Sprint Review — Sprint 4

Introduction

This report summarizes the results of Sprint 4, with a focus on achieving goals through effective code completion, as well as identifying and addressing areas that require additional attention.

Sprint Goals

- **Data Visualization (DV):** configured the DV, it can visualize the outcomes of optimization, which are saved in the Result Data Manager, and it has the capability to export the outcomes to an external file in CSV format.
- **Implement Scenario 2:** implemented this scenario, that contains different boilers from first scenario(Gas Motor, Electric Boiler).
- **State Machine Diagram (SM):** describes the series of actions performed by an object in reaction to events, portraying its behavior throughout its lifespan.
- **Entity Relationship Diagram (ER):** Visualize our database's design structure and how various types of data interact.
- **Optimizer View (OPT):** configured the OPT: It is set up to import data from a CSV file for processing. It also can manage the selection of boilers for processing the data.
- **Unit Testing (Back-end code):** executed class files, it can concentrate on testing particular method code in project classes separately.

Achievements

1. **Coding Progress:** Completed configuration of Optimizer View (OPT), so that it can selection of boilers and import data file to optimization.

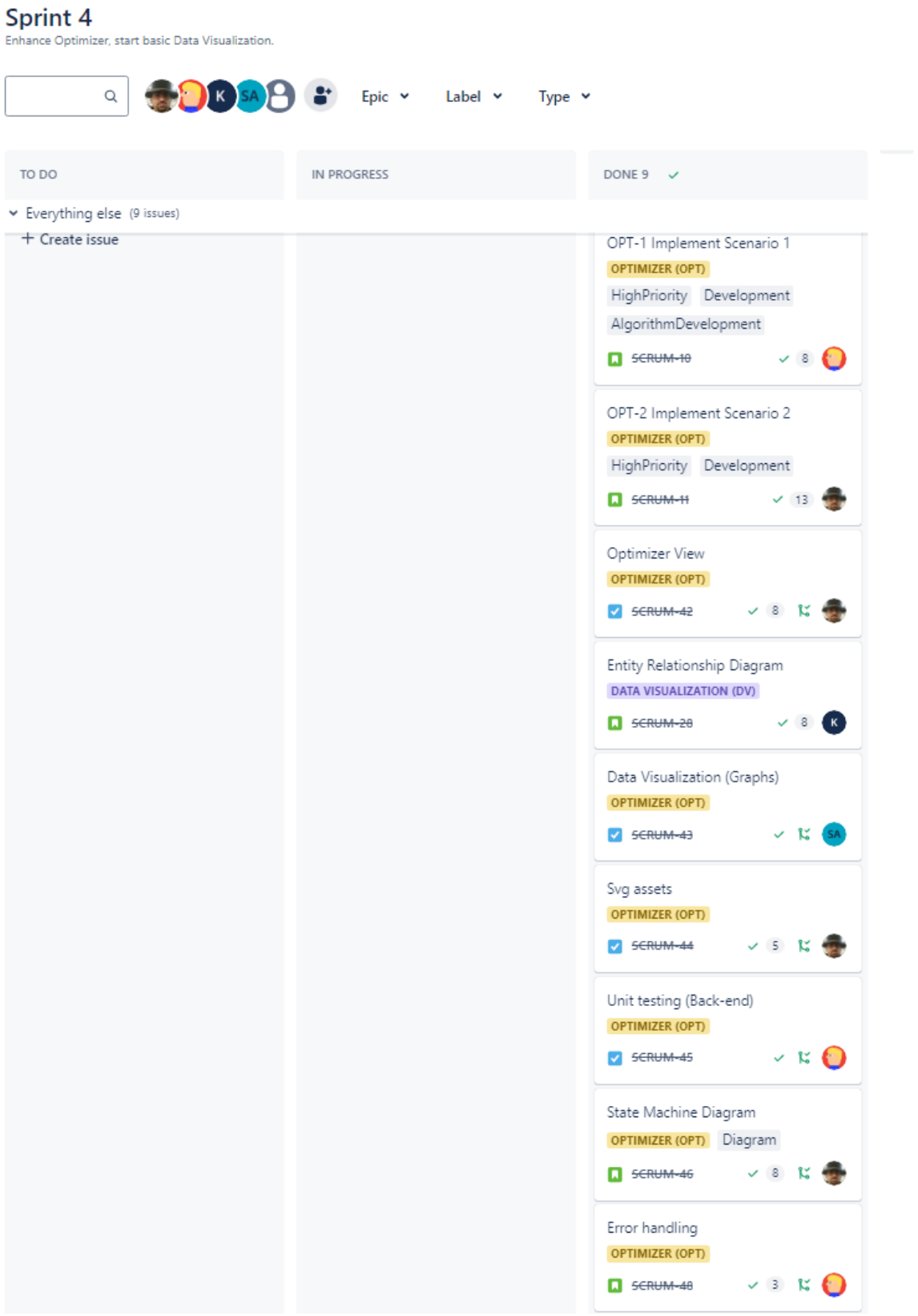
   Completed configuration of Data Visualization (DV), so that it can graphs results the optimization results to charts.

   Completed configuration of unit tests code of ProfHeat.Core.Tests, that tests all methods insides files of ProfHeat.Core.
2. **Diagrams:** Finished first iterations of Entity Relationship diagram(which may be varied as the project progresses).
   Finished first iterations of State Machine diagram(which may be varied as the project progresses).
3. **Task Assignments:** done through meeting, discussion, and cooperation among us so that each of us carried out his assigned task.
4. **Documentation:** Better project documentation including diagram files, lectures and hand-ins in docs and guides in the readme.

Action Items for Next Sprint

- Focus on the project's initial release and the completion of the project report.

Scrum Board

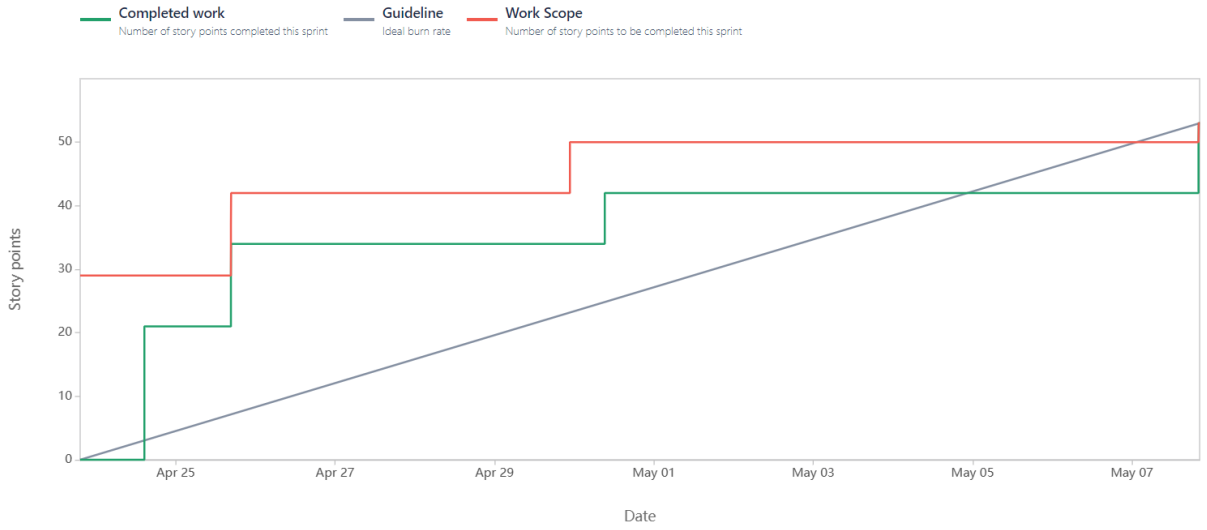

Sprint 4
Enhance Optimizer, start basic Data Visualization.
Epic
Label
Type
TO DO
IN PROGRESS
DONE 9
Everything else (9 issues)
Create issue
OPT-1 Implement Scenario 1
OPTIMIZER (OPT)
HighPriority
Development
AlgorithmDevelopment
SCRUM-10
8
OPT-2 Implement Scenario 2
OPTIMIZER (OPT)
HighPriority
Development
SCRUM-11
13
Optimizer View
OPTIMIZER (OPT)
SCRUM-42
8
Entity Relationship Diagram
DATA VISUALIZATION (DV)
SCRUM-28
8
Data Visualization (Graphs)
OPTIMIZER (OPT)
SCRUM-43
Svg assets
OPTIMIZER (OPT)
SCRUM-44
5
Unit testing (Back-end)
OPTIMIZER (OPT)
SCRUM-45
State Machine Diagram
OPTIMIZER (OPT)
Diagram
SCRUM-46
8
Error handling
OPTIMIZER (OPT)
SCRUM-48
3

Burndown Chart

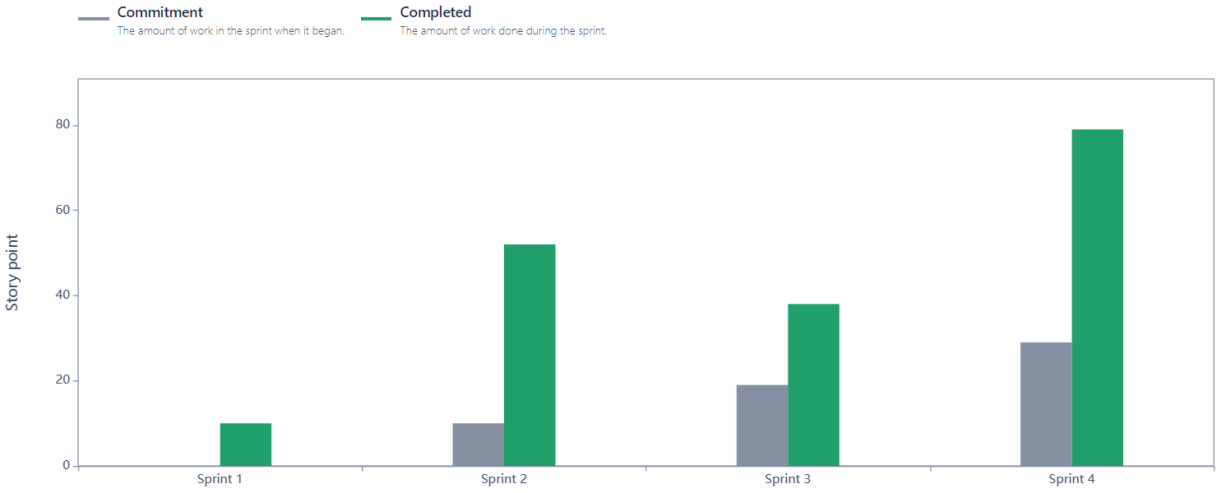
Sprint: Sprint 4 | Estimation field: Story points

Date - April 23rd, 2024 - May 7th, 2024

Sprint goal - Enhance Optimizer, start basic Data Visualization.



Velocity Chart



Sprint	Commitment	Completed
Sprint 1	0	10
Sprint 2	10	52
Sprint 3	19	38
Sprint 4	29	79

Sprint Retrospective — Sprint 4

What Worked Well

- **Meetings:** We still added the day of meeting supervisor to our meeting day following advice from supervisor which led more productive discussions.
- **Extra Meetings:** We still added an additional day to more productive.
- **Task Delegation:** As we divided up more coding and design work, task distribution got better.
- **Project Structure:** Connection is almost complete between core logic and GUI, we are working on fixing some bugs and testing the system.

Areas to Improve

- **Code Explanation Meetings:** We still work on learning about codebase together, both individually and as a team.
- **Jira Usage:** We still need more individual working and discipline in adding tasks.
- **Pull Request:** We are working on discipline in the usage of individual branches for development and maintain the code.
- **Team Engagement:** We collaborate to increase productivity by searching for the best educational and programming resources.

Future Considerations

- **Team Engagement:** Provide motivation and support for individuals to successfully finish their assigned tasks and projects within the given timeline.
- **Documentation:** Everyone should participate in the documentary work because it is an important part of understanding and documenting the project.

Conclusion

Sprint 4 was the most cooperative in terms of programming code, with better participation and increased productivity compared to the previous sprint.

The next sprint will be focused on the first release of the project application and project documentation, including the completion of the project report.