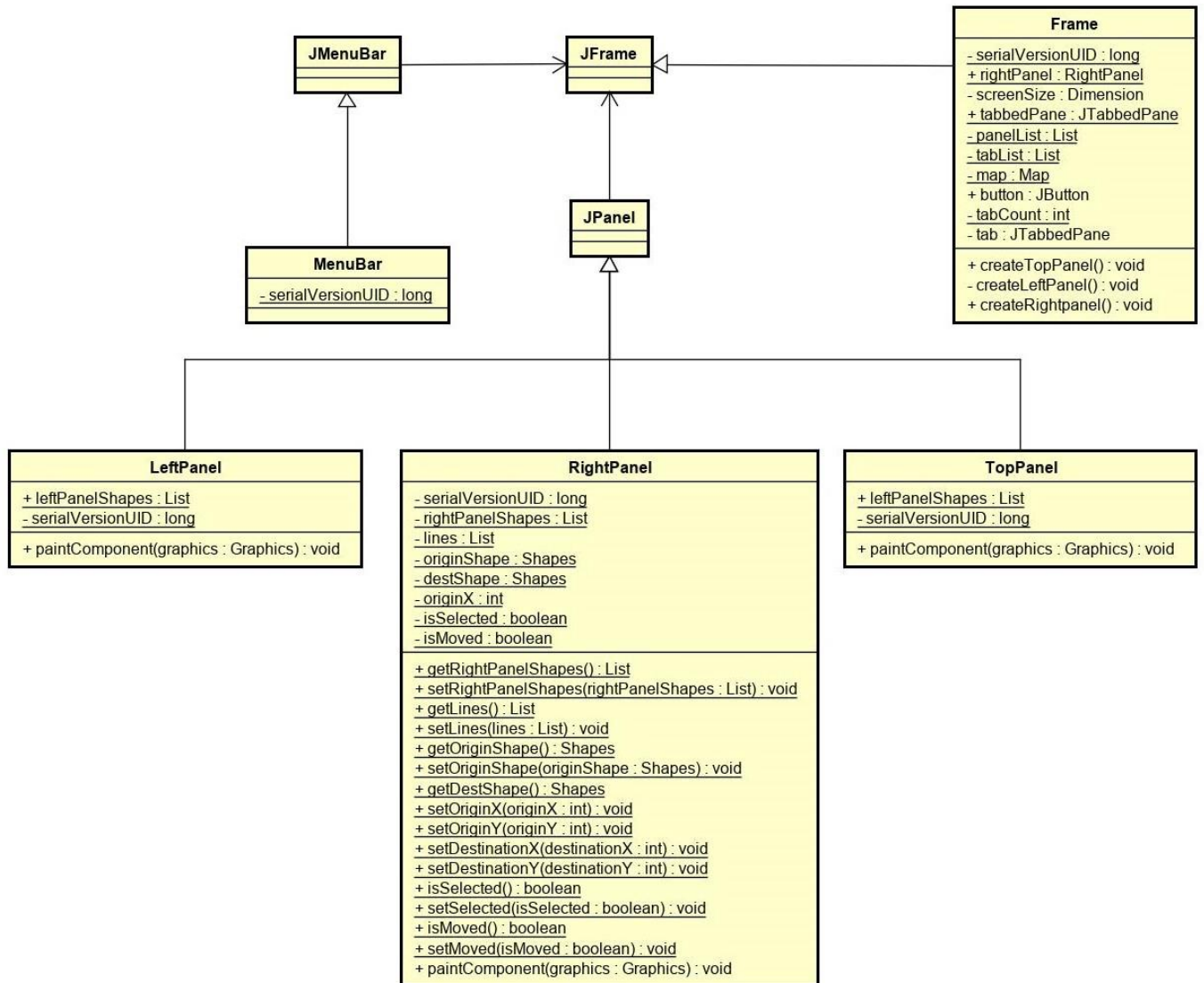
- Ensure better division of tasks among the team
- Since this is the last sprint, we can take away learning from this and work individually on what we can improve.

Burndown Chart:

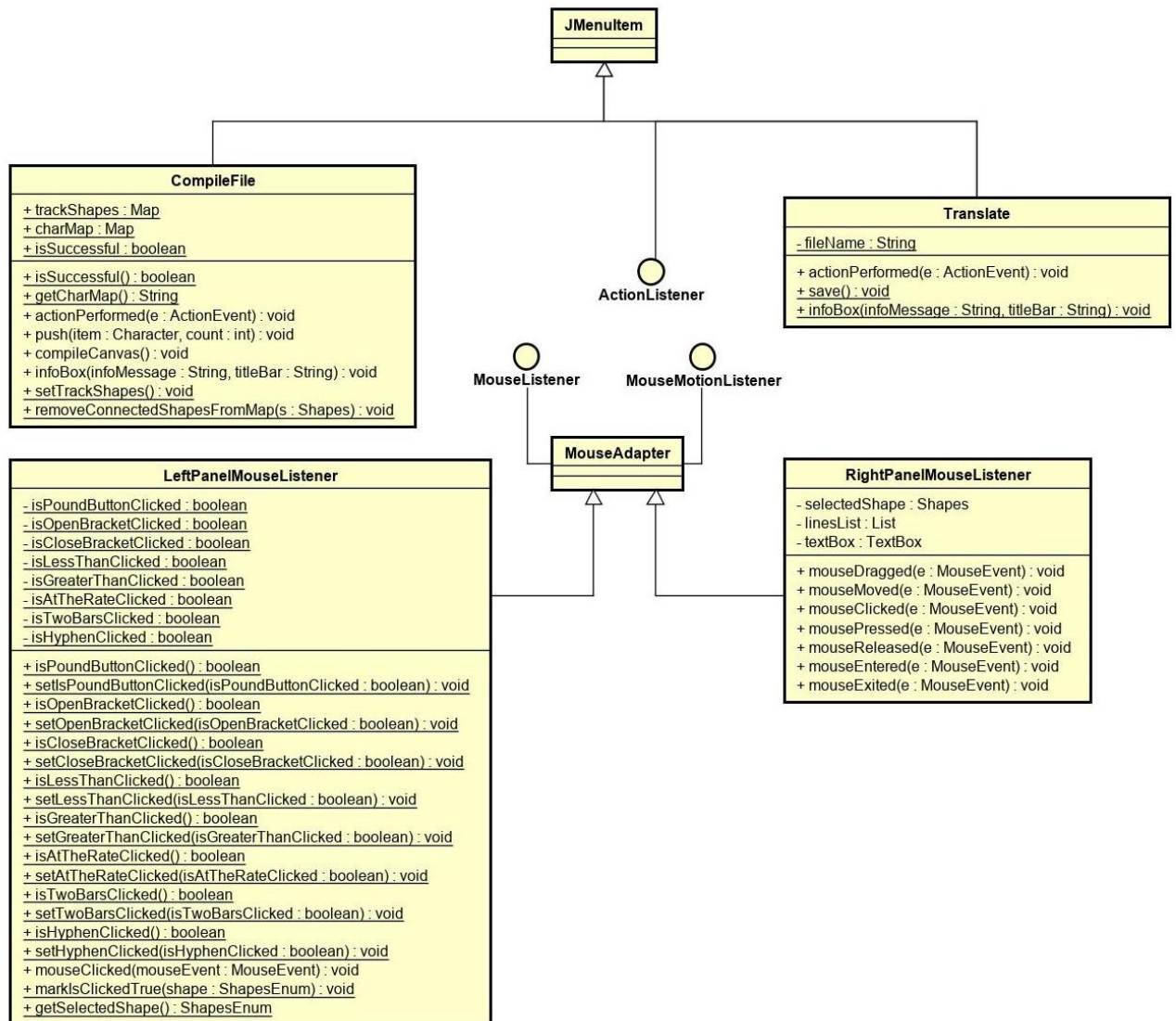


Class diagram:

Package : View



Package: Controller



Package: Model

Structural Metrics:

Package : View

Class name	Ca	Ce	I	A	D
Frame	0	1	1	0	0
LeftPanel	0	1	1	0	0
RightPanel	0	1	1	0	0
TopPanel	0	1	1	0	0
JPanel	1	1	0.5	0	0.5
JFrame	3	0	0	0	1
JMenuBar	1	1	0.5	0	0.5
MenuBar	0	1	1	0	0

Package: Controller

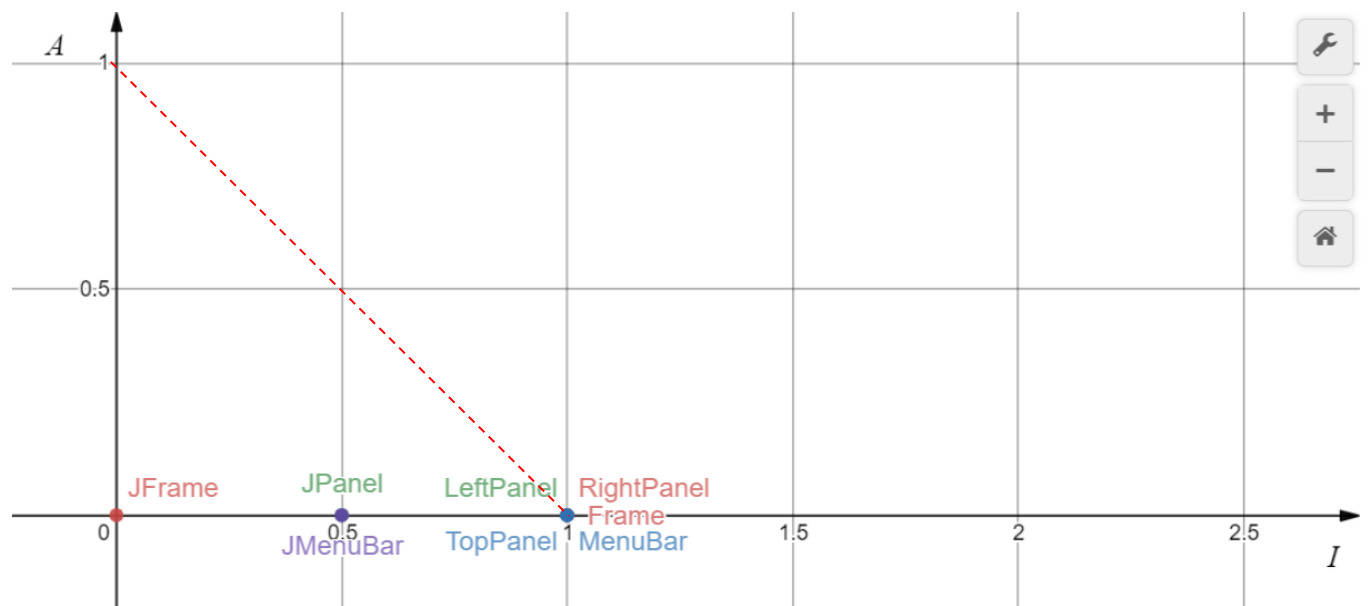
Class name	Ca	Ce	I	A	D
CompileFile	0	1	1	0	0
Translate	0	1	1	0	0
MouseAdapter	2	2	0.5	0	0.5
LeftPanelMouseL	0	1	1	0	0
RightPanelMouseL	0	1	1	0	0
JmenuItem	2	0	0	0	1

Package: Model

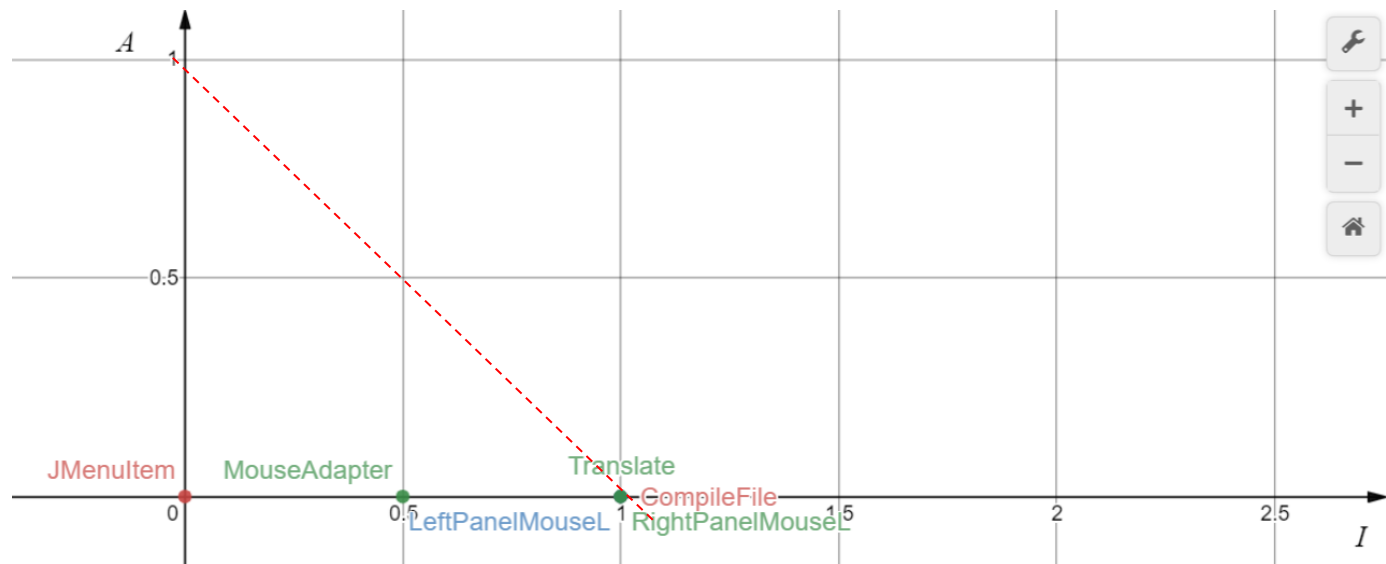
Class name	Ca	Ce	I	A	D
Shapes	10	0	0	1	0
AtTheRate	0	2	1	0	0
CloseBracket	0	2	1	0	0
Dot	0	4	1	0	0
Greaterthan	0	2	1	0	0
Hyphen	0	2	1	0	0
LessThan	0	2	1	0	0
OpenBracket	0	2	1	0	0
Pound	0	2	1	0	0
TwoBars	0	2	1	0	0
VerticalBars	0	4	1	0	0
Connections	10	1	0.09	0	0.91
LoadDocument	1	1	0.5	0	0.5
SaveDocument	1	1	0.5	0	0.5
NewTab	1	1	0.5	0	0.5
ShapesEnum	0	1	1	0	0
TextBox	0	1	1	0	0
Button	0	1	1	0	0
Line	1	0	0	0	1

I vs A plot:

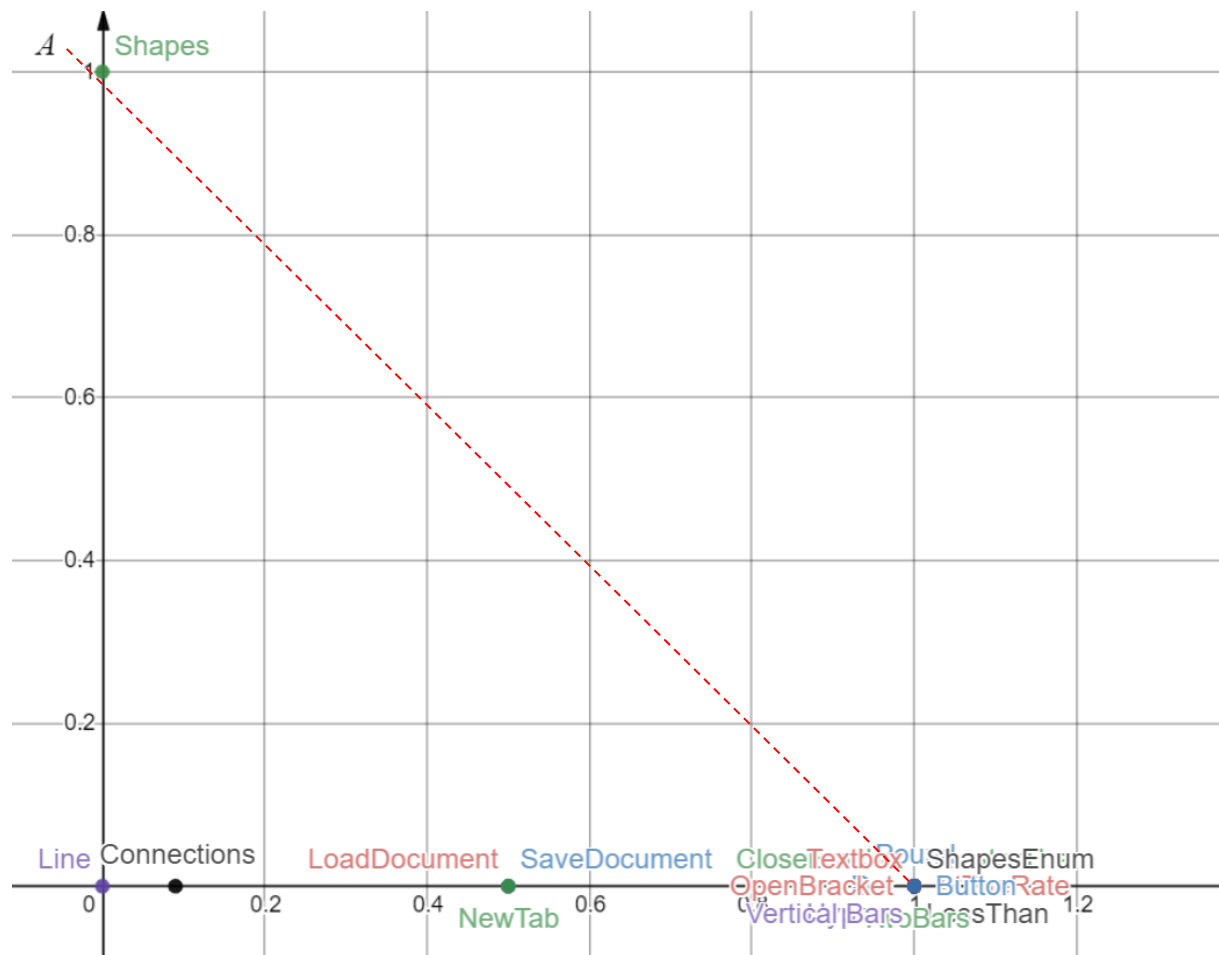
Package: View



Package: Controller



Package: Model



SAP:

Package: View

- JPanel
- JMenuBar
- JFrame

Package: Controller

- MouseAdaptor
- JMenuItem

Package: Model

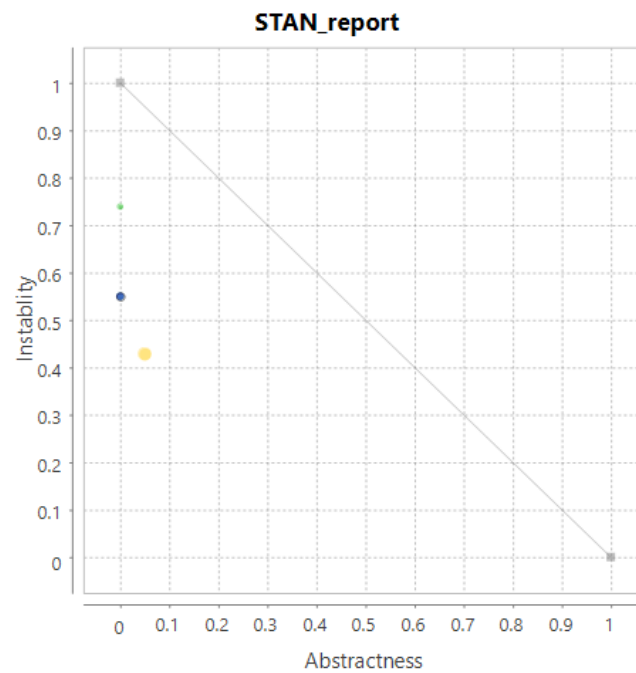
- Connections
- LoadDocument
- SaveDocument
- NewTab
- Line

SDP:

There are no red-light connections

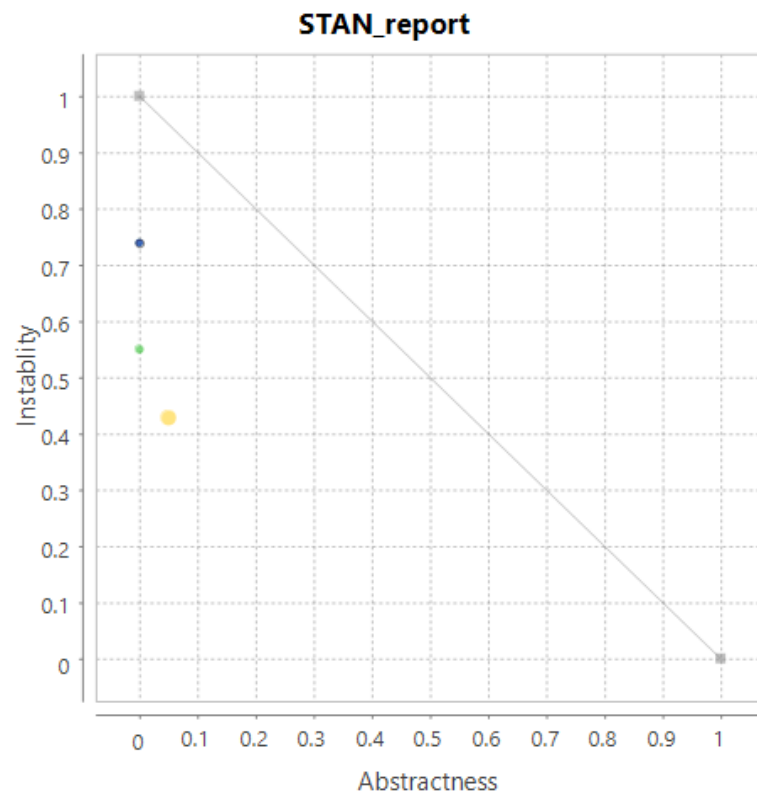
STAN tool results:

View package – Distance:



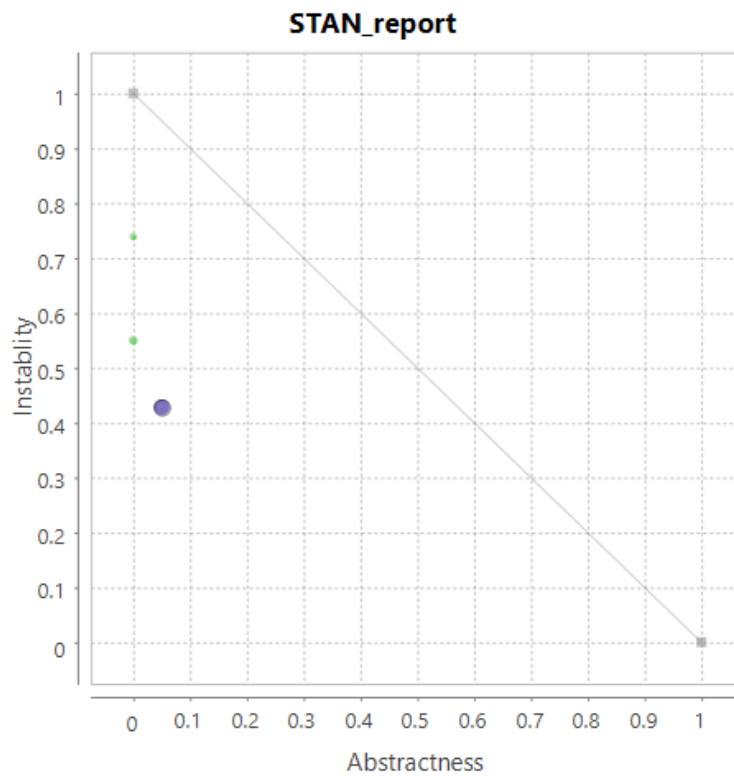
Overview Metrics	
Category/Metric	Value
Count	
Units	5
Classes / Class	0.29
Methods / Class	5.14
Fields / Class	3.71
ELOC	273
ELOC / Unit	54.6
Complexity	
CC	1.22
Fat	4
ACD - Unit	20.00%
Robert C. Martin	
D	-0.45
A	0
I	0.55
Ca	9
Ce	11
Chidamber & Kemerer	
WMC	6.29
DIT	1
NOC	0
CBO	n/a
RFC	n/a
LCOM	n/a

Controller package - Distance:



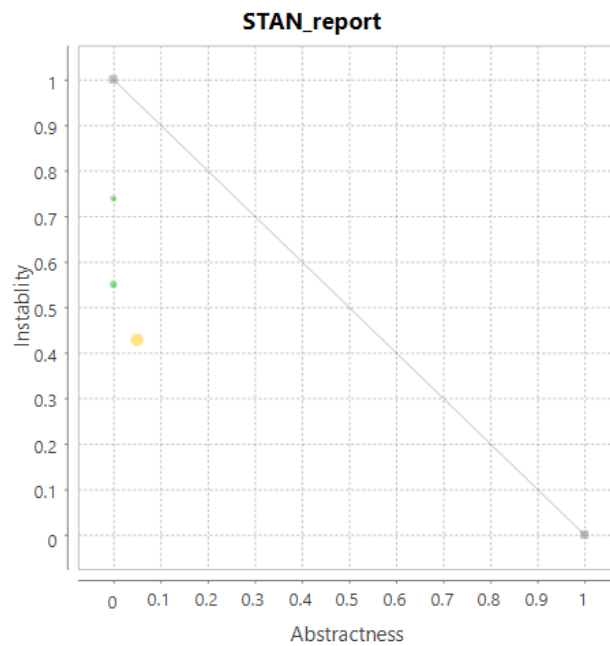
Overview Metrics	
Category/Metric	Value
Count	
Units	4
Classes / Class	0
Methods / Class	11
Fields / Class	3.75
ELOC	451
ELOC / Unit	112.75
Complexity	
CC	2.86
Fat	2
ACD - Unit	16.67%
Robert C. Martin	
D	-0.26
A	0
I	0.74
Ca	6
Ce	17
Chidamber & Kemerer	
WMC	31.5
DIT	1
NOC	0
CBO	n/a
RFC	n/a
LCOM	n/a

Model package – Distance:



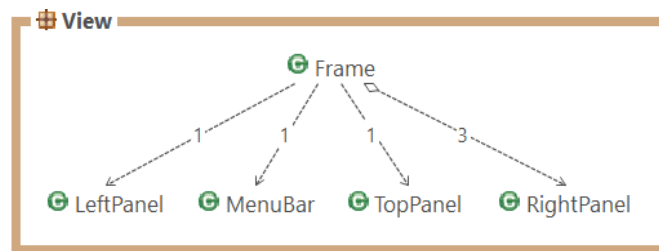
Overview fx Metrics	
Category/Metric	Value
Count	
Units	20
Classes / Class	0
Methods / Class	9.85
Fields / Class	5.55
ELOC	1762
ELOC / Unit	88.1
Complexity	
CC	1.95
Fat	30
ACD - Unit	25.00%
Robert C. Martin	
D	-0.52
A	0.05
I	0.43
Ca	8
Ce	6
Chidamber & Kemerer	
WMC	19.2
DIT	1.5
NOC	0.5
CBO	n/a
RFC	n/a
LCOM	n/a

Complete Project – Distance:

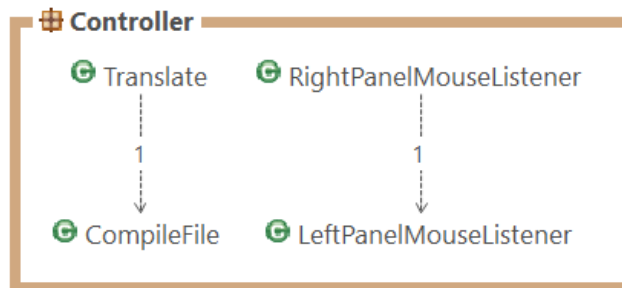


Overview Metrics	
Category/Metric	Value
Count	
Libraries	1
Packages	3
Units	29
Units / Package	9.67
Classes / Class	0.06
Methods / Class	8.94
Fields / Class	4.9
ELOC	2486
ELOC / Unit	85.72
Complexity	
CC	2
Fat - Libraries	0
Fat - Packages	6
Fat - Units	93
Tangled	28.07%
Tangled - Libraries	0.00%
ACD - Library	0.00%
ACD - Package	100.00%
ACD - Unit	74.14%
Robert C. Martin	
D	-0.41
D	0.41
Chidamber & Kemerer	
WMC	17.87
DIT	1.32
NOC	0.32
CBO	n/a
RFC	n/a
LCOM	n/a

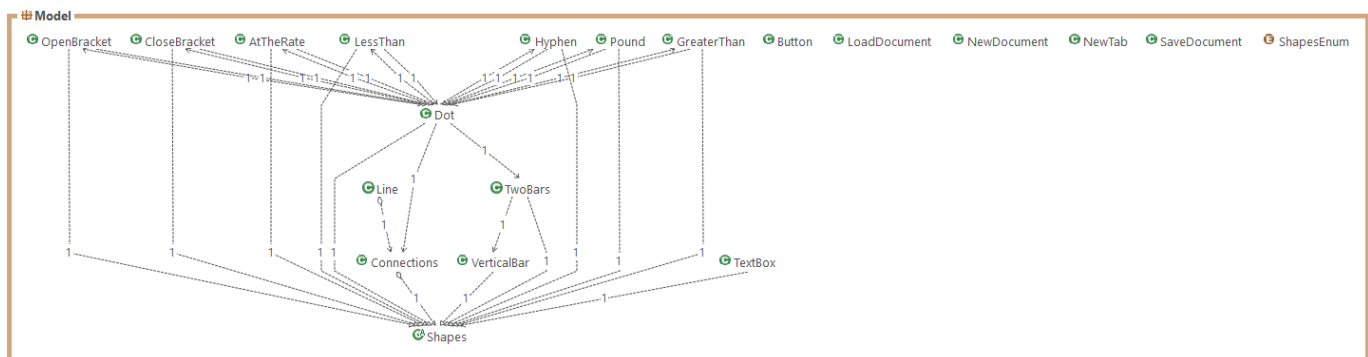
View – Composition



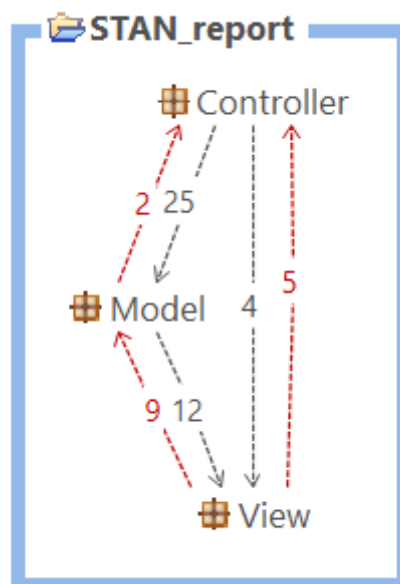
Controller – Composition



Model – Composition



Complete Project – Composition



Self-Evaluations:

Amudhan Manisekaran:

- I worked on GUI and application design.
- Major features implemented are Shapes and Connections.
- Designed buttons for all shapes in all panels.
- In Project 5,
 - I worked on creation of new shape (#)
 - Responsible for creation of top panel.
 - Created image buttons for shapes in top panels.
- Coordinated and delegated tasks to team members and organized all meetings.

Anusha Singh

- Worked on clean code and ensured coding practices were followed.
- Fixed defects in Shapes class.
- Corrected defects in CloseParentheses functionality.
- Created I vs A graphs and gave SAP and SDP.
- Fixed Textbox.java and implemented functionality
- Extensive documentation done and review and retrospective meeting notes recorded.
- Participated in all team discussions and attended all sprint meetings.

Kartik Mathpal

I worked on the application backend part and application design. Major features implemented were the app Frame, Menu, Save, Load, compilation and translation functionality and worked closely with my teammates if they needed my support in their development. Also Worked in resource delegation and scrum planning.

Sandya Manoharan:

- I worked on the tasks of creation of few shapes and the connections between them.
- Fully responsible for the Burndown chart, User stories, tasks and Sprint table.
- Actively involved in team meetings and took major team responsibilities.
- In Project 5,
 - I worked on JMenubar for File and Project menu.
 - Worked on adding scrollbar functionality and screen size.
 - Modified connecting two shapes functionality from Project 4.

Sayali Tanawade

- The project is the final product of everyone's efforts and great teamwork. I primarily worked on the following tasks:
- Implemented scroll bar functionality for the right panel to see the shapes that are moved out of the right panel's initial size.
- Implemented a scrollbar for left panel to be able scroll through all buttons when frame is resized
- Changes frame to re-sizable and adjusted sizes of panels and frame to implement above functionalities.
- Created STAN reports using STAN4j software to be added in report.
- Apart from this I participated in all team meetings and design discussions during initial planning.