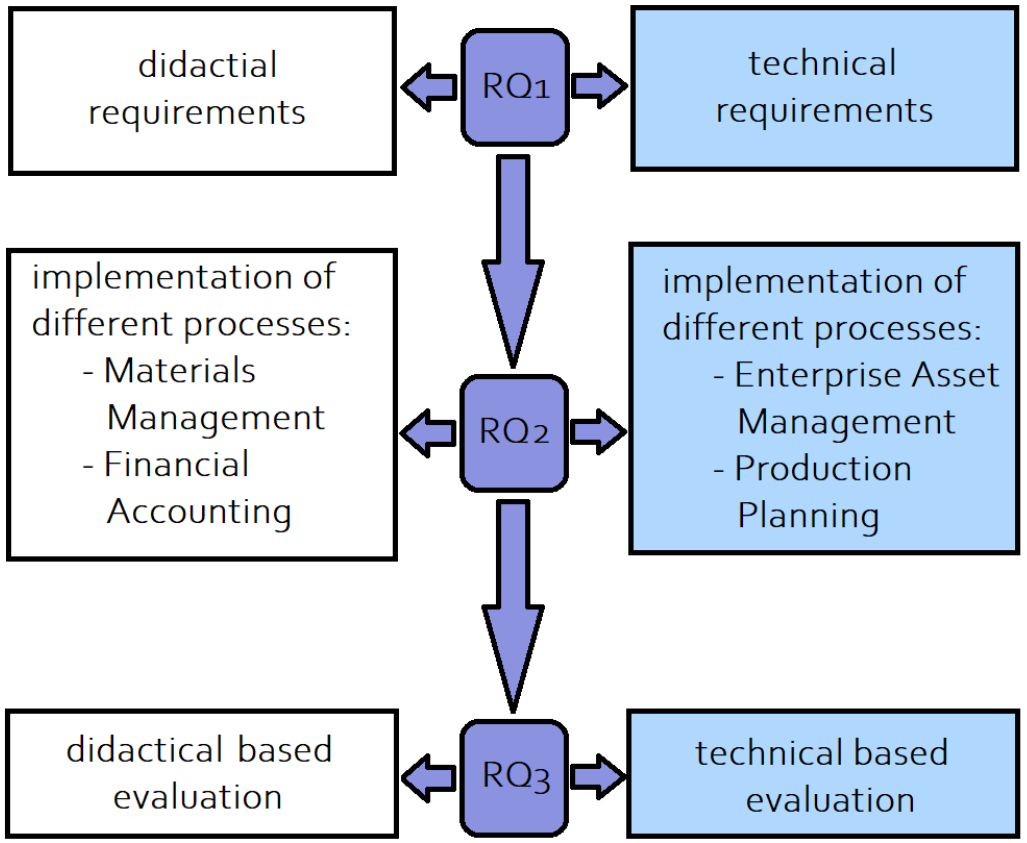
Abbildungen & Tabellen

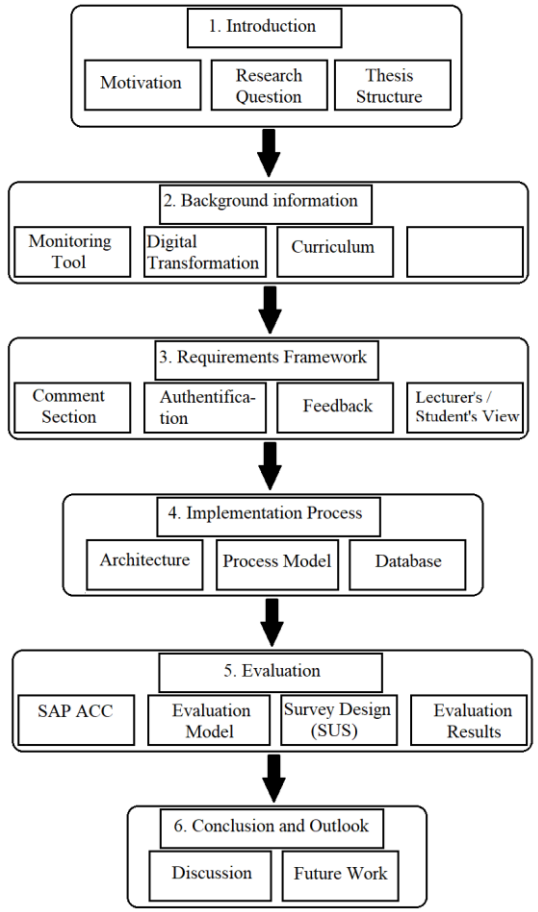
Furkan Gürbüz

03703701

Differentiation



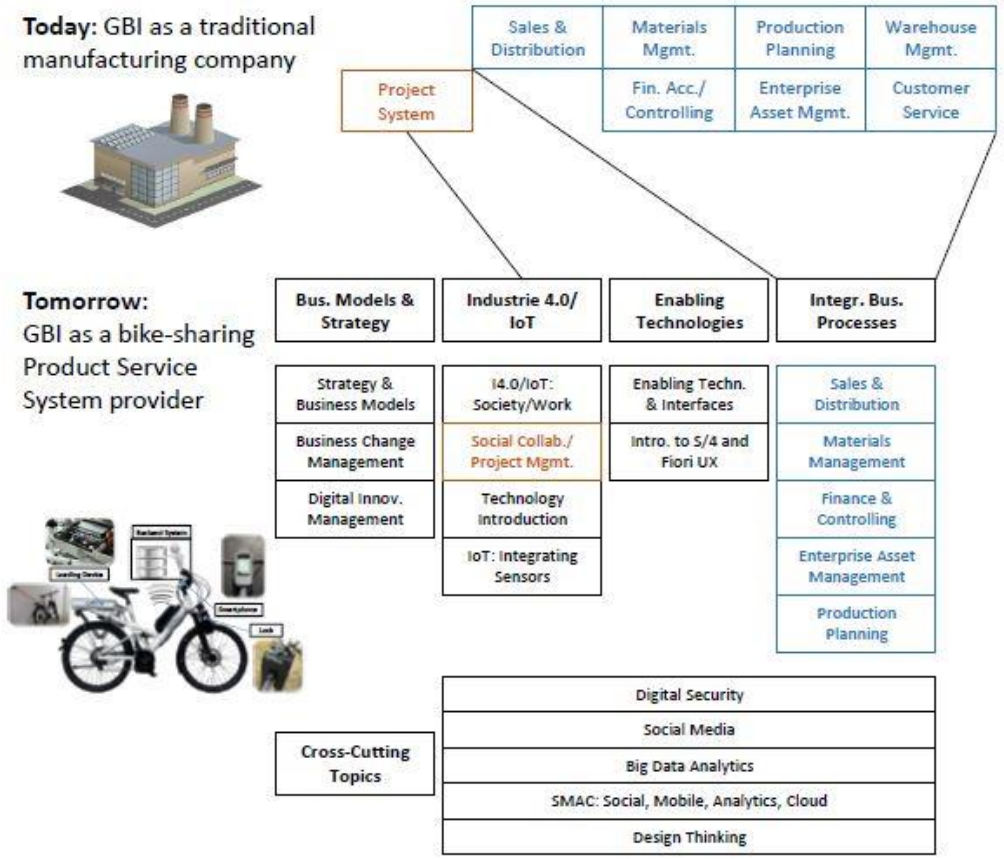
Thesis Structure



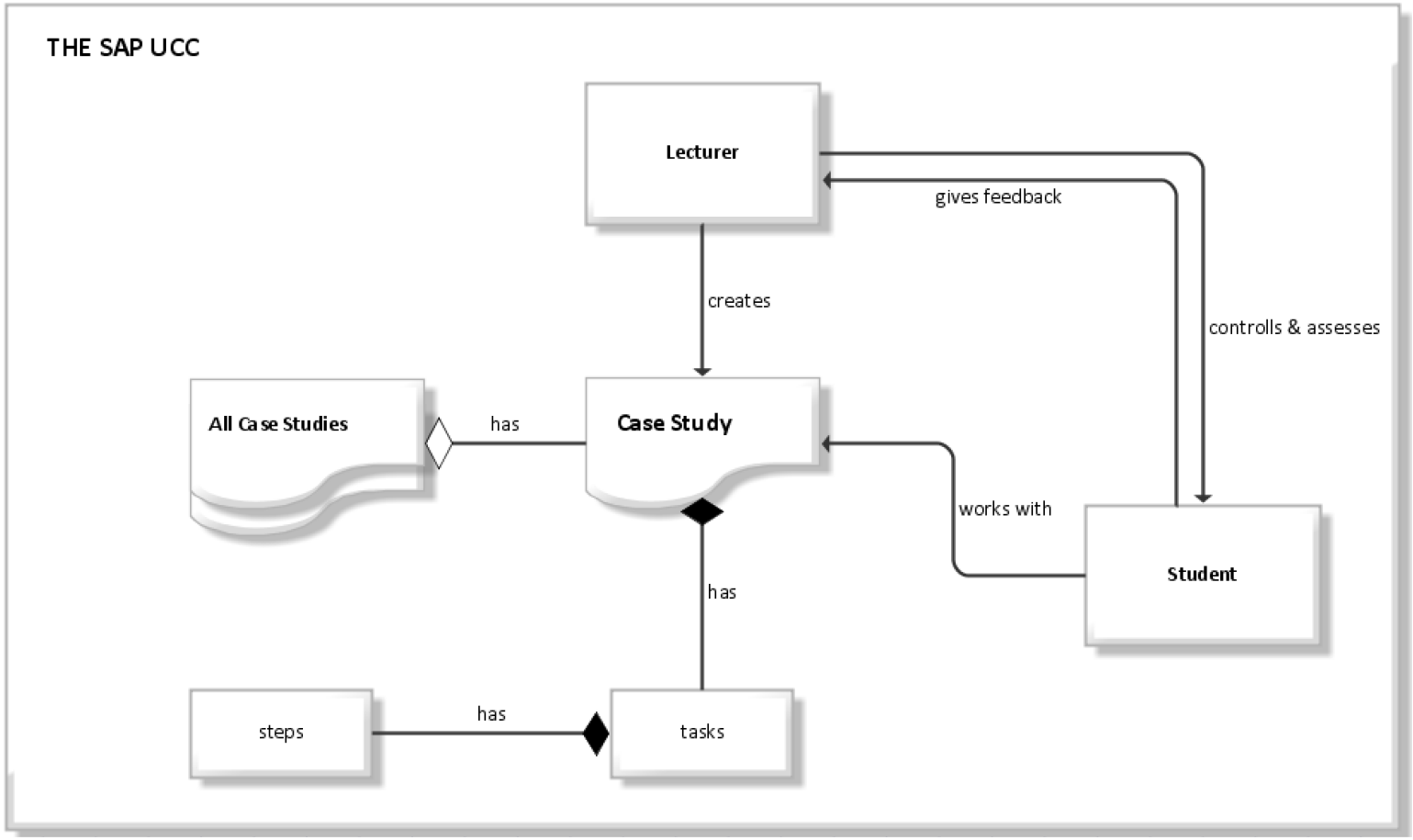
Literature Review Methodology

Actions	Results
Review Scope Define the databases to be queried	IEEE Xplore Digital Library, ACM Digital Library, AISeL, Scopus
Topic Conceptualization Only consider journal and conference articles using 2 queries.	479 total papers have been found
Literature Review Scanning of titles and abstracts	35 papers are considered relevant
Literature Analysis and Synthesis Reading the remaining papers	10 papers contain statements that can be transformed into requirements
Research Agenda Formulation requirements	24 requirements of 6 categories

Modules of Global Bike Company



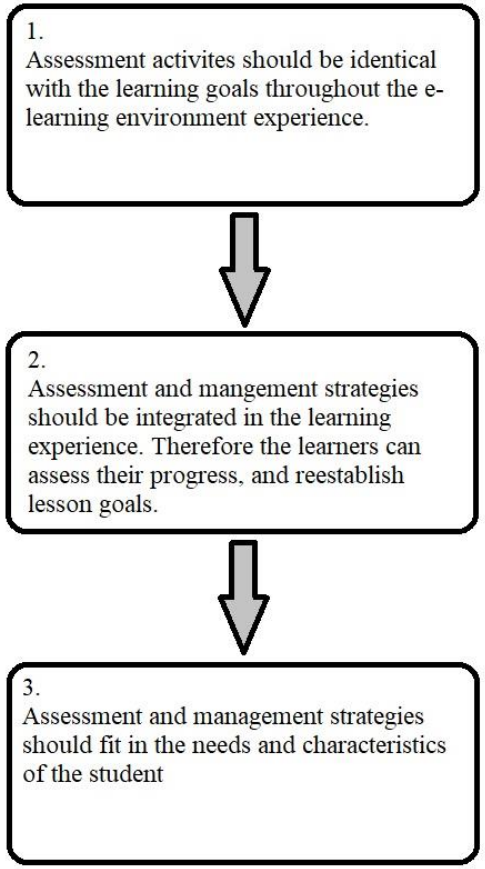
SAP UCC Case Studies



Use Case Organizational 1

Use Case	Login into the system (UC_OR1)		
Goal	Users can log in to the system and the system can detect the currently logged-in user.		
Preconditions	The User knows his/her login details		
Actor(s)	Lecturer/Student		
Main Success Scenario	1.	Lecturer/Student	types in the username
	2.	Lecturer/Student	types in the password
	3.	System	checks input values with the data values saved in the database: **If** input values are **true** redirects to the landing page; **Else** give out an error message
	4. Case: **false**	Lecturer/Student	starts from step 1 again.
	4. Case: **true**	System	checks the login details: **If** the username starts with GBS, then redirect to the student landing page; **Else** redirect to the lecturer landing page

Guidelines for e-learning assessment



Use Case Default 1

Use Case	The student selects a case study (UC_D1)		
Goal	The student wants to select the desired case study		
Preconditions	The student opened the website and logged himself/herself in (UC_OR1).		
Actor(s)	Student		
Main Success Scenario	1.	Student	clicks on dropbox
	2.	System	showcases hardcoded case study values
	3.	Student	clicks on desired case study
	4.	Student	clicks on arrow
	5.	System	checks entry values: **If <u>true</u>** redirect to the next page; **Else** give out an error message

Use Case Default 2

Use Case	The student sees the data (UC_D2)		
Goal	The Student wants to see the data of the selected case study (which he/she selected in UC_D1)		
Preconditions	The Student has done the actions of UC_D1, and the if case was identified as true by the system!		
Actor(s)	Student		
Main Success Scenario	1.	System	loads data from backend from specific student and case study
	2	Student	scrolls through the data and assesses his results

Use Case Admin 1

Use Case	Lecturer Selection of Student & Case Study (UC_A1)		
Goal	The Lecturer wants to select a specific student within a specific case study		
Preconditions	The Lecturer opened the website and logged himself/herself in (UC_OR1).		
Actor(s)	Lecturer		
Main Success Scenario	1.	Lecturer	clicks on the first dropbox
	2.	System	loads data from the backend
	3.	Lecturer	clicks on desired student ID
	4.	Lecturer	clicks on the second dropbox
	5.	System	showcases hardcoded case study values
	6.	Lecturer	clicks on desired case study
	7.	Lecturer	clicks on the arrow button to go to the next page
	7.	System	checks entry values: **If <u>true</u>** redirect to the next page; **Else** give out an error message

Use Case Admin 2

Use Case	Lecturer visualized the data (UC_A2)		
Goal	The Lecturer wants to see the data of the selected student and case study (which he selected in UC_A1)		
Preconditions	The Lecturer has done the actions of UC_A1, and the if case was identified as true by the system!		
Actor(s)	Lecturer		
Main Success Scenario	1.	System	loads data from backend from specific student and case study
	2	Lecturer	scrolls through the data and monitors the results

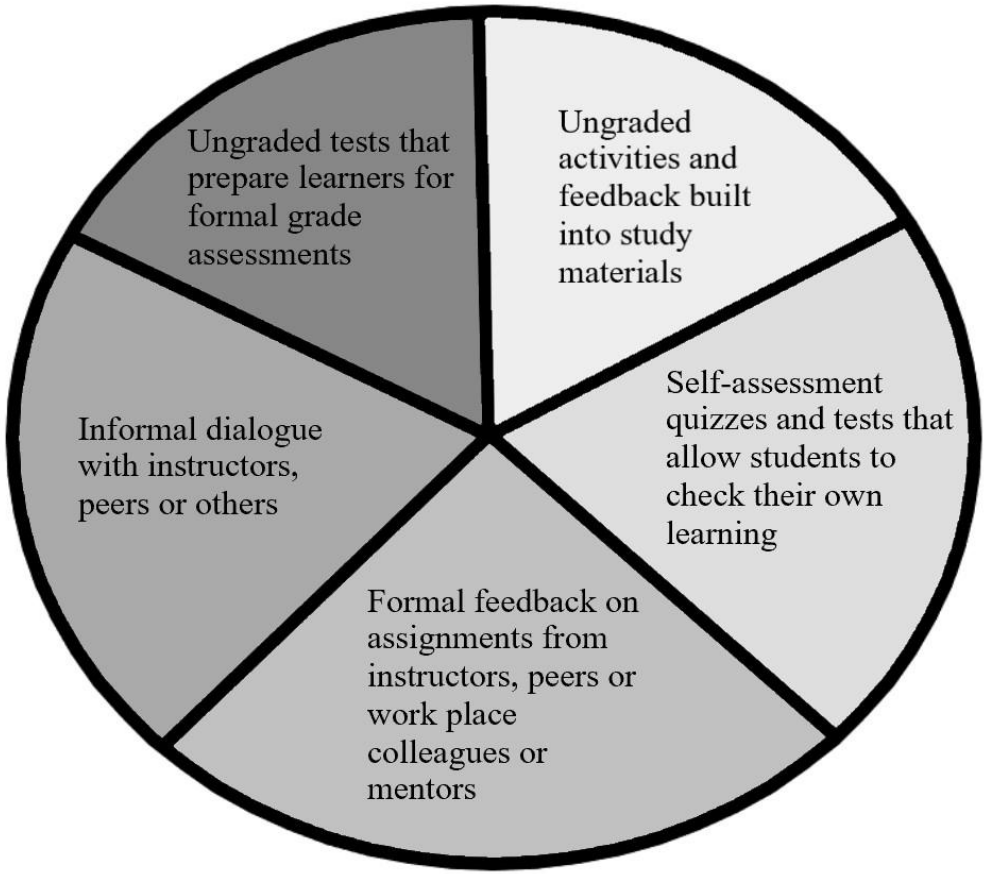
Use Case Admin 3

Use Case	Comment functionality for the lecturer (UC_CA1)		
Goal	The Lecturer wants to write a comment for the student within a case study, which were selected in UC_A1		
Preconditions	The Lecturer has already done UC_A1		
Actor(s)	Lecturer		
Main Success Scenario	1.	Lecturer	can write a comment on the student's task performance, or activity behavior, or learning progress for the selected case study and student
	2.	Lecturer	clicks on the comment section field and types in the comment
	3.	Lecturer	clicks on the send button
	4.	System	saves the typed-in comment into the database, with the specific user id and case study id.
	5.	System	**If** an error occurred during step 4, then the error message box is visualized; **Else** success message box is visualized

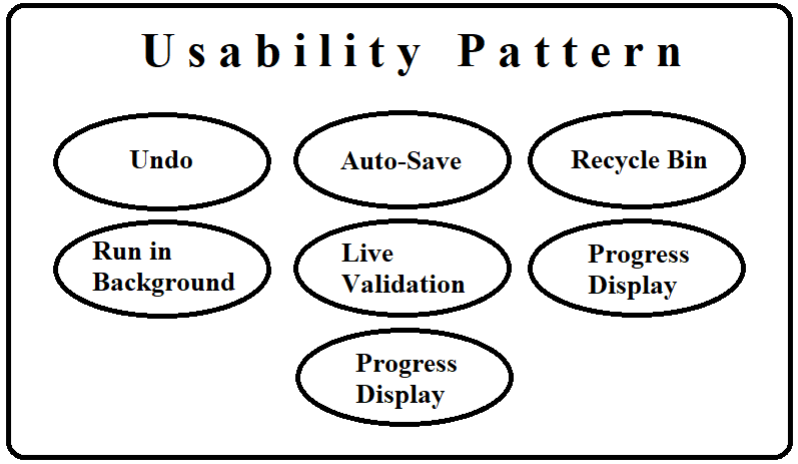
Use Case Admin 4

Use Case	Comment functionality for the student (UC_CD1)		
Goal	The Student wants to write a comment for the lecturer within a case study, which were selected in UC_D1		
Preconditions	The Student has already done UC_D1		
Actor(s)	Student		
Main Success Scenario	1.	Student	clicks on the comment section field and types in the comment
	2.	Student	Clicks on the send button.
	3.	System	saves the typed-in comment into the database, with the specific case study id.
	4.	System	**If** an error occurred during step 3, then the error message box is visualized; **Else** success message box is visualized

Assessment categories



Usability Pattern



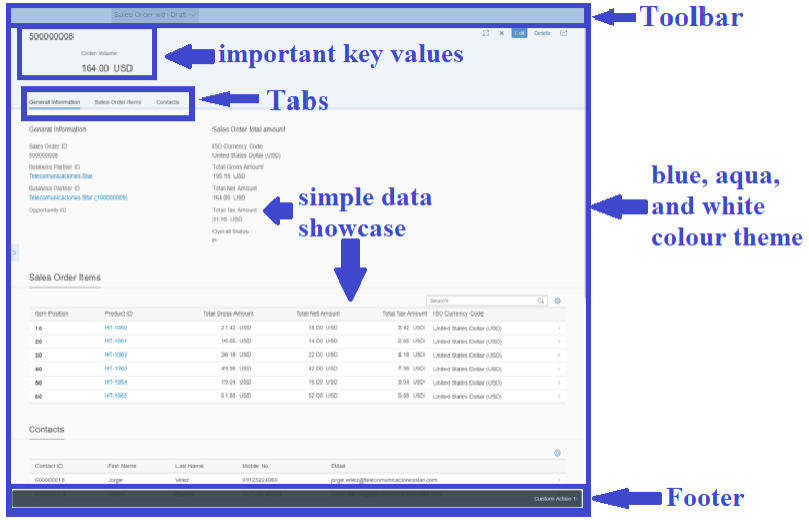
Requirements from literature review

Requirement Identifier	Requirement Description
/OR01/ Access control	The system should differentiate between Admin and Default user, who has different levels of restrictions and adapt the UI accordingly
/SoAA01/ Fetching data of individual default user	The admin should be able to fetch students data from the database with a dialog (calling students id)
/SoAA02/ Fetching data of case study	The admin should be able to fetch data of selected case study from a drop-down menu
/SoAA03/ Visibility of data	The admin should be able to confirm and graphically see the data by pressing a button
/SoAA04/ Deletion of Selection	Admin can delete the entries (UI based) from SoAA01 and SoAA02
/SoAA05/ Activity Control	The admin can monitor the activity of the student. Therefore every SoAD needs to have a unique identifier, which needs to be saved in the database.

/CS01/ Admin Comment	The admin should be able to comment inside a comment section on the student's solution (asynchronous interaction).
/CS02/ Default User Comment	The default user should be able to respond to the comment of the admin or write a new comment to the admin (asynchronous interaction).
/CS03/ Visibility	The Comments inside the comment section are only visible for concerned users
/SoAD01/ Selecting Case Studies	The default user should be able to select a specific case study from a drop-down menu.
/SoAD02/ Visibility of Selection	The default user should be able to confirm and graphically see his/her results by pressing a button.
/SoAD03/ Delete selection	The default user should be able to delete (UI-based) the selection of SoAD01.
/SoAD04/ Overall Success rate	The default user should be able to see the overall success/failure rate by clicking on a button.

/FB01/ Admin feedback	the admin should be able to give a total grade/points for the selected default user within the whole case study. This feedback should be only visible to the concerned user. Therefore the points/grade has to be saved with the default users id
/FB02/ Default User feedback	The default user should have once permission to give feedback to the admin for a specific case study. This feedback should be sent (and saved in the database) to the admin's feedback page
/FB03/ Visibility feedback page (Admin)	The admin should be able to see all the feedback gathered on the feedback page (send by FB02).
/FB04/ Visibility feedback page (Default user)	The default user just should see one feedback for each case study on his/her feedback page (from FB01).
/NF07/ Usability	The user should be able to navigate throughout the tool within 3 steps

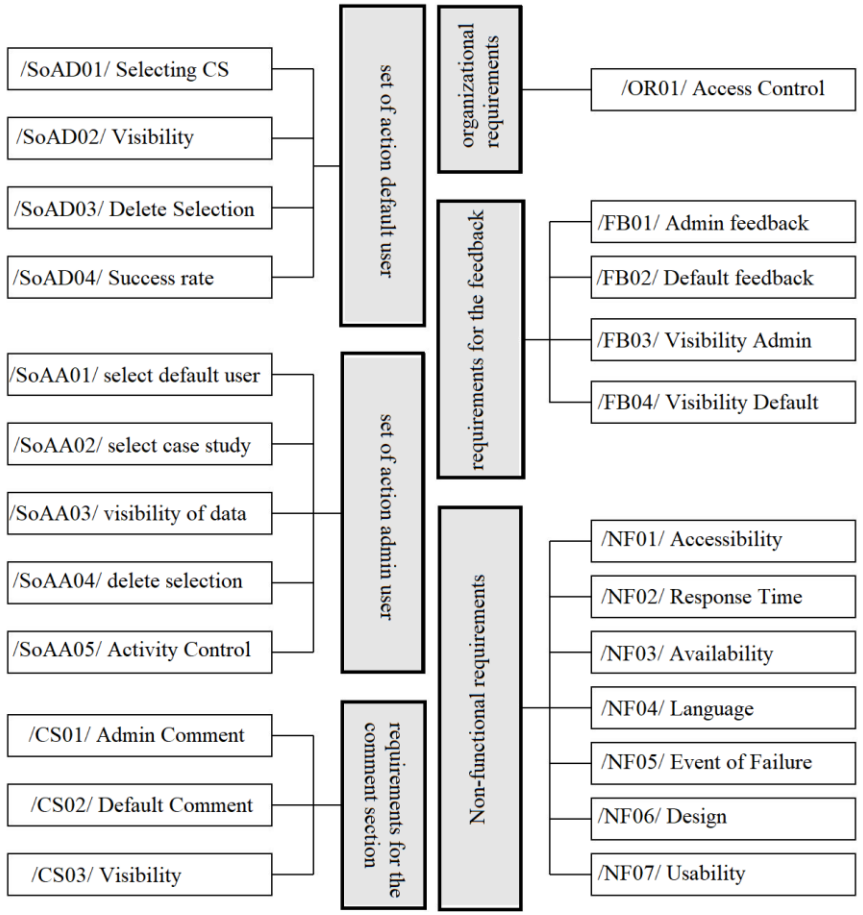
Basic Fiori UI Sample



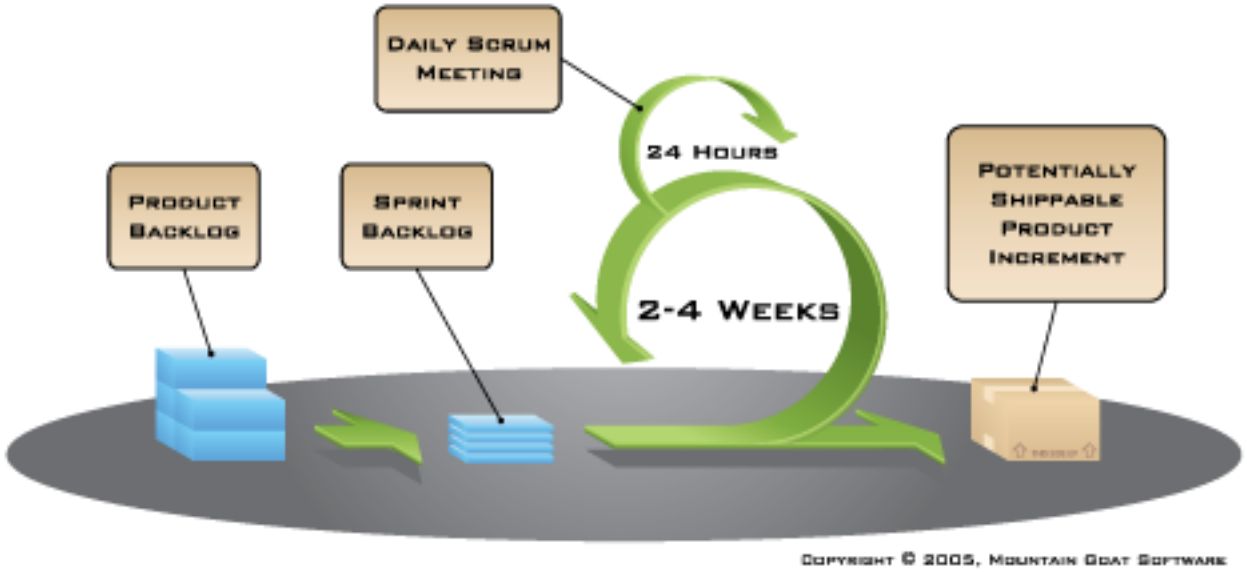
Requirements from existing solutions

Requirement Identifier	Requirement Description
/NF01/ Accessibility	The tool should be accessible with web browsers (Firefox, Chrome, etc.)
/NF02/ Response Time	The average response time should be less than 5 seconds
/NF03/ Availability	The tool should be available 99% times
/NF04/ Language	The tool should be in German and English
/NF05/ Event of Failure	When the tool crashes, it should be able to back up to its previous state
/NF06/ Design	The tool should maintain the overall design concept of SAP FIORI

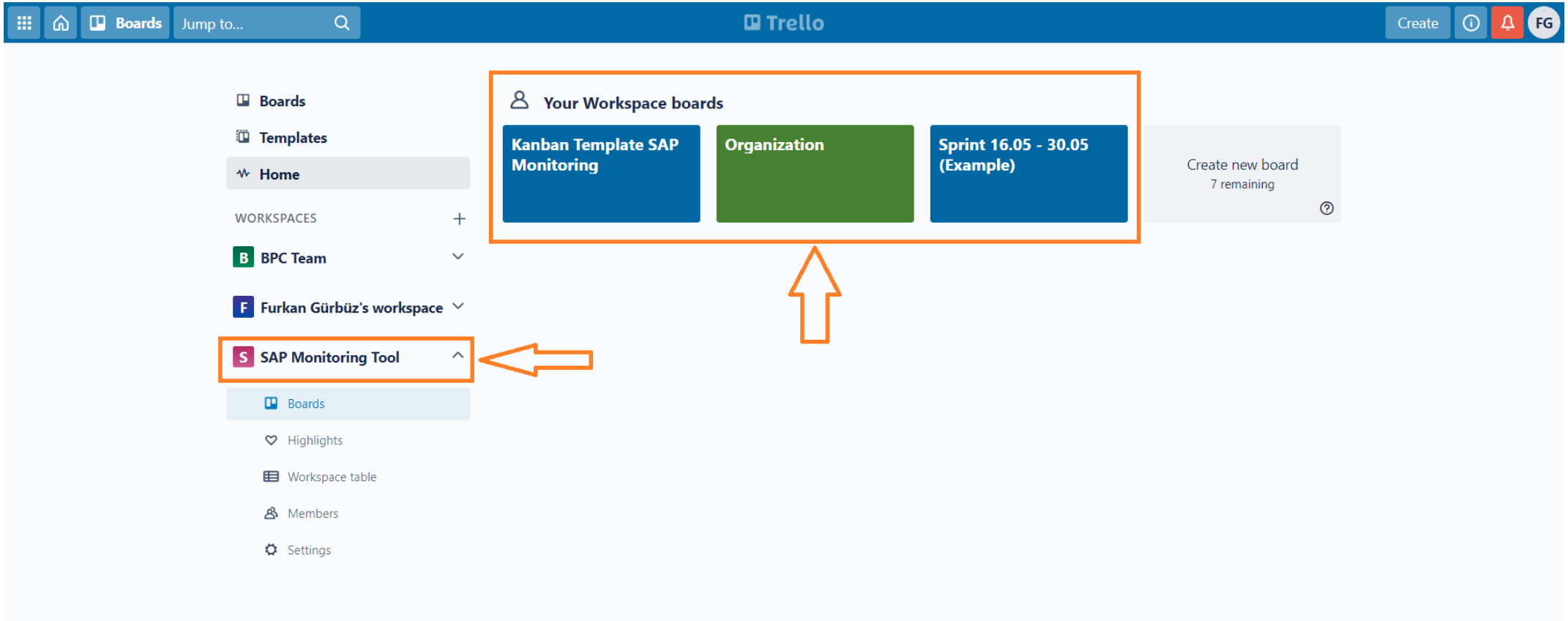
Requirement Results



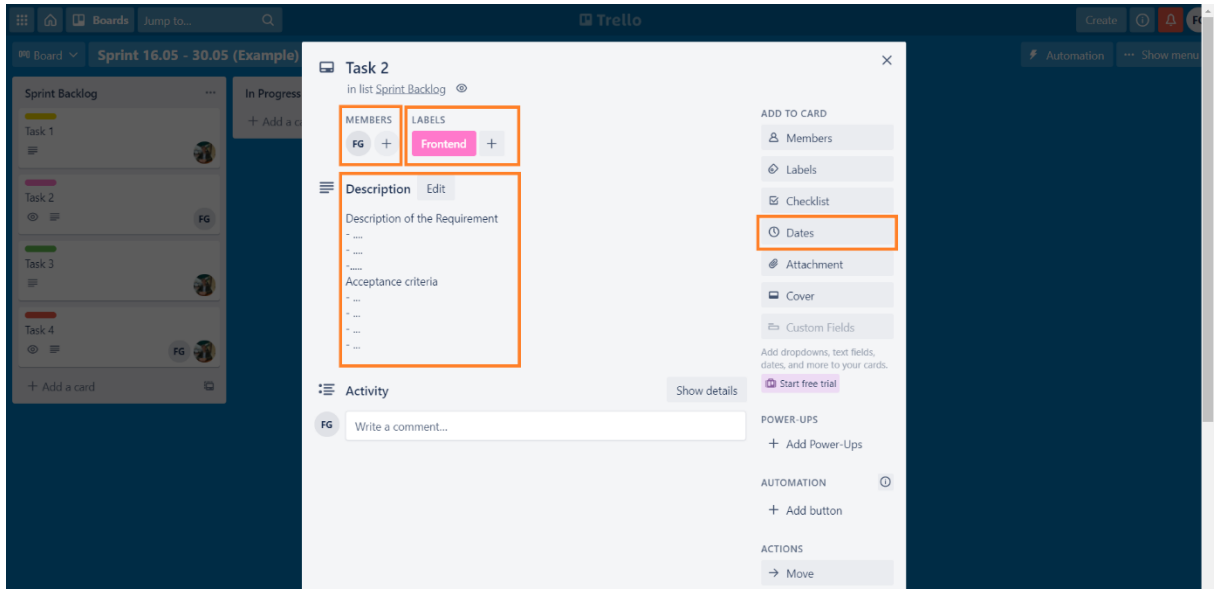
Typical Scrum lifecycle model



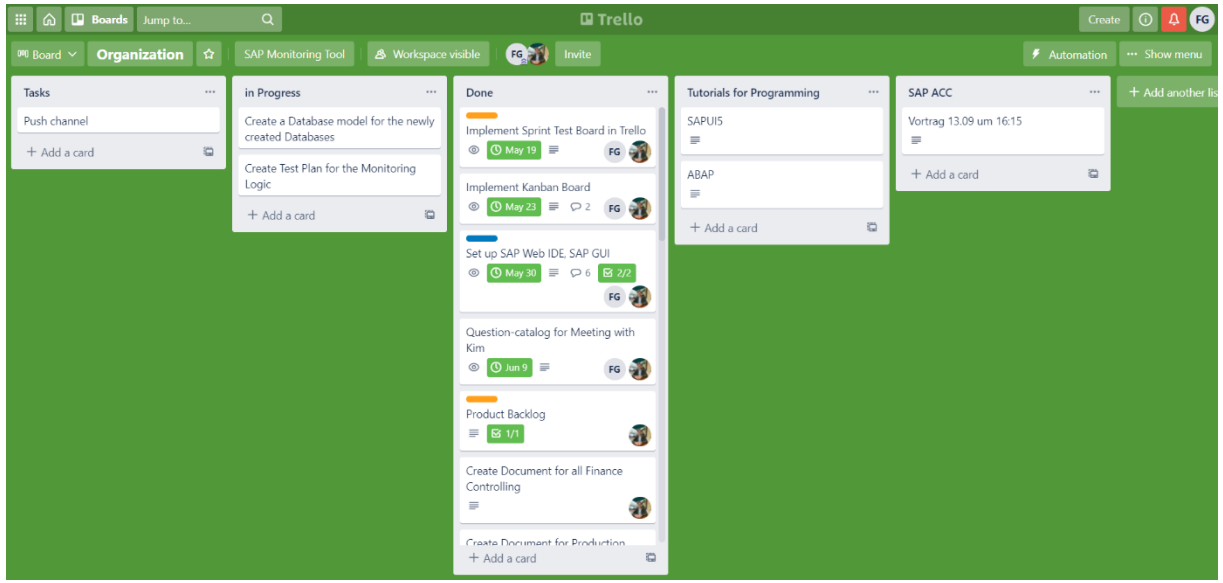
Trello Workspace



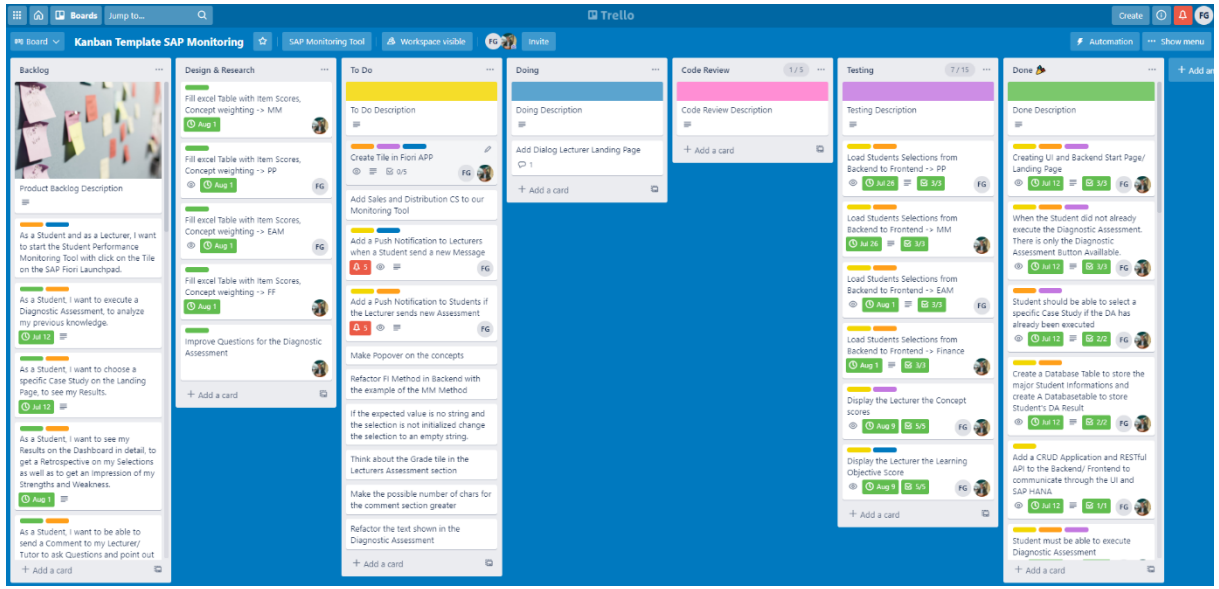
Trello Task description



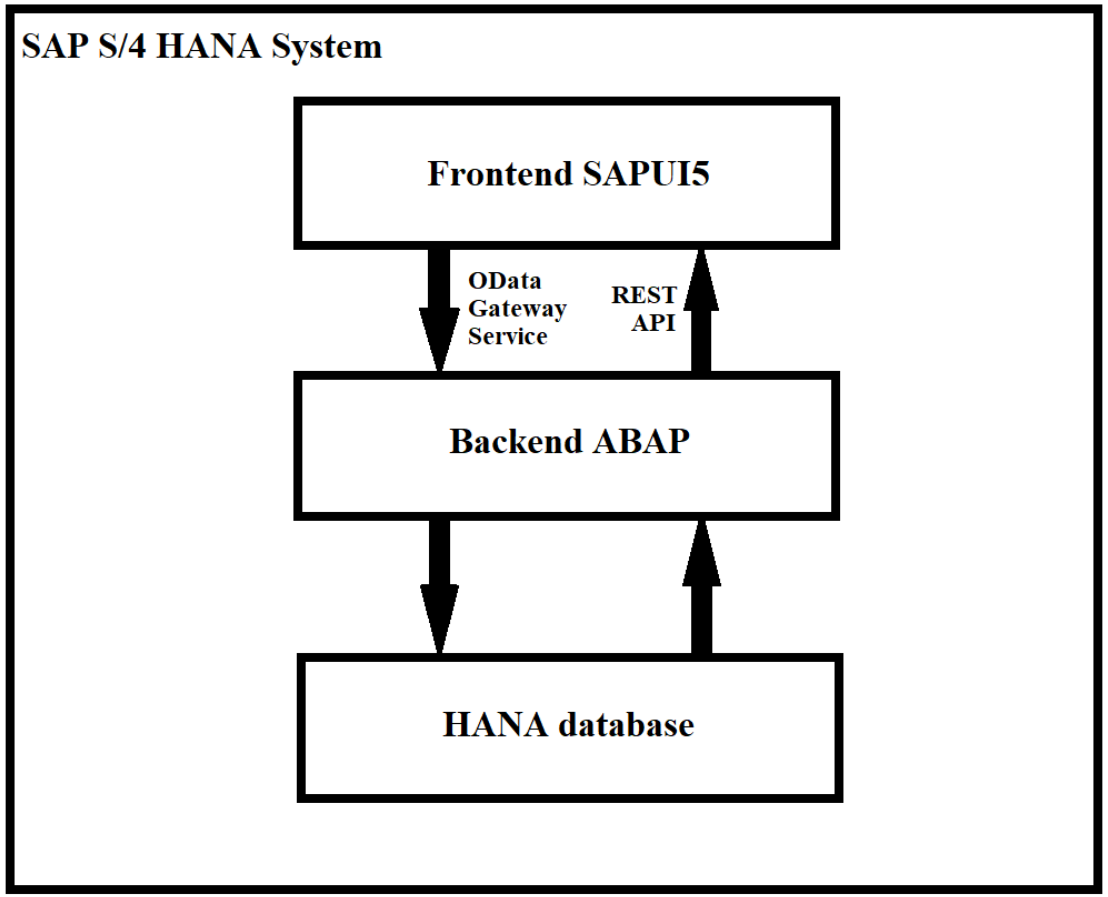
Trello Organizational Board



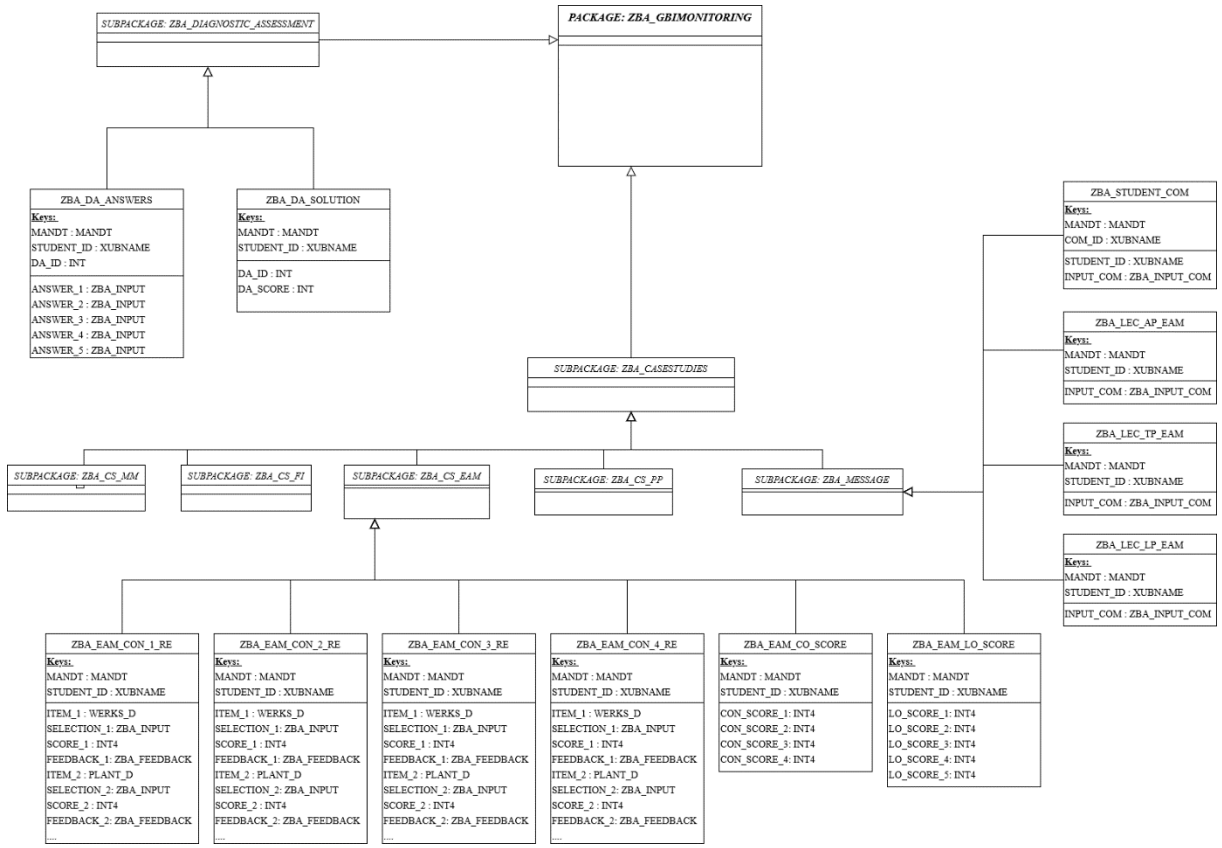
Trello Main Kanban Board



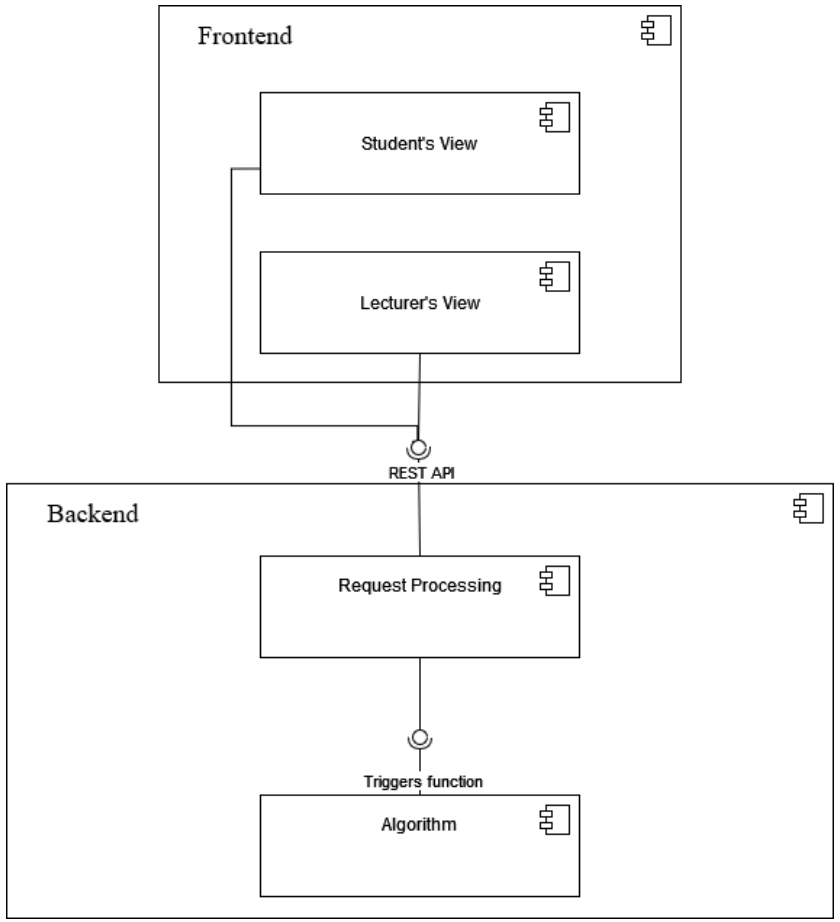
SAP S/4 Hana System



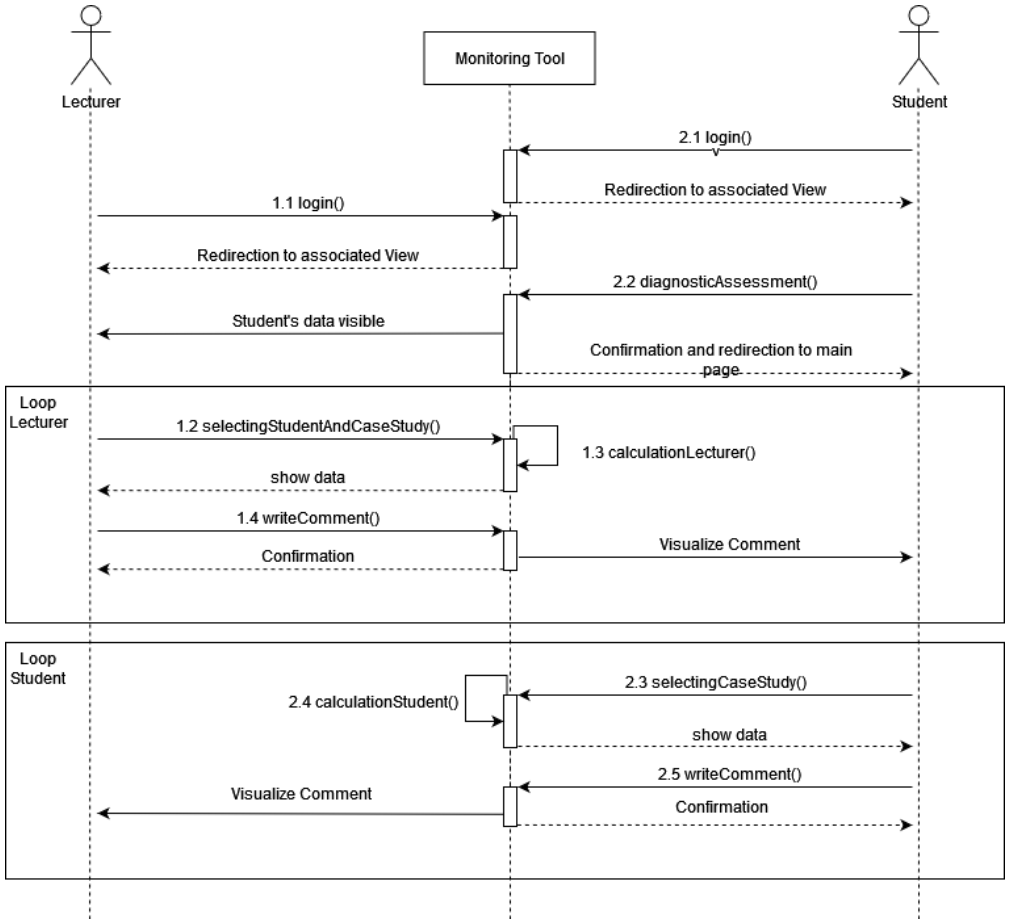
Conceptual UML data model



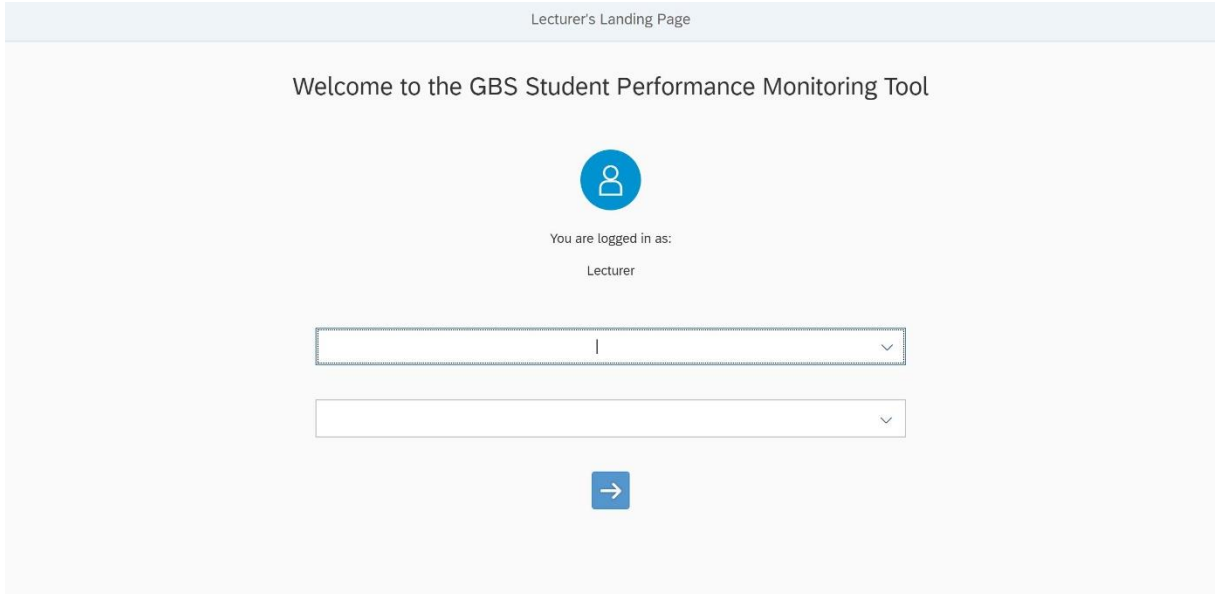
Component diagram



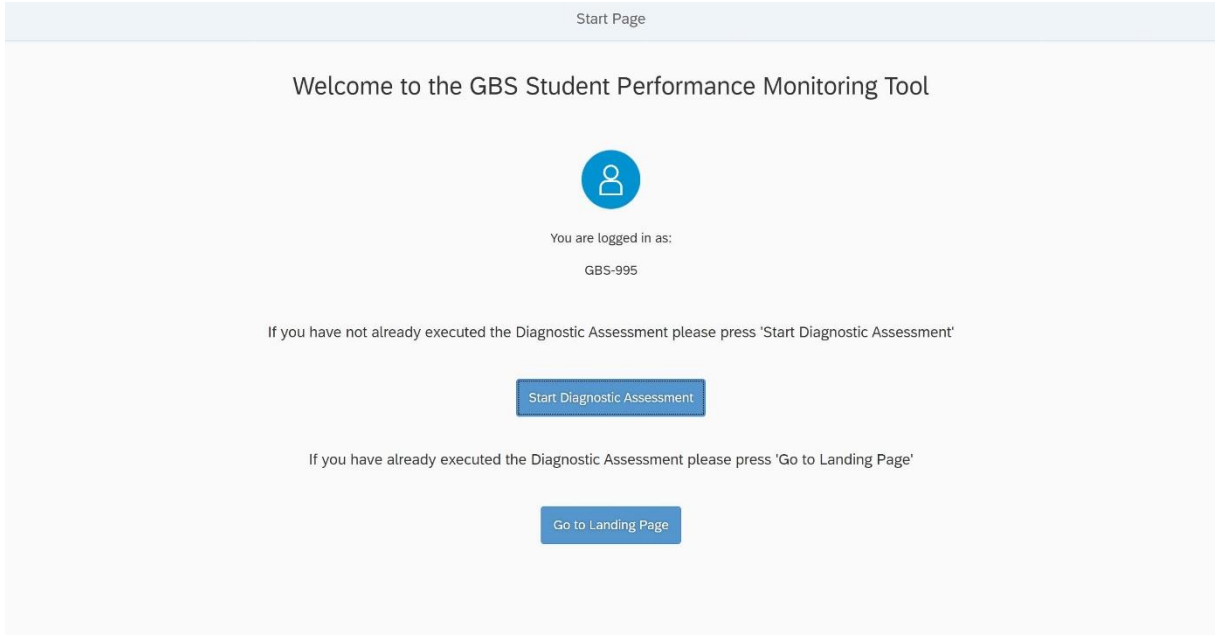
Sequence diagram



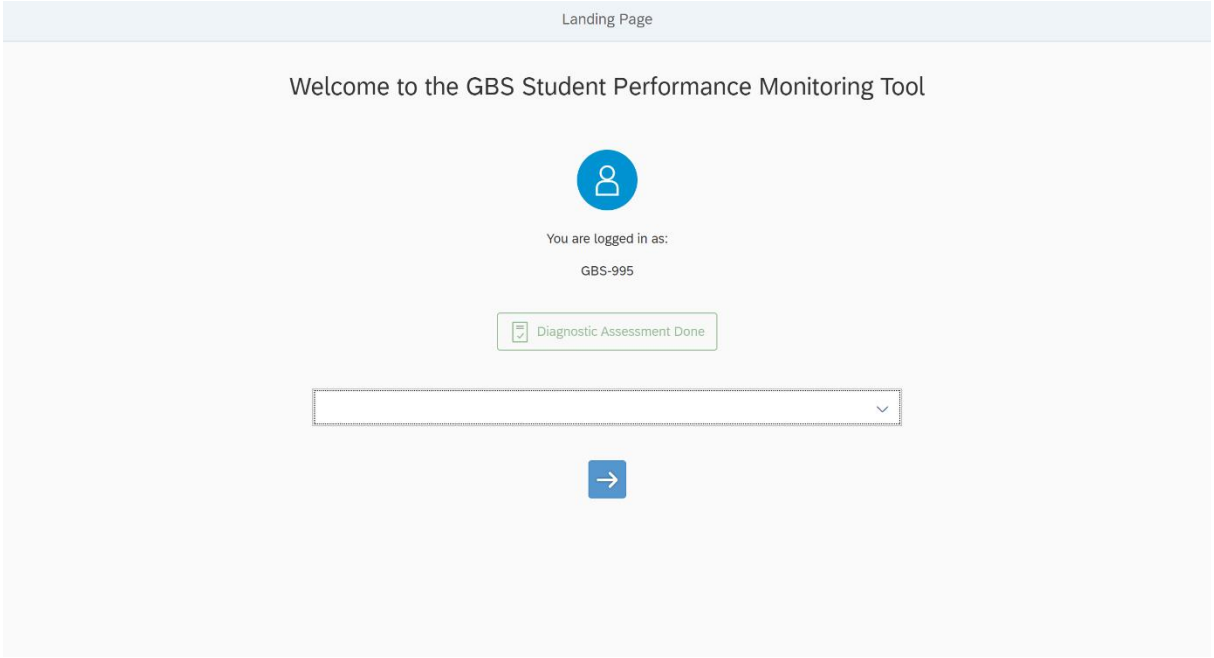
Lecturer Landing Page



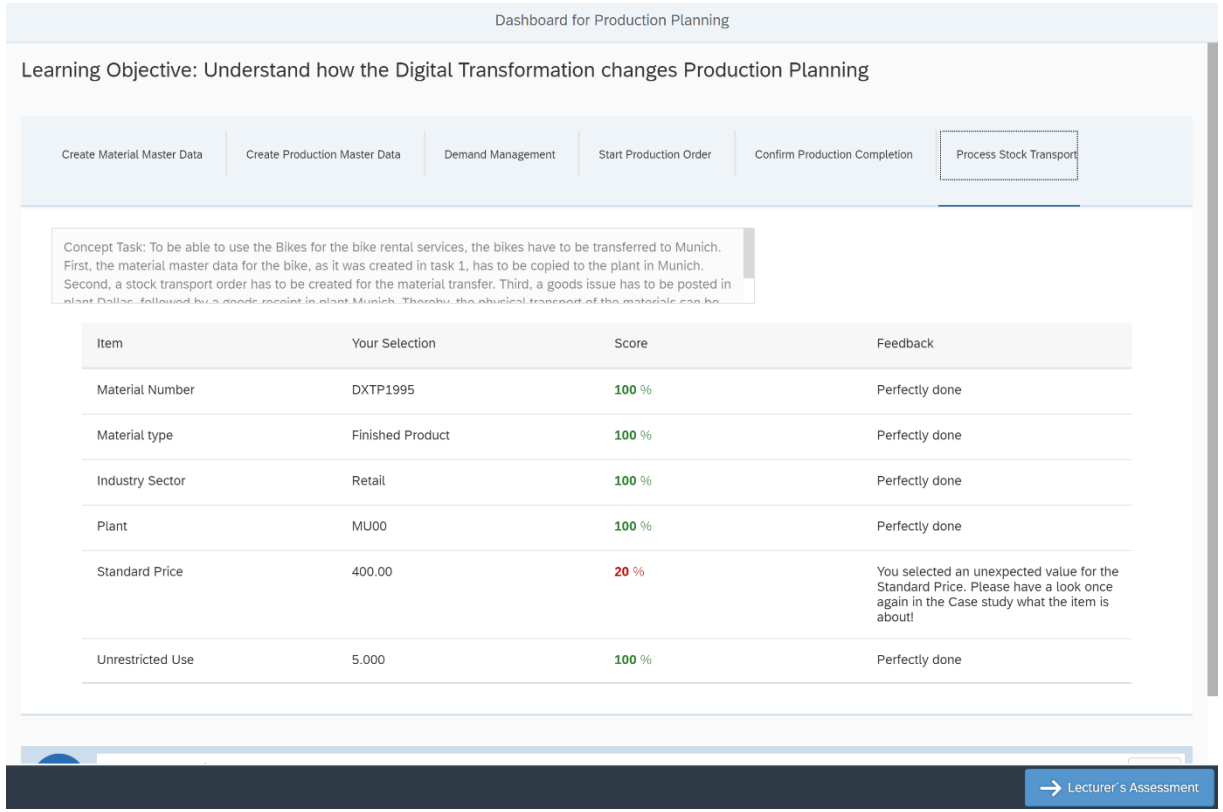
Student Pre-landing Page



Student Landing Page

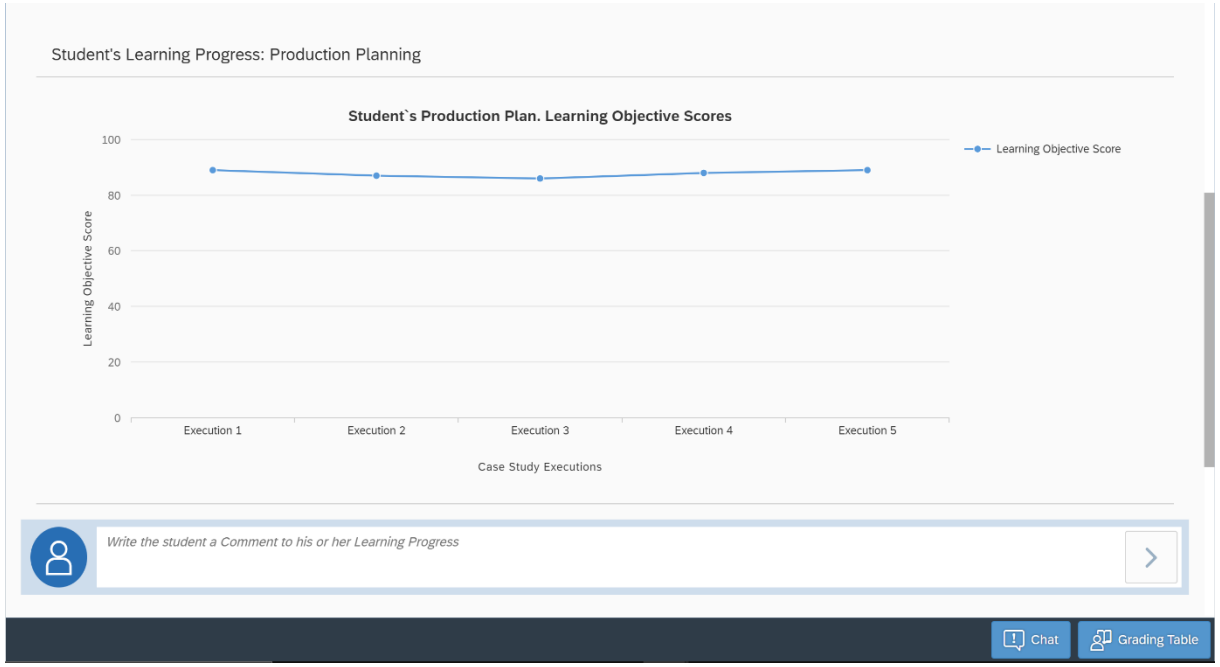


Student Dashboard for Production Planning

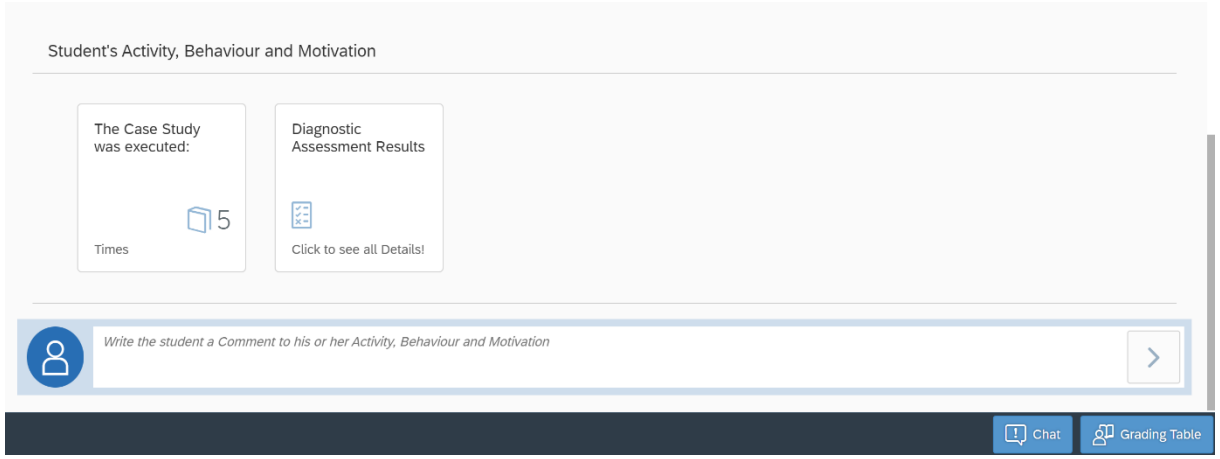


Lecturer Dashboard for Production Planning

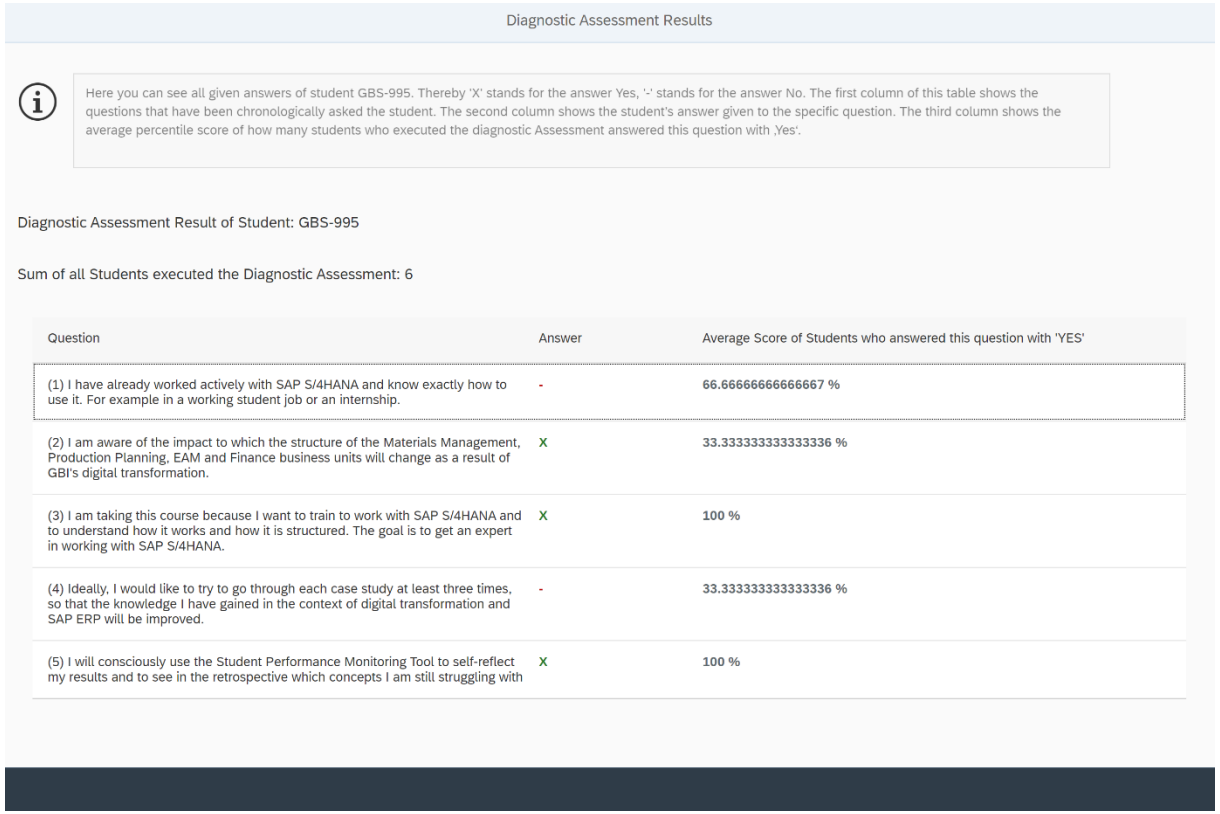
Dashboard for Production Planning 2



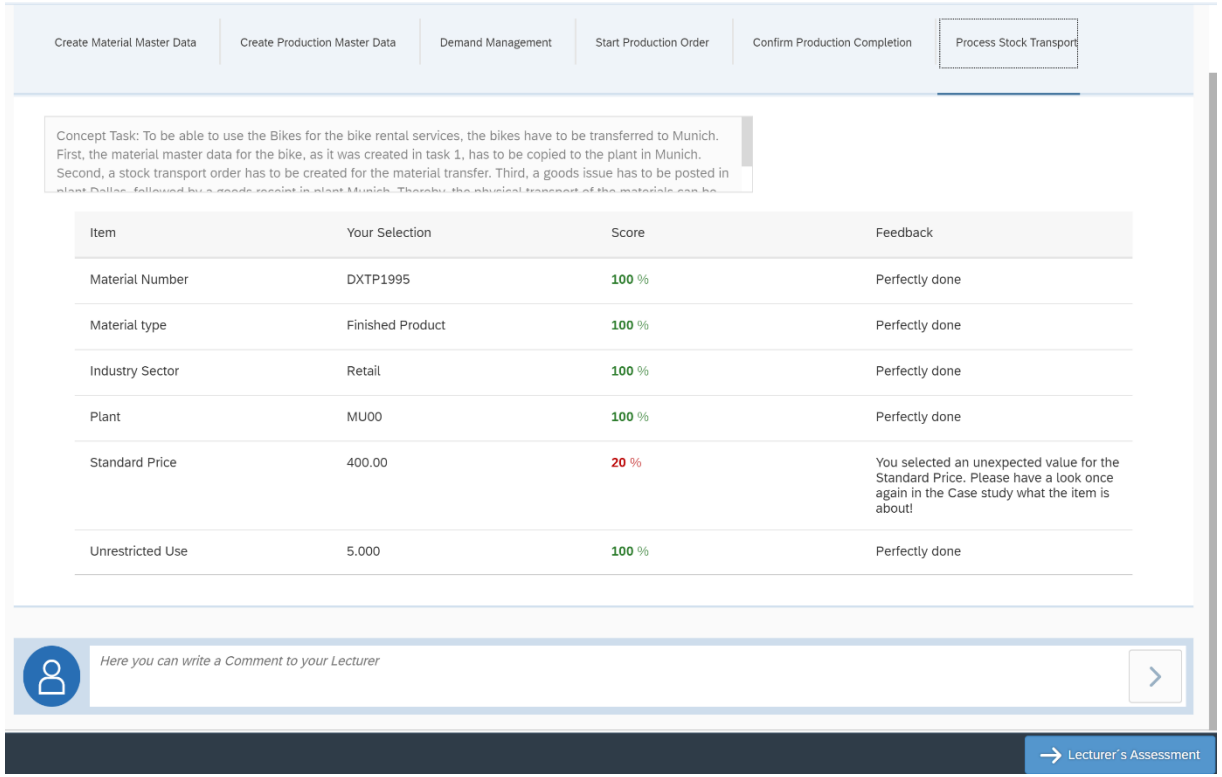
Dashboard for Production Planning 3



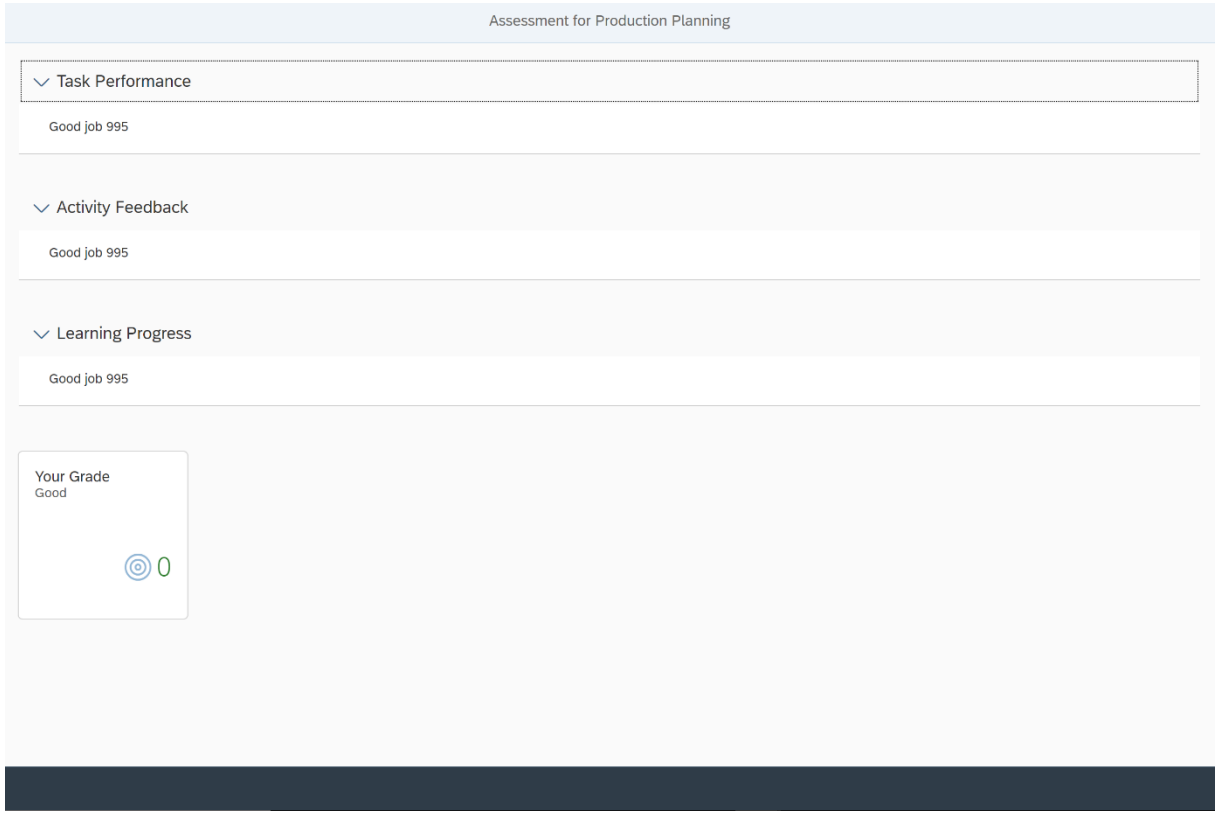
Diagnostic Assessment Results Page



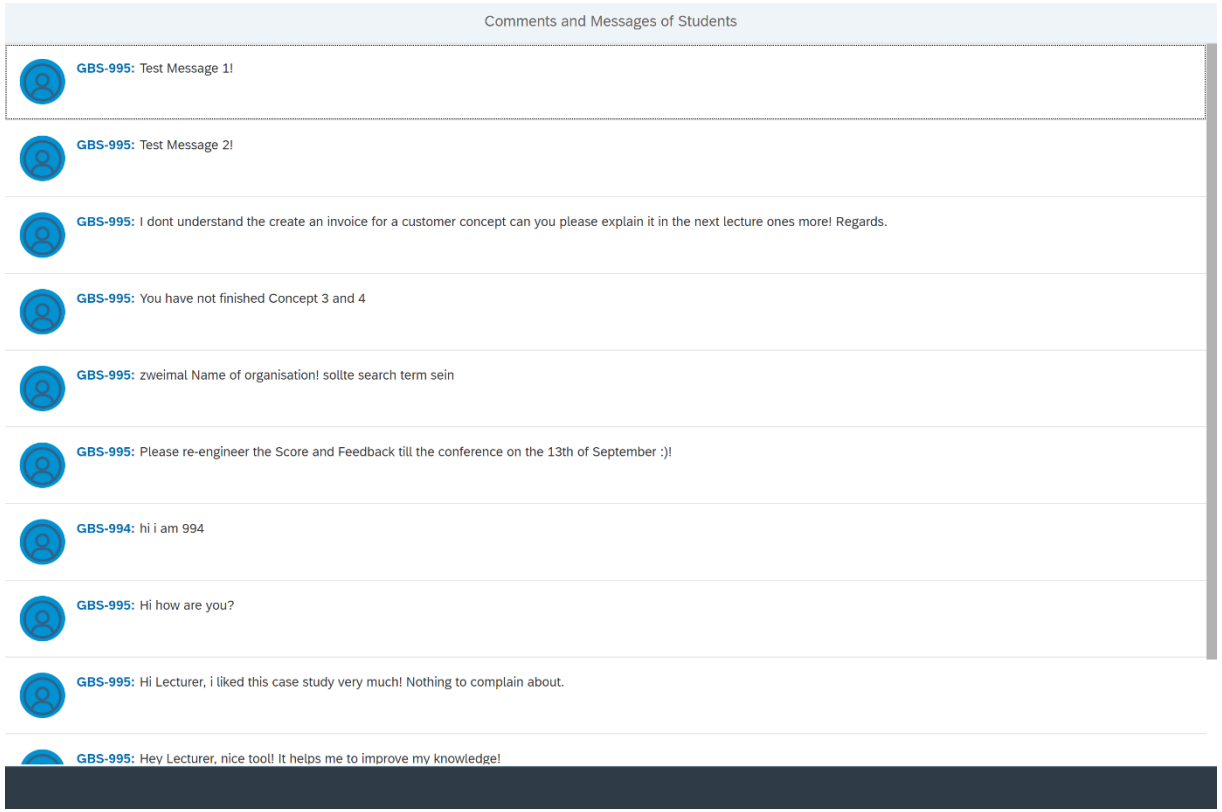
Comment functionality Student



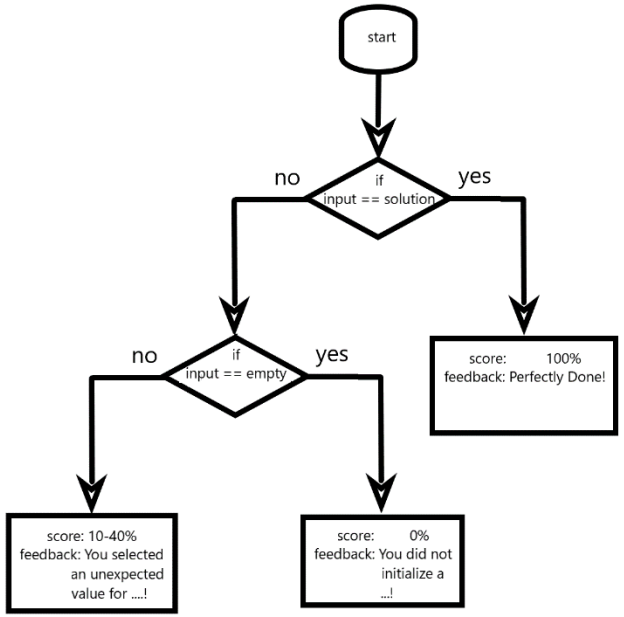
Lecturer‘s assessment Page



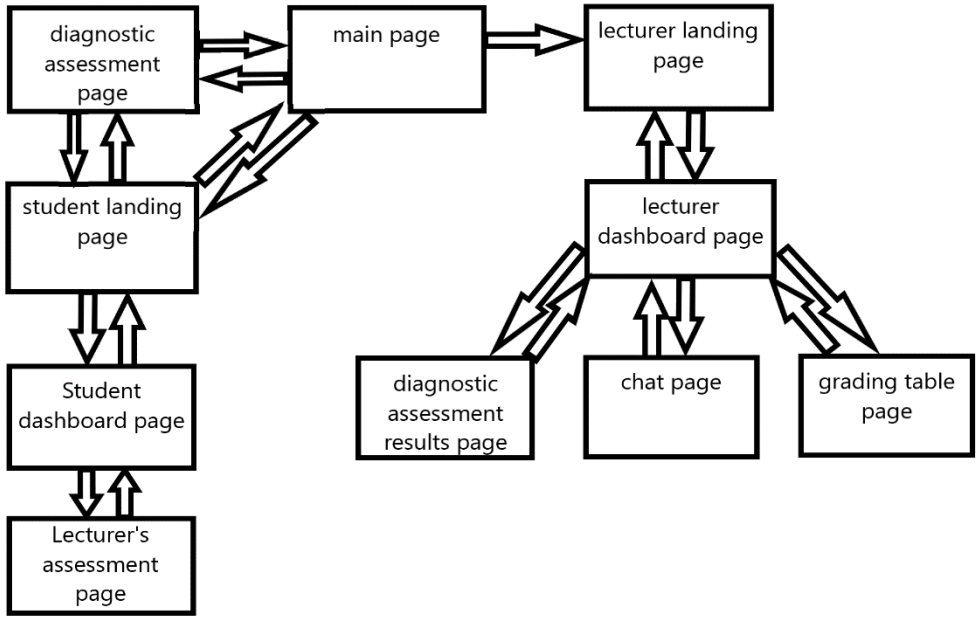
Comments and Messages from Students



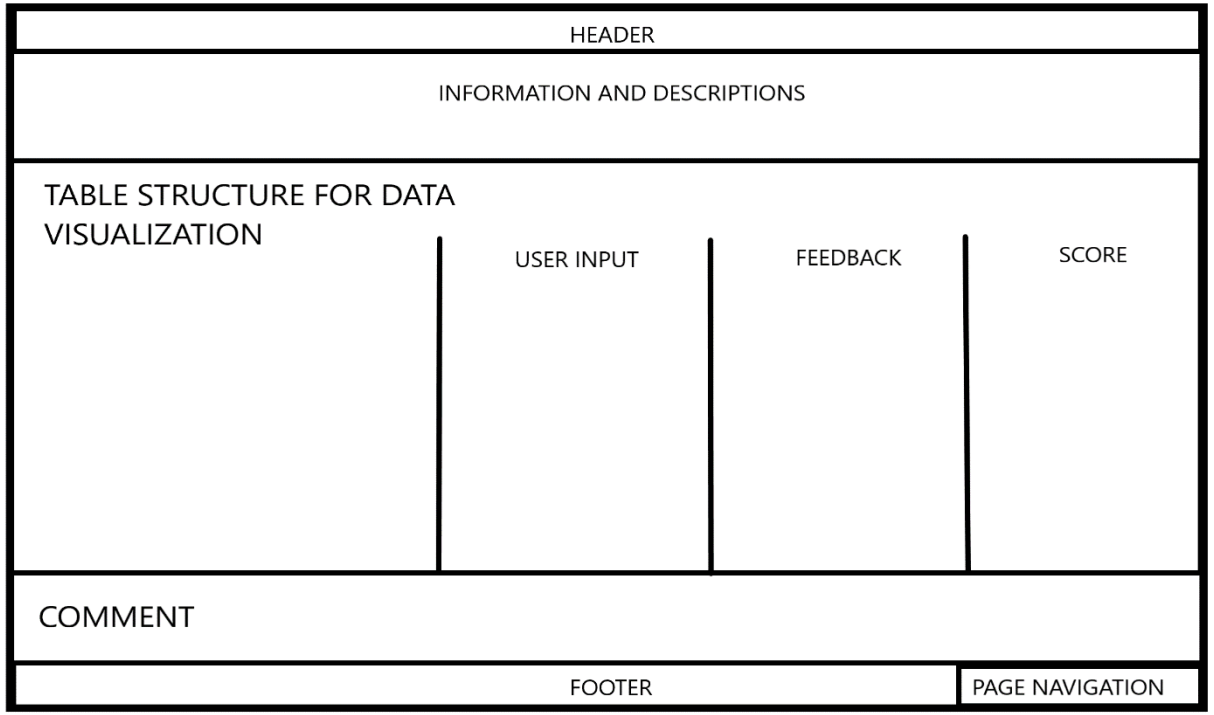
Conceptual model for feedback generation



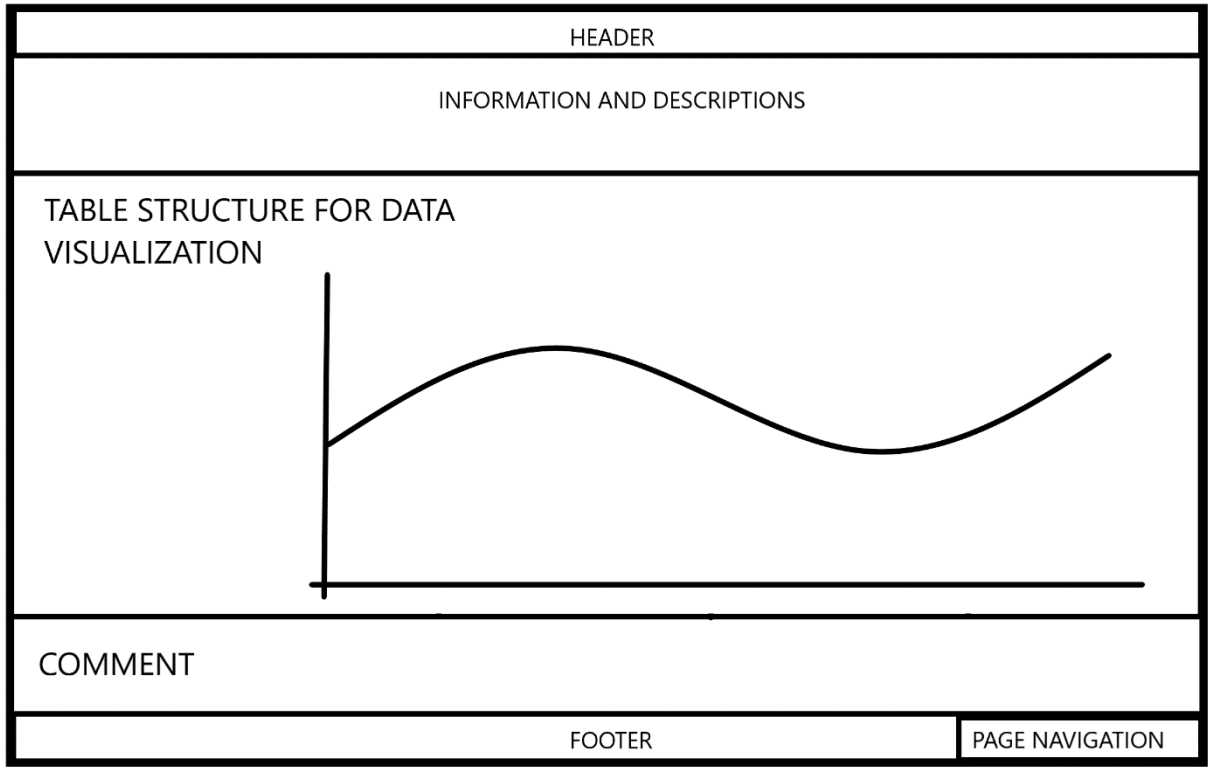
Click-flow and pages diagram



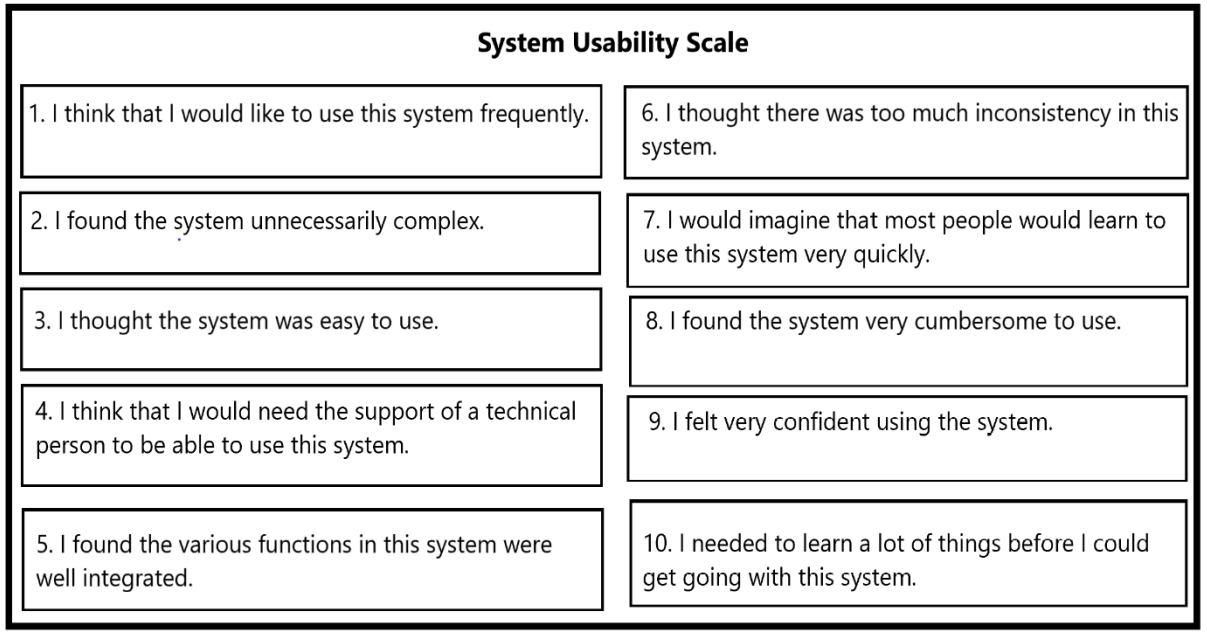
Mock-up Page for Student



Mock-up Page for Lecturer



System Usability Scale



System Usability Scale

1. I think that I would like to use this system frequently.
2. I found the system unnecessarily complex.
3. I thought the system was easy to use.
4. I think that I would need the support of a technical person to be able to use this system.
5. I found the various functions in this system were well integrated.
6. I thought there was too much inconsistency in this system.
7. I would imagine that most people would learn to use this system very quickly.
8. I found the system very cumbersome to use.
9. I felt very confident using the system.
10. I needed to learn a lot of things before I could get going with this system.

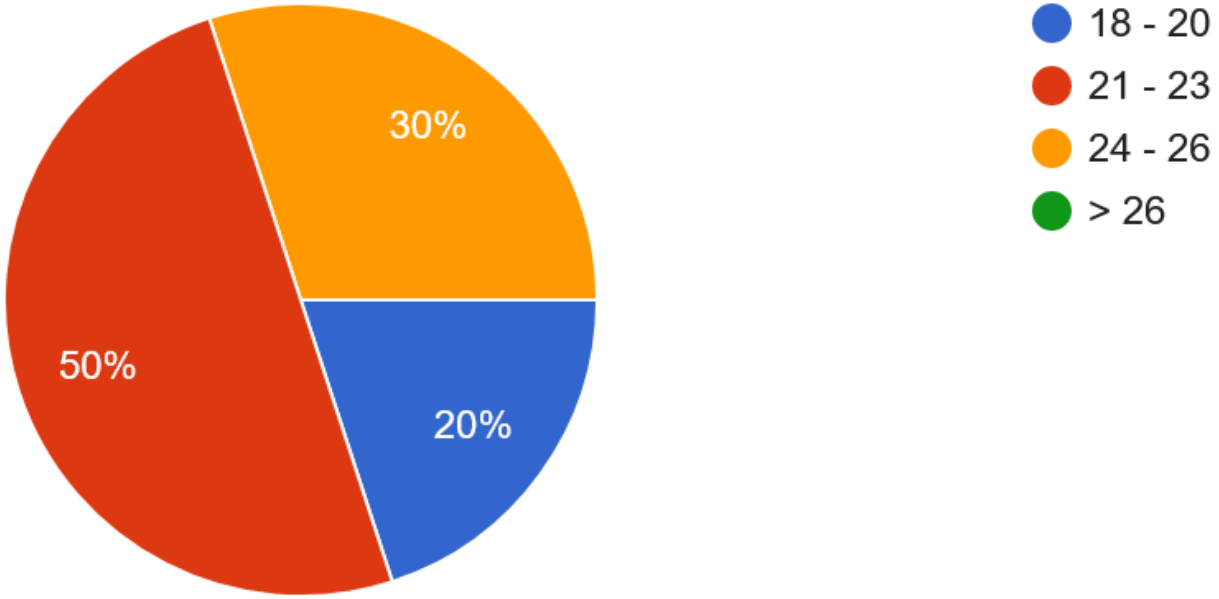
Evaluation folder in Google Drive

Name ↑	Eigentümer	Zuletzt geändert	Dateigröße
1) VIDEO ANSCHAUEN	Furkan Gürbüz	27.09.2021 Furkan Gürbüz	–
2) Monitoring Tool Link & Zugang	Furkan Gürbüz	29.09.2021 Furkan Gürbüz	–
3) FORMULAR AUSFÜLLEN	Furkan Gürbüz	28.09.2021 Furkan Gürbüz	–
beispiel case study	Furkan Gürbüz	27.09.2021 Furkan Gürbüz	–

Age Distribution

How old are you?

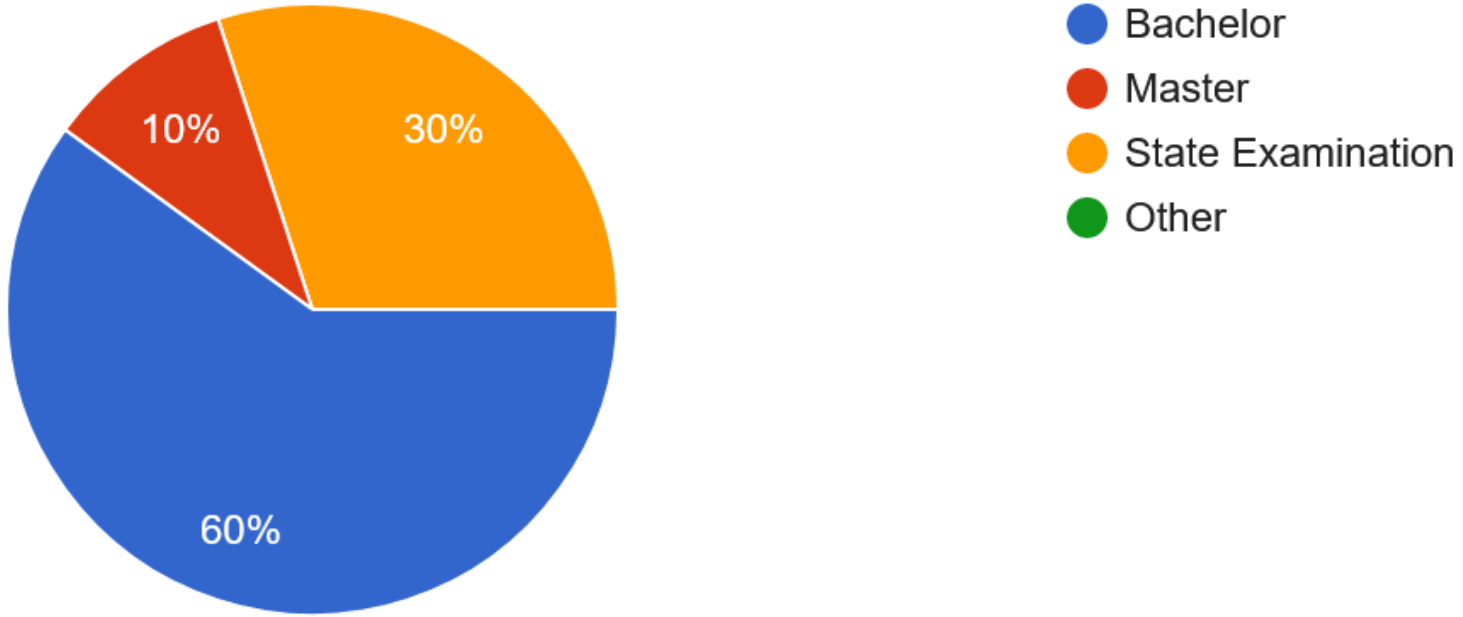
10 Antworten



Degree Distribution

Which degree are you aiming for in your current degree?

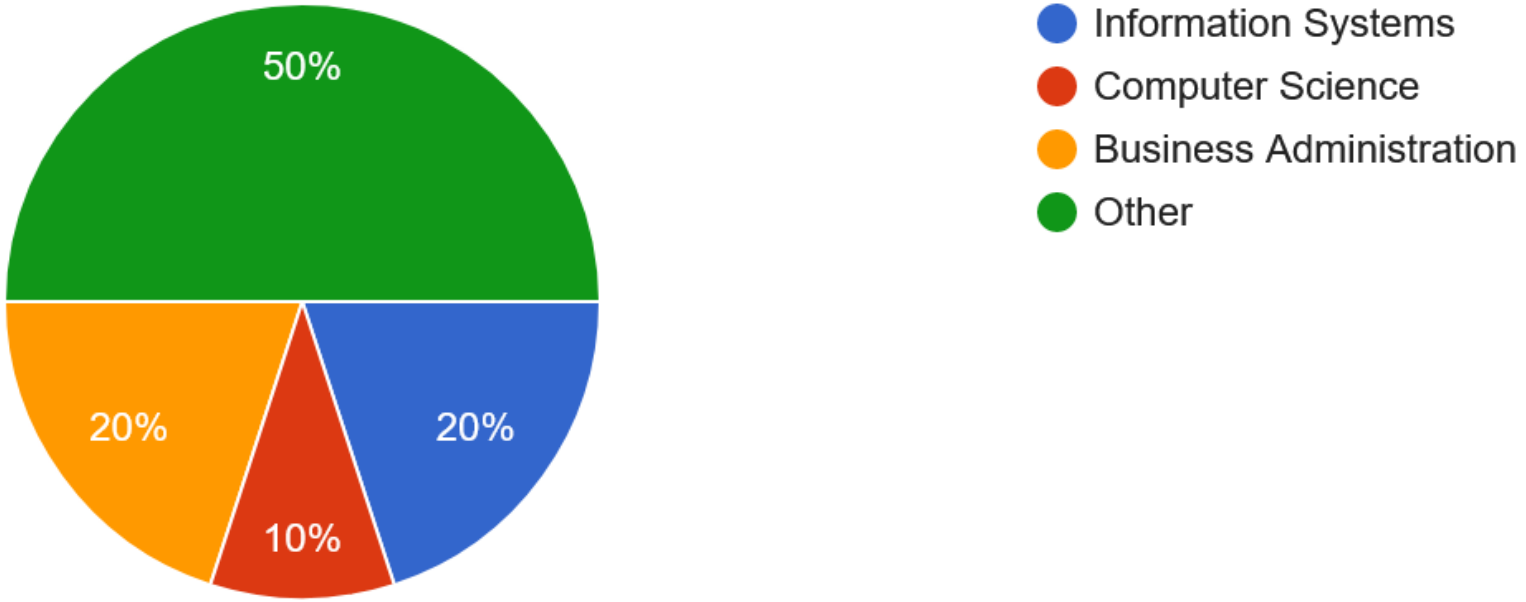
10 Antworten



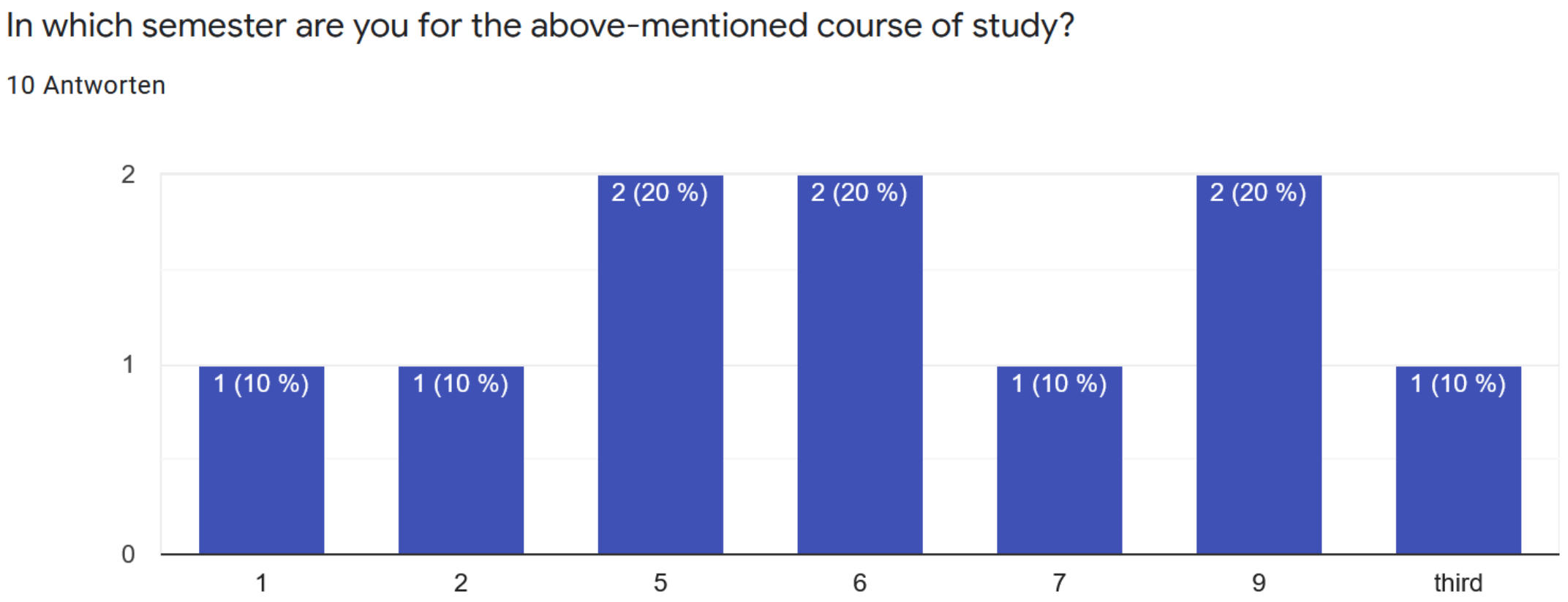
Course of Study Distribution

What is your current course of study?

10 Antworten



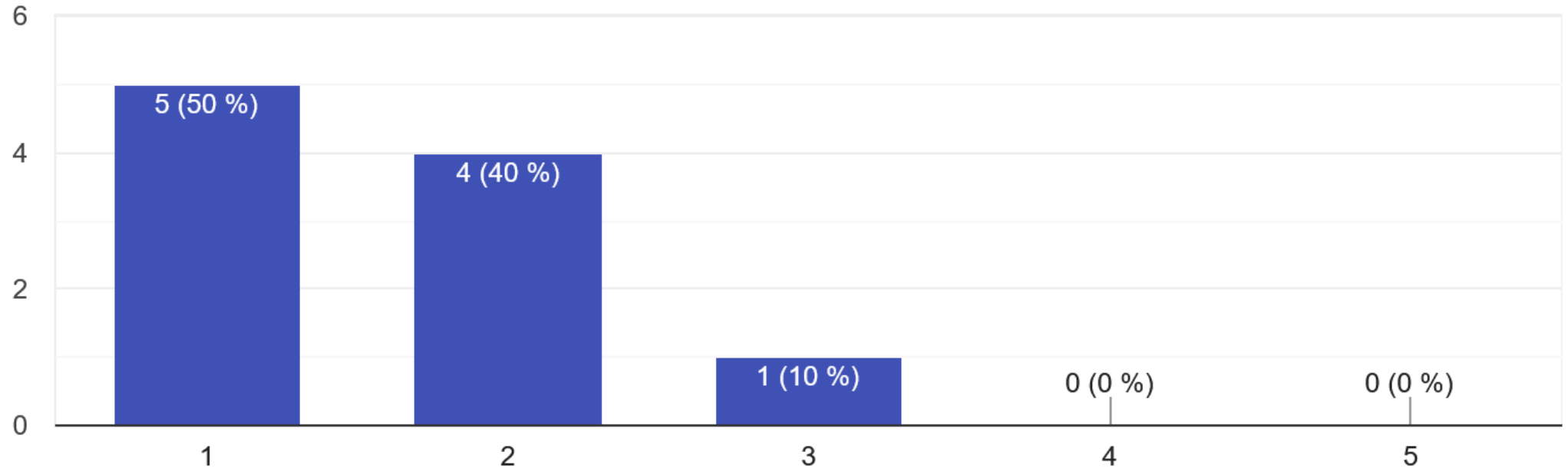
Semester Distribution



Complexity

I found the monitoring tool unnecessarily complex

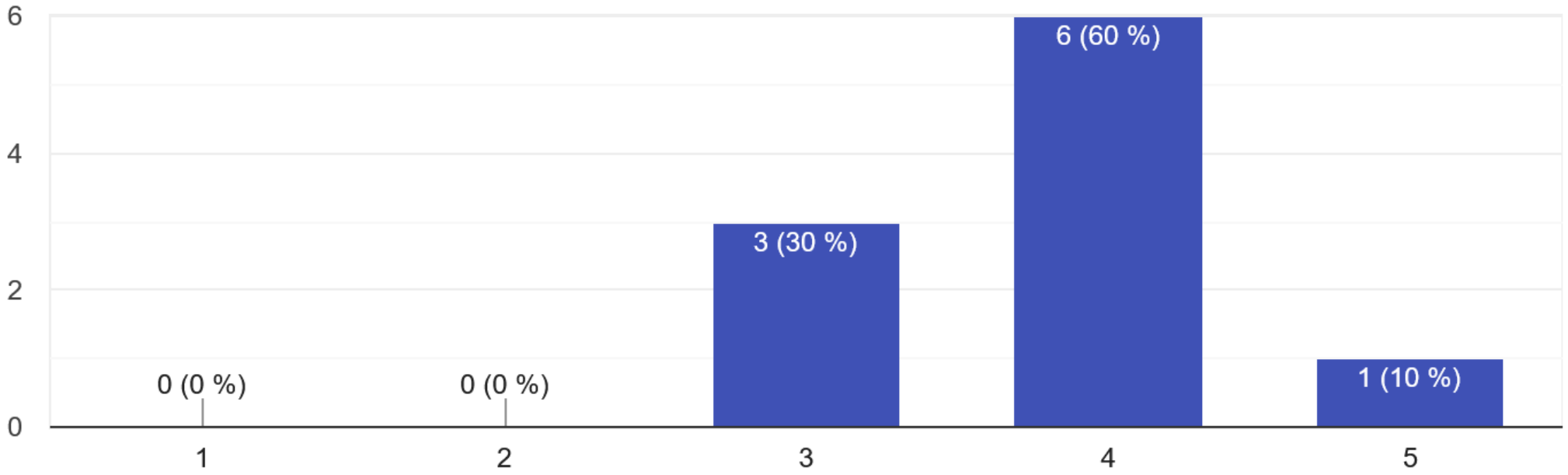
10 Antworten



Regular Usage

I think I would like to use the monitoring tool frequently

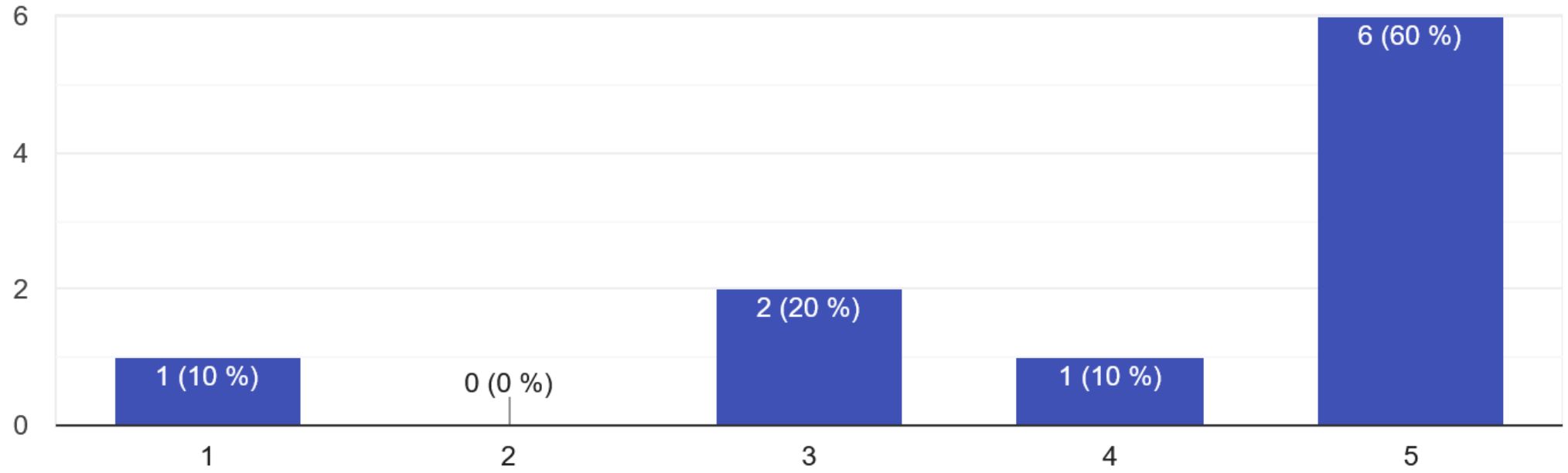
10 Antworten



Easy to Use

I thought the monitoring tool was easy to use

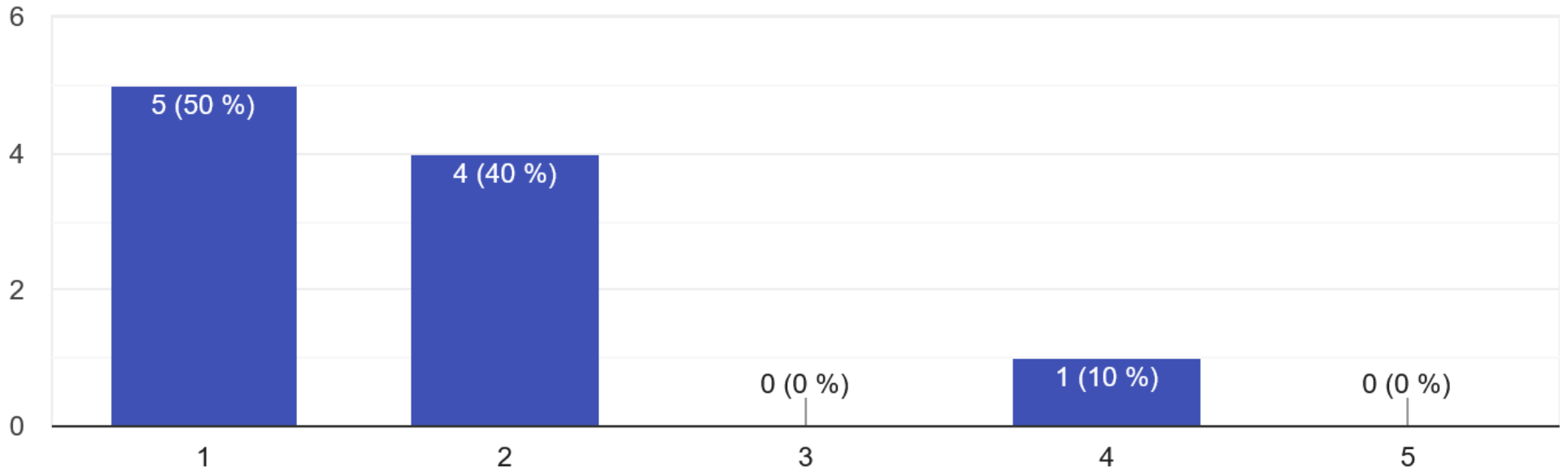
10 Antworten



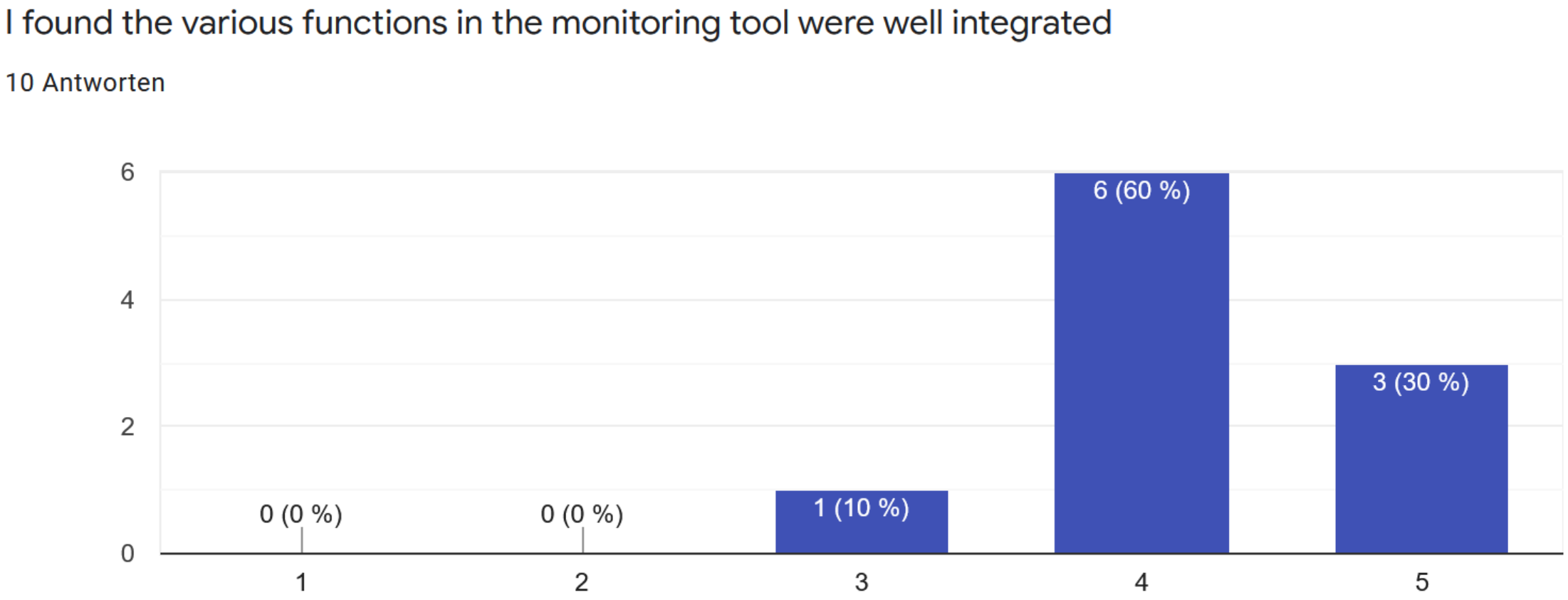
Help for Usage

I think that I would need the support of a technical person to be able to use the monitoring tool

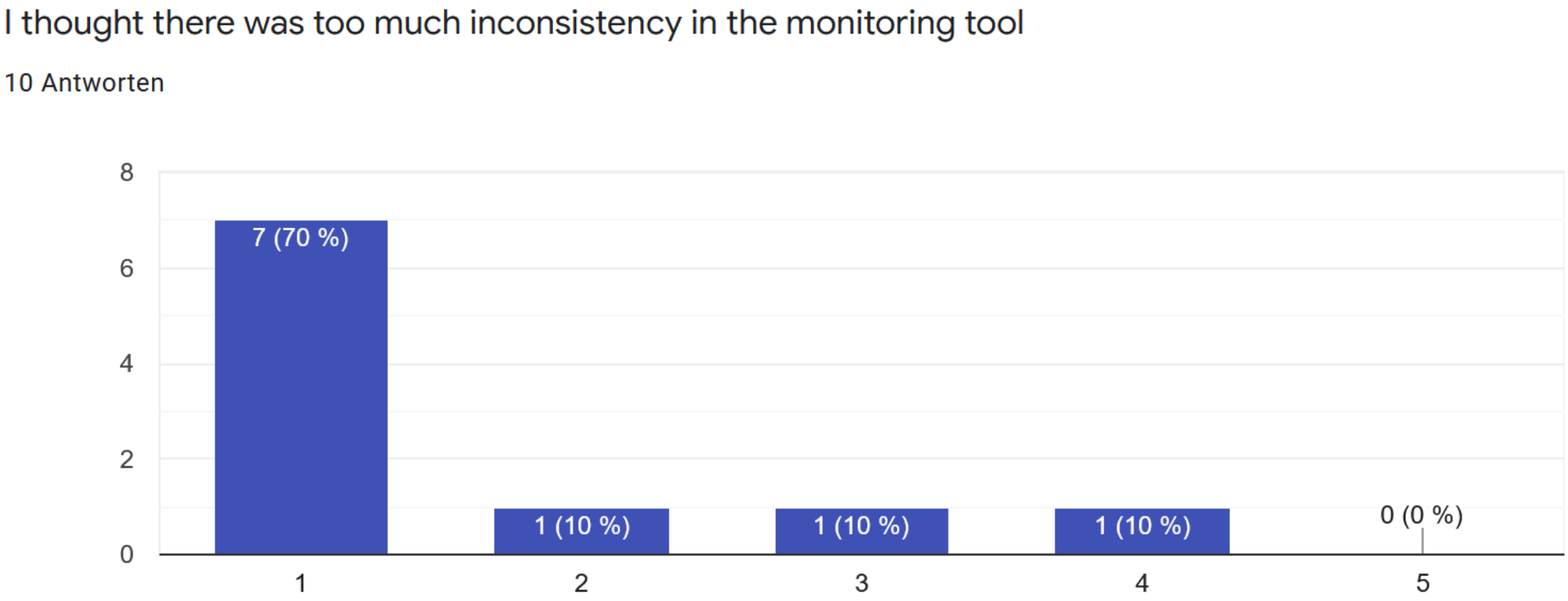
10 Antworten



Integration of the functionalities



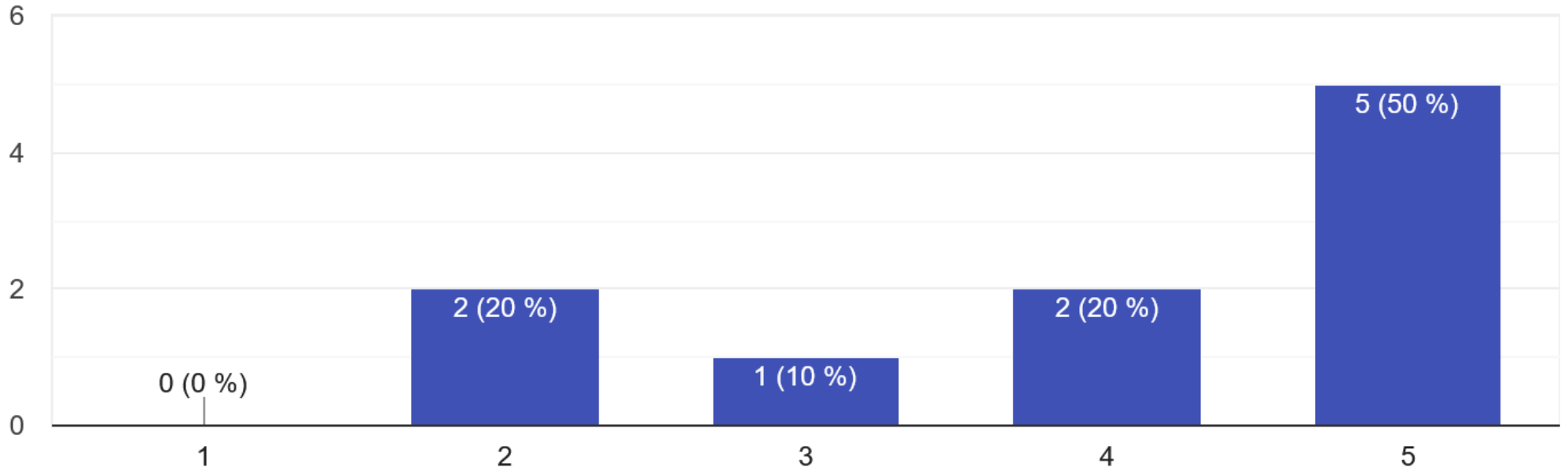
Inconsistency of the monitoring tool



Quick learning

I would imagine that most people would learn to use the monitoring tool very quickly

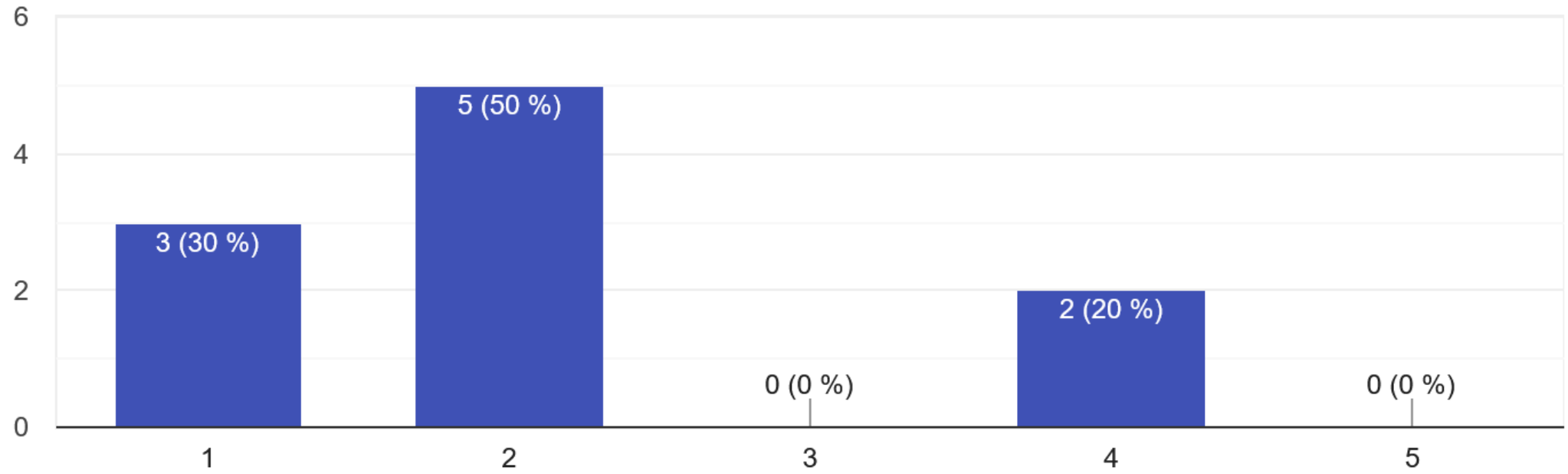
10 Antworten



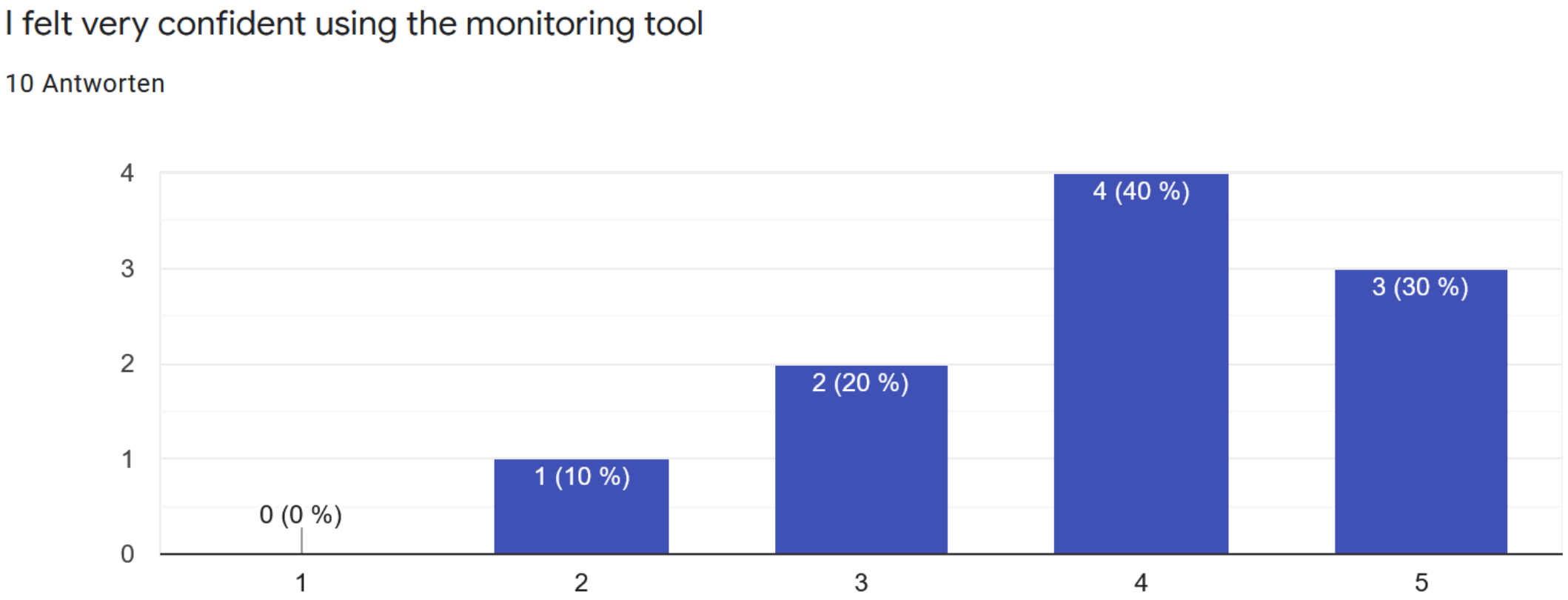
Cumbersome Usage

I found the Monitoring tool very cumbersome to use

10 Antworten



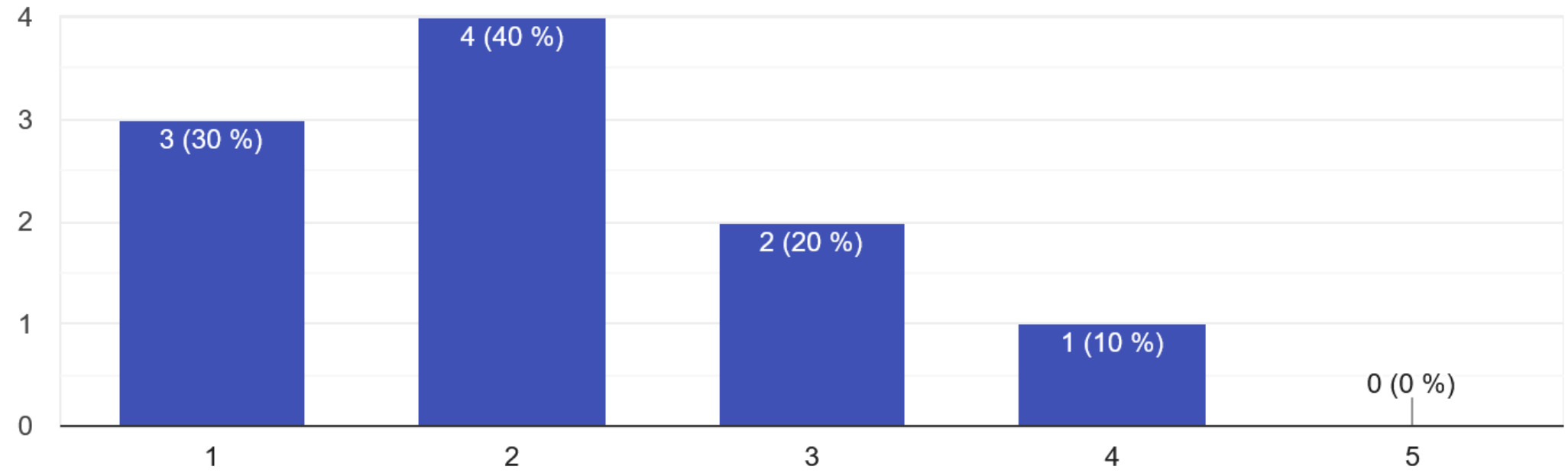
Confidence while Using the monitoring tool



Preknowledge before using the monitoring tool

I needed to learn a lot of things before I could get going with the monitoring tool

10 Antworten



SUS score calculation

Question 1	3,8	Question 2	1,4
Question 3	4,1	Question 4	1,7
Question 5	4,2	Question 6	1,6
Question 7	4,0	Question 8	2,1
Question 9	3,9	Question 10	2,1
Total Odd:	20	Total Even:	8,9
Result:	20 – 5 = 15	Result:	25 – 8,9 = 16,1
SUS Score	(15 + 16,1) * 2,5 = **77,75**		

SUS score interpretation