List of Requirements

> The table below reflects the requirements created during the workshop on 03.04.2023. After estimating the effort this table will be shared with all the project partners for reflection and further input. Subsequently Thryve and DOCYET will discuss on which site the specfic requirements will be handled. In addition, the requirements are broken down into implementable work packages.

ID	Role	Title	Description	Category	Priority (MoSCoW)	Effort Estimation	Acceptance Criteria TBD	Comment
NF01	Researcher	Bring own Wearable	As a researcher, I would like to include only patients who own a wearable in the study because I would like to exclude confounding effects in behavior change as much as possible.	Usability /Handling /Accessibility	MUST	M	• We need to support common wearables / manufacturer	Constraint
NF02	Patient		As a patient, I would like to use my own wearable to record my exercise data because it is convenient and easier for me to use a device that I am familiar with.					
F01	Researcher	Randomized bot types	As a researcher, I need an application that randomizes only once at the beginning of the study and always assigns the same bot type in the following to study the manipulation effect of the bot.	Data analysis /method	MUST	S	• Unique assignment of a bot type per user at the beginning of the study	Constraint
F02	Researcher	Data analysis	As a researcher, I would like to have access to individual chatbot usage and frequency because I need the data for ML predictive models.	Data analysis /method	MUST	S	• Usage of chat bot can be tracked using KIBANA / Elastic search • Details must be specified	Constraint
F03	Patient	Data overview in data protection	As a patient, I would like to have an overview about the data being collected about me and my behaviour before I use the application because I want to feel like I am in control.	Provision of context information	MUST	S	• Informing the user in accordance with the GDPR should be sufficient for this	Data privacy context
F04	Researcher	Data protection & authorization concept	As a researcher, I need a functioning data protection, consent and authorization concept to ensure that I am allowed to use the data collected in the project for research purposes.	Provision of context information	MUST	M	• In addition to the general requirements for data protection, it must be clearly presented how, for what purpose and by when the data will later be used.	
F05	Patient	Data overview during use	As a patient, I would like to see an overview of what data is being collected about me during use of the application because I want to feel like I am in control.	Provision of context information	SHOULD	M	• TBD, to what degree we can and want to implement that. Not all data we collect is suitable to present to the user (e.g. technical meta data).	Data overview
NF03	Patient	Project information	As a patient, I would like to be able to access information about the research project and those involved because I want to know who is processing my data and how.	Provision of context information	MUST	S	• Shall be overed by general study information	
NF04	Patient	Medication	As a patient, I would like the application to know which medication I am taking in order to avoid unwanted complications and to optimally support my behavior.	Provision of context information	COULD	XL/L	• Feasibility unclear, limit to insulin or similar if necessary?	

F06	Researcher	Free text input	As a researcher I need an app that allows free reponse options at certain points in order to engage the user.	Information input by user	SHOULD	S	• Functionality can be implemented by a bot conversation.	However, these free response options should only be answered /processed in a very generic/limited way.
NF05	Patient	Diabetes sensitive language	As a patient, I do not want to be stigmatized because of my diabetes, because I want to feel supported by the application.	Information input by user	MUST	M	• Language should be compatible with DOCYET's Speech guidelines	
F07	Researcher	Baseline physical activity data	As a researcher, I want to know how much patients move at baseline/have moved in the past, because I can better adjust recommendation based on that.	Information input by user	SHOULD	M	• Self-reported by patient? • Appart from that, not sure how to operatinalize that	
F08	Patient	Correcting incorrect entries	As a patient, I would like to correct incorrectly entered information because I do not want inappropriate recommendations to be made and my trust to be diminished.	Information input by user	SHOULD	L	• Could be relized by Profil Functionality of the bot • Need for defining more precisely what information shall be involved here	Distinguish between aktively entered information vs. passively collected wearable data vs.
NF06	Researcher	Feedback Product Improvement	As a researcher, I want feedback from patients to improve my product.	Information input by user	MUST	M		See F06
F09	Researcher	Feedback Problem Handling	As a researcher, I need direct patient feedback, preferably in real time, to be able to react in time to problems that occur during use.	Information input by user	SHOULD /COULD	M	• Need to be defined what realtime means here and how this feedback shall be given	
F10	Patient	Problem handling	As a patient, I want to be able to give feedback when something is not working to make it clear that it is not up to me.	Usability /Handling /Accessibility	MUST	M		Duplikates F09 from other perspective
			As a patient, I need a way to get support if a problem arises during use so that I can continue to participate in the study.			M		
NF07	Patient	Easy access	As a patient, I would like to have easy access to the application to reduce the effort before starting to use it.	Usability /Handling /Accessibility	MUST	M		
NF08	Researcher	Low-threshold use	As a researcher, I need an assistance system that enables a particularly low-threshold use by test persons in order to keep dropout rates during use as low as possible.	Usability /Handling /Accessibility	MUST	M		Duplikates NF07 from other perspective
NF09	Patient	Tutorial	As a patient, I would like to have a tutorial (e.g. video) on how to set up everything initially, so that I'm sure I am adequately prepared.	Usability /Handling /Accessibility	MUST	M		
F11	Researcher	Push notifcation	As a researcher, I need an assistance system that allows push notifications to users to activate and encourage participation.	Usability /Handling /Accessibility	SHOULD	L		• Combine in one requirement and define in acceptance criteria • Enable and disable push notification
F12	Patient	Enable and disable push notifications	As a patient, I would like to be able to disable annoying notifications so that I'm not always reminded of my goals when it is not convenient for me.	Usability /Handling /Accessibility	SHOULD	S/M		
NF10	Patient	Comprehensibility	As a patient, I would like simple and comprehensible language to be used because I want to understand the content.	Usability /Handling /Accessibility	MUST	S	• Language should be compatible with DOCYET's Speech guidelines	

ID	Role	Title	Description	Category	Priority	Size		Notes
NF11	Patient	Flexibility	As a patient, I would like to have flexible access to the information, because it should fit in my life situation.	Individual information needs	SHOULD	L		
NF12			As a patient, I would like to be able to actively obtain recommendations so that I can be supported when I feel like it.			L		
NF13	Patient	Informative content	As a patient, I would like to receive informative content because I want to feel supported and increase literacy about my condition.	Individual information needs	MUST	S/M		
NF14	Patient	Personalized recommendations	As a patient, I want to receive appropriate and realistic recommendations because I want to continue to be motivated and keep my frustration low.	Individual information needs	MUST	M		
NF15	Patient	Physical activity trends	As a patient, I want to see how my movement patterns have changed over time because I want to see my progress.	Individual information needs	SHOULD	M		
F13	Researcher	Assistance system data	As a researcher, I need data on the use of the assistance system, collected over a period of at least three months, in order to be able to establish the long-term effects of the interventions, including vital signs such as blood glucose.	Data analysis /method	SHOULD	S		
F14	Researcher	Wearable based bot interventions	As a researcher, I need an assistance system that plays out bot interventions based on wearable data to map the effect of interventions on patient adherence.	Data analysis /method	SHOULD	L		
F15	Researcher	Data recording	As a researcher, I need an app that records enough and detailed data to determine when, for example, a push notification or similar was effective.	Data analysis /method	SHOULD	M		
NF16	Researcher	Avoid confounding effects	As a researcher, I need a chatbot application that does not contain a motivational component that outshines the communication style (e.g., gamification) to rule out confounding effects.	Data analysis /method	MUST	-		Just to remind, nothing to implement here.

⌄ Legend

MUST	Must have
SHOULD	Should have
COULD	Could have
WONT	Won't have
P	Provision of context information
I	Information input by user
U	Usability/Handling/Accessibility
N	Individual information needs
D	Data analysis/method
F	Functional
NF	Nonfunctional