Group 23 Hour Tracker

Group 23 Lovisa Sjöberg Oscar Arbman Ziyuan Jia Erik Diep

Friday $7^{\rm th}$ March, 2025

Report Timestamp

Lovisa Sjöberg

- 0.5h: Having a meeting to discuss about the assignment
- 1h: Meeting about the selected repository
- 0.5h: Meeting about improving the essence
- 2h: Reading up on the library documentation
- 0.5h: Fork repository and set up tool dependencies
- 1h: Identify the parts of the code which we should modify in a meeting and then a few days later realize we should not modify that part
- 1h: Tried to run the gson-project with Clover to track what tests run past the code we wanted to modify but it did not work because of some plugin.
- 1h: Had a meeting and realized maybe it did not work the way we wanted it to and started drafting up a new idea.
- 1h: Started setting up a test project with Maven Java to be able to locally test the changes of the forked gson library
- 1h: Continued setting up the test project, troubleshooting installing and using the correct snapshot
- 1h: Still struggled with getting outputs from the test project testing the forked repository
- 1h: Restarting resolving the issue by following Marcono's response to the issue, creating a flag enabling in the Gson- and GsonBuilder-classes, continually running tests to make sure it does not break the project
- 1h: Finalizing the flags, noting down where in the code I modified
- 1h: Starting setting up FlatteningTypeAdapterFactory.java, following Marcono's response as a template
- 1h: Troubleshooting errors that occurred due to the new file and figuring out how to create a Gson-instance in the test project which actually enables the flattening logic we want
- 1h: Continuing troubleshooting
- 2h: Encounter errors in the flattening logic which I misinterpreted and tried to fix an error which did not need to be fixed
- 2h: Was still trying to solve an error which was not an error. At this point could not do system prints in the forked repository because of a plugin.

- 1h: Finally figured out what did not work, and managed to outsource that to another member in the group
- 2h: Wrote about the patch in the report
- 1h: Had a meeting again to discuss the next steps in the project, identifying requirements, thinking about the UML and writing tests for the new patch
- 1h: Started drafting up a UML diagram
- 1h: Researching and understanding how to do a UML digram
- 2h: Fixed the UML diagram and added it into the report as well as explaining it
- 2h: Meeting 4 hours before lab presentation, writing on the report mainly and discussing tests

Oscar Arbman

- 0.5h: Having a meeting to discuss about the assignment
- 1h: Meeting about the selected repository
- 0.5h: Choosing our first issue
- 0.5h: Discussing how to solve it
- 0.5h: Finding a new issue
- 1h: Exploring if we could improve ReflectAdapeterFactor.java to include flattening
- 1h: Testing differnt approaches of improving ReflectAdapeterFactor
- 1h: Meeting about should we create a new class or Improve ReflectAdapter-Factory
- 2h: Keep trying to improve reflectAdapterFactory, faced with an never ending wall of errors I realized this is not the best course of action and therefore agreeing we should create a new class to resolving the issue.
- 1h: Setting up lovisas test enviorment
- 1h: Trying to understand why Marcono1234 proof of concept gets an error: Expected a JsonObject but was JsonPrimitive
- 1h: Analysing other gson adapterfactories trying to understand how they handle JsonPrimitive or other unwanted inputs
- 1h: Analysing Marcono1234 proof of concept code

- 1h: Analysing how different classes interacts with each other
- 2h: Meeting about what needs to be done and steps of getting there
- 1h: Implementing a type check such that any JsonPrimitive like a int, string, Integer or any other, we will return null, meaning we will send the problem to a lower down default gson TypeAdapter create method.
- 1h: Improving Marcono1234 proof of concept such it can handle flattening multiple nested JSON instead of just deapth 1
- 1h: Imrpoving Marcono1234 proof of concept such it can handle Unflattening multiple nested JSON instead of just deapth 1
- 1h: Writing documentation for FlatteningAdapterFactory.java
- 3h: Writing on rapport and fixing final bugs and issue before presentation
- Uncountable hours of banging head against a code error wall

Ziyuan Jia

- 0.5h: Having a meeting to discuss about the assignment
- 1h: Meeting about the selected repository
- 0.5h: Meeting about improving the essence
- 0.5h: Fork repository and set up building environment
- 2h: Trying to get a grasp of the library's structure
- 1h: Set up a demo project to reproduce the JsonParseException issue
- 1h: Analyze the stack trace to understand gson.fromJson()'s calling stack
- 1h: Developed and tested a fix to JsonParseException and JsonSyntax-Exception issue
- 1h: Tested a new implementation of the typeadapter at the demo project, realized that the previous issue was caused by user error
- 2h: Meeting with the group to sync process on the new issue
- 1h: Assisted the group on implementing FlatteningTypeAdapterFactory
- 1h: Debugged build errors caused by warnings when trying to build the new FlatteningTypeAdapterFactory
- 1h: Analyzed the GsonBuilder class trying to figure out how to load the FlatteningTypeAdapterFactory

- 1h: Started to implement the new unit tests for the FlatteningTypeAdapter-Factory
- 1h: Located a bug where duplicate keys in the json object went uncaught by the adapter. Discussed possible fixes with the group
- 1h: Deceided to throw an error for both duplicate keys and dot seperator inside keys situation, implemented the fix and updated the test cases
- 1h: Added more test cases to check for the un-flatten and write to json flow
- 1h: Cleaned up gson.java and gsonbuilder.java to remove obsolete adapter loader flags
- 3h:Meeting 4 hours before lab presentation, writing on the report mainly and discussing tests

Erik Diep

- 0.5h: Having a meeting to discuss about the assignment.
- 1h: Meeting about the selected repository.
- 0.5h: Choosing Our first issue.
- 0.5h: Discussing how to solve it.
- 2h: Trying to get a grasp of the library.
- 0.5h: Setup the forked repository seeing if everything works.
- 1h: Researching about flattening a json file.
- 1h: Analysing the suggested solution in the "issue 2555" with TypeAdapter.
- 1h: Setup a test project to see if our solution works on my machine.
- 1h: Fixing dependencies issues with my machine.
- 1h: Metting discussing issues we're having and how to resolve it.
- 1h: During the remaining of time of the meeting, I made some psudo code test cases (for myself) we should pass and fail.
- 1h: Writing in the report about my contribution.
- 1h: Meeting to discuss what needs to be accomplish until our next meeting.
- 1h: Online meeting over discord about what we all have done yet.
- 2.5h: Coding the test for FlatteningTypeAdapterFactoryTest.

- \bullet 0.5h: Discussing possible solution for some of our member having local issues over discord
- 4h:Meeting 4 hours before lab presentation, writing on the report mainly and discussing tests.
- Uncountable hours of banging head against the wall because of dependencies issues