

Team Reflection

Week 39

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Customer Value and Scope

- the chosen scope of the application under development including priority of features and for whom you are creating value

The application is supposed to give points for the number of passengers in a car. The points can be accumulated in order to earn rewards such as coffee or snacks at gas stations. The idea is to encourage carpooling in order to reduce air pollution and traffic congestion. The priority of features: identify the number of people in the car, award points, create a shop where rewards can be redeemed. Value created for: end consumers (drivers), Volvo Car Corporation, the society (less pollution, less congestion)

- the success criteria for the team in terms of what you want to achieve with your application

A user-friendly and intuitive application that gets many active users who carpool often, thus earning a lot of points and redeeming a lot of rewards. A cleaner environment and less congested roads.

- your user stories in terms of using a standard pattern, acceptance criteria, task breakdown and effort estimation

- As an eco-friendly driver, I want to be rewarded for driving with several people in the car and possibly for e.g. driving with low RPM where possible (high gears).
- As a driver I want to see my awarded points on the board that shows the number of points awarded for the current trip and in total.
- As a Volvo driver I want to be able to visit the store page quickly, since I want to spend my points for rewards, and view my inventory (what I have spent my points on).
- As a team we want to learn about Android API since we need this information to complete this project
- As a team we need a version control system git repository so we can communicate and work with the tasks
- As a team we need to setup the Android CAR project in Android Studio and create the car simulator virtual device as well as familiarise with the Semcon python scripts for simulating car signals to simulator, in order to test/develop anything.

- your acceptance tests, such as how they were performed and with whom

Acceptance tests for:

- Creating 'Home' and 'Back' buttons in app: testing that the buttons work as they are supposed to.
 - Getting simulator signals from the seat belt sensors: testing that the signals are read as they should and that the number of people in the car is calculated
- [the three KPIs you use for monitoring your progress and how you use them](#)
 Since we are still at a very early stage of development, our main KPIs are team velocity and effort estimation. We want to keep a reasonable pace and complete the tasks assigned for the current sprint. Practically how we measure our work is how many tasks and/or how much on each task we complete each week. Next week we probably want to do slightly more task work than this week, but about the same should do we think. To do this everyone in the team has to actively contribute to the deliveries with taskwork.

Social Contract and Effort

- [your social contract, i.e., the rules that define how you work together as a team \(this means, of course, you should create one in the first week\)](#)
 Our social contract still hasn't changed since formulated the previous weeks. We still strive to help each other out when there's a need as well as divide the work equally between all team members. We will try to follow this contract as far as possible. If we'd discover further ahead that something isn't working with respect to this contract, then we'll have to tackle that problem appropriately when (if) it does happen, and perhaps modify the contract.
- [the time you have spent on the course \(so keep track of your hours so you can describe the current situation\)](#)
 Like previous weeks we define the hours spent on the course as the hours spent strictly on the project (including exercises with the team). With this definition we have probably spent around 14 hours this week, so in total $8 + 13 + 14 = 35$ hours (as previous weeks' work was estimated to about 21 hours). Among this week's hours, 1 hour was spent on the week's counseling meeting, 4 hours on a collaborative mid-week meeting and the rest on individual task work. (The time for writing these reflections is excluded in this time estimate.) We estimate that the next week's hours spent should be about the same; as we continue working off the tasks. If more hours is demanded from us in order to finish our tasks for this sprint then we will have to try to put in more hours.

Design decisions and product structure

- [how your design decisions \(e.g., choice of APIs, architecture patterns, behaviour\) support customer value](#)
 This week we started on implementing the actual app (task work); so we got more experience with the APIs. We have only used the standard Android APIs and Android CAR APIs thus far, and tried to get the basic things working for starters. Thus we have not set off too much thought on what's the best design decisions in the actual implementation yet, but we have discussed at the team meetings how we want the different features of the app to be structured and to look. Next week we will probably be more in a position where we can start to get things working and looking as we

have discussed this and previous weeks. To do this we will have to complete all the groundwork first and then we can use this groundwork to build further and move the app implementation in the direction where we have in mind.

- [what you document and why, by using e.g. use cases, interaction diagrams, class diagrams, domain models or component diagrams, text documents etc.](#)

As of now we have only documented our project by our Scrum planning-board, drawn images of the different app screens on paper sheets, written reflections in text documents, and commented our code in an intuitive, explaining way. We think this works well for us thus far so we do not really have any plans of incorporating further documentation (such as UML diagrams) next week. If we find out later that we might need further documentation for whatever reasons; then we will have to come up with an appropriate solution when/if that happens to be the case.

- [how you use and update your documentation throughout the sprints](#)

In order to update the teams reflections, we have been using google drive, where the team has been able to add reflections and weekly reports to put updates throughout the sprint. This week the team has used Trello as mentioned above; Trello provides the ability to write and update user stories, tasks, etc. in an efficient way. This week we started writing code for the project, so the team's GitHub repository has been used to publish completed tasks. Next week we plan to continue along these lines; and will do so by running the same routines outlined above.

- [how you ensure code quality, enforce coding standards, and application of scrum](#)

This week we started coding and we tried to write as easily maintainable code as possible; with good design patterns and such in mind specifically. We will continue to ensure code quality by reviewing the updates and voicing our concerns and opinions, and the enforcement of coding standards is handled individually, any discrepancies will be caught by the team and fixed. Github will be used for version control, allowing for easy back-tracking and review of additions. This is the system we have attempted to use this week and plan to further apply in the future of the project, but of course the plan can be adjusted if we notice that the system is inadequate.

Application of Scrum

- [the roles you have used within the team](#)

The roles for the team are the same as the previous week. We have a scrum master who negotiate with other teams and ask/communicate with the product owner if needed. And as before the remaining five team members are ordinary developers. Their job is to contribute something to the team in the form of develop the product by encoding and complete the tasks. The scrum master also helps to develop the product as mentioned last time, but he also make sure that everything is fine and if there is some questions to the product owner or general questions to other teams.

Further we should continue to use our roles as they are and continue to develop and contribute with everything that is required to deliver an application. To get there every team member need to follow the roles. As a developer for example, namely to develop code and be involved in communications and to perform the work that is relevant, specific, for every week. And finally in the end deliver a product.

- [the agile practices you have used for the current sprint](#)

For the current sprint we have used user stories and completed some of the tasks that are related to the user stories. We've had stand-up meetings one time this week and also one meet for 4 hours to discuss and start encode. We have tested our progress continuously, and we try to keep a sustainable pace in our work.

Compared to last week we have start encode and also complete one task that requires encoding. That is the home and store buttons on the first page when the application start. Moreover we have to continue encode with the significant parts of the project and continue having stand-up meetings online or physically and include more testing in our progress.

To get there we have to work efficiently, divide code into small portions, test often and set up more meetings to achieve the best performance for the sprint. So for next week the goal is to meet first at monday and then at wednesday and encode.

- [the sprint review \(either in terms of outcome of the current week's exercise or meeting the product owner\)](#)

We met the product owner, and with a representative from Volvo and also the representative from Semcon. We discussed our ideas for the application that we have started to work with. All of our ideas were accepted and seemed interesting to the representatives. We asked the representative from Volvo about if we can use the belt sensors for the passengers in the car because right now we just found that there was easy to find out the belt sensor for the driver. We also discussed about the negative factors with our application, like that people can cheat if they put something heavy on the seat and connect the belt even though if there is no one sitting there. But there is a trust and the purpose is to drive environmentally friendly by going together.

Finally to get there we have to find out more about the belt sensors for the passengers and dig a little deeper and ask if there is anything we can not access. Last but not least our planning from the prior weeks has been successful and if we continue in the same way we shouldn't have any major issues.

- [best practices for using new tools and technologies \(IDEs, version control, scrum boards etc.\)](#)

Right now the best practices for using new tools is that we used simPy which is a simulator to simulate car signals to the emulator. This can help a lot in our case because we need to simulate to see if our application work as it have to. And we also

got used to trello(scrum board) more than before which help us to visualise our progress, which tasks we currently work on and what we have done.

Further we want to continue use best practices for new tools that can contribute to our project. Practices with emulator helps us alot to visualizing by click on different buttons for example and see if they work as they should. But we should also get more comfortable with the tool SimPy, so we can learn how to use it fully because it's quite new to most of us. And simulating is a important process in this kind of project.

To get where we are now to where we want to be, then we should continue use and practise with the tools we currently use, emulator for visualising, android studio to develop our code, github to upload our work and get access to uploaded files from other members in our team and also the scrum board tool trello where we can keep track of the progress in our work by visualize a board online. Finally we should continue use the new tool (SimPy) that we got used with this week and run it often to simulate car signals and make sure that they work fine for our application.

- [relation to literature and guest lectures \(how do your reflections relate to what others have to say?\)](#)

Our reflections relate to what others have to say structurally in the sense that we use the A-B-A->B way of reflecting where we find it relevant and/or applicable; where A is where we are currently, B is where we want to be next week, and A->B explains how we might get from A to B. When it comes to what we actually say when we reflect in this way (the actual content), we have not really read any reflections of others this week so we couldn't say how it relates to what others say.