The IDs of the list, which are written in bold letters, will be done within the master-thesis itself. The remaining parts can be done via, for example, project-groups, etc.

Table 0.1: Showing the derived requirements of the Backend for the supervisor role, which are sorted by priority

ID	Description	Acceptance criteria	Priority
BS1	The supervisor should draft **guidelines** and assistance (e.g., Button with question-mark)	- At least one information resp. help function per functionality	1
BS2	The supervisor should be able to see **which data is missing**	- The feedback should be visual - The feedback should be transparent to upper layers of the UI	1
BS3	The supervisor should be able to see **data that is ready** for review	- Try without content that is ready for review - Try with content that is ready for review	1
BS4	The supervisor should be able to **assign exhibits** to students	- Try assigning an exhibit to one student - Try assigning an exhibit to more than one student	1
BS5	The supervisor should be able to **trace content** back to specific students	- Show visual connection between student and content	1
BS6	The supervisor should be able to **define topics** and exhibits	- Try defining a topic more than once	1
BS7	The supervisor should be able to **comment and discuss** the given content of the students	- Try commenting empty content - Try commenting a lot of content	1
BS8	The supervisor should be able to **mark errors** in the content	- Try marking an error twice	1
BS9	The supervisor should get **e-mail notifications** about new content handed in by students	- The message should leave the system in less than 2 minutes in 90% of the time	1
BS10	The supervisor should be able to **copy topics** and categories (e.g., usage of templates for different typical cases, duplication, etc.)	- Try copy an empty topic - The copied topic should be easily changeable to adapt it to the new usage	2
BS11	The supervisor should be able to define **validation-constraints** (e.g., character limitation)	- Try with error within the validation constraints	2
BS12	The supervisor is able to see the **amount** of **texts and pictures** in a hidden topic	- Try without any content included - Try with a lot of content included	2
BS13	The supervisor should be able to **work offline**	- Try disconnecting a running session	3

Table 0.2: Showing the derived requirements of the Backend for the student role, which are sorted by priority

ID	Description	Acceptance criteria	Priority
BSt1	The students are only able to **send in specific content** (field / topic)	- Try sending content to another topic	1
BSt2	The students should get an **e-mail notifiation** about new content in their topic (e.g., send in via fellow students)	- The e-mail should be received in less than 2 minutes in 90% of the time	1
BSt3	The students should be able to send in **metadata**	- Try with errors within the meta-data	1
BSt4	The students should be able to **overview** the **possible links** within their topic (e.g., GPS-information)	- Try without any links - Try with a lot of links	1
BSt5	The students should be able to **send in content**	- Try sending empty content - Try sending a lot of content	1
BSt6	The students should be able to **propose** topics and content	- Try proposing an existing topic	1
BSt7	The students should only have **access** to the backend **for a specific time**	- Try logging in after the temporary account has been deleted	1
BSt8	The students should have **access to all** temporary content (i.e., not reviewed content)	- Try accessing currently empty content	1
BSt9	The students should be able to create **interdisciplinary groups** and communicate within these	- Try creating a group without users - Try to send an empty message to the group - Try to send a very long message to the group	1
BSt10	The students should be able to see their content in a **preview mode** that simulates the frontend	- Try showing an empty topic - Try showing a huge topic	2
BSt11	The students should be able to see content of **other groups in a preview** mode that simulates the frontend	- Try showing an empty topic - Try showing a huge topic	2
BSt12	The students should be able to comment and **discuss** the content of their group or other groups	- Try to send an empty comment - Try to send a huge comment	2
BSt13	The students should be able to **hide** their unfinished work to the supervisor	- Try hiding without having any content	2

Table 0.3: Showing the derived requirements of the Backend for the master role, which are sorted by priority

ID	Description	Acceptance criteria	Priority
BM1	The master should be able to **recover data** by using a back-up system	- The recovery should not take longer than one hour	1
BM2	The master role can be assigned to a **couple of users** at the same time	- Try to assign the master role to nobody	2
BM3	The master is able to do the final **acceptance**	- Try to accept an empty topic - Try to accept a huge topic	2

Table 0.4: Showing the derived requirements of the Backend, which are sorted by priority

ID	Description	Acceptance criteria	Priority
BMi1	The data of the system is **stored** on IMT-Server	- The data should be easily transferable	1
BMi2	The system can be **updated** and maintained in the future (e.g., project-groups, SHK, etc.)		1
BMi3	The content should not be limited to specific **layouts, views** (e.g., languages) and templates		1
BMi4	The system should be **expandable** (e.g., new content, filters, etc.)		1
BMi5	The system should be **safe** with respect to hackers resp. data manipulation	-The system should be safe with respect to the economic view/ definition of safety	1
BMi6	The system offers features to **manage** groups	- Try managing a group with an empty name	2

Table 0.5: Showing the derived requirements of the Frontend, which are sorted by priority

ID	Description	Acceptance criteria	Priority
F1	The user should be able to **navigate** to the different locations shown in the HiP-application	- The navigation should response fast - Try navigating to the current position	1
F1.A	The user should be able to navigate to the different locations and discover these locations on his own	See F1	1
F1.B	The user should be able to navigate to the different locations and use round tour information of the application	See F1	1
F1.B	The user should be able to navigate to the different locations while using filters (e.g., epochs)	See F1	1
F2	The user should be able to create **thematic routes**	- Try creating a route without assigning a theme	1
F3	The user should get a **list of locations/exhibits** in Paderborn	- Try opening an empty list	1
F4	The user should **see linkings** within an exhibit different exhibits (e.g., Liborischrein -> Hle -> Scriptorium)	- Try opening a topic without links - Try opening a topic with a lot of links	1
F5	The user should be able to **deselect** specific categories	- Try deselect only one - Try deselect many	1
F6	The user should be able to **filter** exhibits on the map (e.g., locations, historical figures, etc.)	- Try using multiple filters	1
F7	The user is able to **overlay** the current map of the city with historical maps	- Try overlay one map with a hist. one - Try overlay a couple of maps	1
F8	The user is able to **see himself and historical** places on the map	- Try in an area without hist. places - Try in an area with a lot of hist. places	1
F9	The user should not **exceed his storage** on the smartphone	- Clear cache should be possible	1
F10	The user should not **exceed his data-volume** on the smartphone	- Pictures and videos have to be small	1
F11	The user should be able to use the application easily (**good usability**)	- Interface should not include too many functions per view	1

Table 0.6: Showing the derived requirements of the Frontend, which are sorted by priority

ID	Description	Acceptance criteria	Priority
F12	The user should be able to switch between **different contents** (e.g., Video, 3D, etc.) fast	- At most two clicks/touches between the different contents	1
F13	The user should be able to see ***invisible*** objects within the details-tab (e.g., something placed inside an altar)	- Try with more than one invisible object at the same time	1
F14	The user should be able to use **tablets** and smartphones	- The UI should adapt to the screen size resp. resolution	1
F15	The user should only get details about an exhibit while he is **next to it or afterwards**	- Try to get details beforehand	1
F16	The user should be able to get **texts, graphics/ pictures** and links about an exhibit	- Try without any texts, etc. - Try with a lot of texts, etc.	1
F17	The user should be able to get **audio, video** and **3D-views/models** about an exhibit	- Try without any videos, etc. - Try with a lot of videos, etc.	2
F18	The user can create and join **treasure hunts** respectively geo-caching features	- Try join an treasure hunt without a name	2
F19	The user should get informed about **exhibits** and **locations that are next to him**	- The information should be send immediately as the user arrives at the position	2
F20	The user should be able to get navigated with **AR-rabbits**	See F1	2
F21	The user should be able to get navigated inside of a **building**	- The navigation should be accurate	2
F22	The user should be able to choose between different **starting possibilities** (i.e., tour, discovery and historical topics)		2
F23	The user should be able to **hear the content** via an audio-guide	- The audio files should be small (see, F9, F10)	2
F24	The user should be able to get exhibits as **comparison by using AR**	- Try opening more than one exhibit as comparison	2
F25	The user should be able to **create own notes and comments**	- Try creating an empty note/comment - Try creating a huge note/comment	2
F26	The user should be able to **share content** via social media	- Sharing should not need more than two clicks	2
F27	The user should be able to **export content** as PDF and create book-marks	- The export should not take longer than 30 sec in 90% of the time	2
F28	The user should be able to get the content in **different languages** (i.e., english, french, turkish)	- Adding new languages should be easy	2
F29	The user should be able to choose between different **criteria** with respect to the audience (e.g., different ages of people)	- Try selecting one criterion - Try selecting more than one criterion	2