Process Report

Airline Reservation System

**Heterogeneous System**

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**Number of characters:** including spaces

**Software Technology Engineering**

**Semester 3**

**27 November 2020**

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# Introduction (Karrtiigehyen and Nicolas Popal)

Fgbrtbertbertb

# Group Description (Karrtiigehyen and Nicolas Popal)

Our group consists of four people:

Jan Vasilcenko – Czech Republic

Karrtiigehyen Veerappa – Malaysia

Nicolas Popal – Czech Republic

Patrik Horny – Slovakia

Four members of the group already worked together during the first, second and third semester projects. Our group consists of 2 Czechs, 1 Slovak and 1 Malaysian. Even though the Czech-Slovaks, who are very close due to their historical and cultural background make most part of the group, there we no problems in between the group as we get along very well with each other. Even though Czech and Slovak nationalities are quite close, this is not reflected in the Hofstede’s Dimensions (as can be seen in the picture below).

Czech Republic, Malaysia, Slovakia

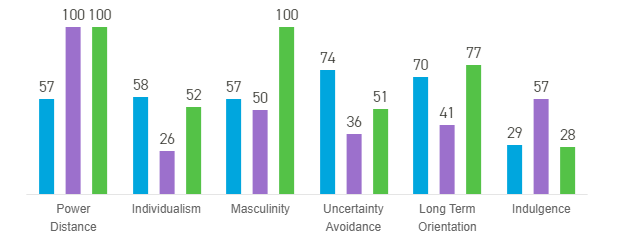


Figure 1: Hofstede’s Dimensions

## Power Distance (Karrtiigehyen and Nicolas Popal)

Power Distance measures inequalities between lower and higher ranked members of a certain hierarchy. (family elders vs. children, high management vs. employees) However, power distance is hard to measure inside of the project work as there are no big differences in hierarchy structure since all the members are equal with each other. Most probable scenario would be a person responsible for the project acting arrogant over others, distributing work without much contribution etc. However, nothing similar happened in our case, as we were all satisfied with our roles in our group.

## Individualism/Collectivism (Karrtiigehyen and Nicolas Popal)

Individualism and Collectivism in project work relates on how people usually work as part of the group. In our case, even though Czechs and Slovaks have mediocre individualism on Hofstede’s Scale, this was not our case as we all are quite social and work well as part of the group, tending more towards Collectivism.

## Masculinity/Femininity and Indulgence/Restraint (Karrtiigehyen and Nicolas Popal)

Masculinity and Femininity represents the values of the group and society. Masculine society strives for success, heroism, and assertiveness, while Feminine strives for cooperation, caring and satisfaction in their work-life balance. Indulgence values enjoying life and having fun, while restraint focuses on social norms and following social standards. In the case of our group, we had a great balance between work and free time, so, we tend to lean more towards Femininity and Indulgence, as we value our time more than a potential success, so the Hofstede’s Dimensions are not represented correctly, especially for the member from Slovakia in case of Femininity where Slovakia leans toward Masculinity, and Czechs and Slovaks in case of Indulgency, where both countries lean toward Restraint, as completely opposed to our group’s nature. This work-life balance is probably inherited from Denmark’s nature as Danes (and generally all Nordics) tend to value their work-life balance more than strive for success, so living in such environment might affect a person to some extent.

## Long/Short Term Orientation (Karrtiigehyen and Nicolas Popal)

Long/Short Term orientation displays if the members of the team are focused on smaller tasks rather than long-term ones. In our case, I would say inexperience causes us to be oriented specifically on smaller tasks, than the long-term ones, so at first glance, it might seem that the Hofstede’s Dimensions are not represented correctly. However, this might not be the real case.

## Uncertainty Avoidance (Karrtiigehyen and Nicolas Popal)

Uncertainty Avoidance measures the amount of precautions made to handle unexpected situations, adapting to them, and preventing them. In our case, we did not encounter many unexpected situations, so it is very hard to estimate whether we represent the Hofstede’s Dimensions correctly.

# Project Initiation (Karrtiigehyen and Nicolas Popal)

## Selection of Topic (Karrtiigehyen and Nicolas Popal)

When the time had come to choose the project topic, we had trouble with deciding what system we wanted to develop. There were some requirements for the project that we were about to plan and construct. For example, it had to be a heterogenous system, using a distributed architecture, and using sockets and web services. Other than those requirements, we were allowed to choose any topic that we wanted to work with.

After a long debate, three project proposals were selected, a Hospital System, Food Tinder, and Airline Reservation System. The Hospital System was a system for keeping medical records about patients. The Food Tinder was a system where people could meet by posting and liking pictures of food. The Airline Reservation System is a system where people can buy tickets for flights and also manage the flights. The Hospital System was very interesting for us all, but only a crude representation would have been made by us since none of us are experienced in how a hospital system functions. The Food Tinder was by far the most unique proposal, but it was a half-baked idea and none of us had a full realization of how the system would function. In the end, the Airline Reservation System was chosen because we felt like we understood how the an airline reservation system should function, given that we implemented a Library System where people can reserve and borrow books for SEP2. All of us have also bought tickets online through airline reservation systems before such as Wizz Air, giving us experience on how the interface for the user should be.

These conclusions proved to be true after consulting these proposals with our supervisors, who assured us that the Airline Reservation System is the best option out of the three, and it was consequently selected as our main topic for the third semester project.

## Formation of Group (Karrtiigehyen and Nicolas Popal)

All four of us have worked in the previous two semester projects together. In the previous semester project, there was a fifth group member, but we chose to work with only the four of us this semester as we felt like we could work very well within the four of us.

# Project Description (Karrtiigehyen and Nicolas Popal)

Text

# Project Execution (Karrtiigehyen, Nicolas Popal and Patrik Horny)

## Project Development and Methods (Karrtiigehyen, Nicolas Popal and Patrik Horny)

Our “personal’’ meetings were held on a Discord which was a great help, since sharing screen was far more practical than constantly sending files to each other.

As our main framework we have used SCRUM together with a web application called Jira, which helped us to be on a track with sprints and project backlog. We did discuss on whether we should use SCRUM or Kanban to manage the work for the project. Ultimately, we settled for SCRUM since we learned it the previous semester and have had experience working with SCRUM.

Git.

## SCRUM (Karrtiigehyen, Nicolas Popal and Patrik Horny)

Scrum proved to be a handy framework during the work on second semester project. At the beginning of each sprint, we held a discussion of what do we want to put into the sprint, what are the main points to put attention to and how much time it is going to take us to do it. In Sprint Retrospective, we realized our mistakes and put into consideration what needs to be fixed and improved.

We formed a group where we set a role for each member of the group with a condition to change roles if somebody does not like his role.

The roles were split as seen below:

* Patrik – Scrum Master – his role was to manage the whole development team and overall making sure that the whole process of making the project is going smoothly. This includes setting up the meetings, managing project timeline and making sure that the team members have no problem with their given User Story.
* Kartiigehyen – Product owner – he was responsible for setting up a Product Backlog and making sure that it was fully understood.
* All members of the group – Development Team.

It was agreed on that the length of the sprint was set to be 3 days with the amount of work done per day set to be 8 hours / member.

### Product Backlog (Patrik Horny)

Text

### Sprint Planning (Patrik Horny)

Text

### Sprint Backlog (Patrik Horny)

Text

### Burndown Chart (Patrik Horny)

Text

### Sprint Review and Retrospective (Patrik Horny)

Text

### Daily SCRUM (Patrik Horny)

Text

## Unified Process (Karrtiigehyen, Nicolas Popal and Patrik Horny)

Since SCRUM had no defined development techniques, Unified Process was used. It was used in each sprint, where we would go through the Elaboration, Construction and Transition phases. This gave us a guideline of what should be done in each sprint. Because of the unified process, the functional requirements that were supposed to be done in the sprints were working with no hiccups, and documentation of the implementation of the functional requirements were also done.