

## TEAM 51: TRACEABILITY MATRIX

ID	REQUIREMENT	RELATED USE CASE	FULFILLED BY	DESCRIPTION	TEST
1	The pump requires a pin-passcode to grant a patient access	Main use case	homescreen	Handles passkey logic such as input verification and determines whether pin matches stored value	Run the simulation and you'll be required to enter pin
2	The pump must display real-time information about the patient and pump.	Main Use case	homescreen,	Logging and display functionality can be found in homescreen.h/ccp for continuous patient status update	The pump should display the insulin graph, IOB and relevant pump info
3	The pump tracks changing insulin levels and any bolus delivery	Main Use case, Sub use case 2	homescreen,	Signal handling, logging and displays modifies the graph and dynamically updates IOB	Observe the dynamic insulin graph and IOB
4	Pump simulation allows for the calculation and delivery of correction bolus	Sub use case3	Bolusscreen, Bolusinitiatedscreen, Correctionsuggestionscreen, finaldeliveryscreen, finalextendeddeliveryscreen	Contains bolus calculation logic aswell as input verification and necessary implementations	Use the bolus button to access/interact bolus page
5	Pump simulation allows for varied bolus delivery	Sub use case3	delivernowinputscreen, durationinputscreen, extendedbolusscreen, extendedbolusinitiatedscreen	Contains logic to modify the bolus delivery, such deliver now/later and duration.	Via bolus page vary the extended bolus delivery
6	Pump stores relevant patient info such as Target BG, CF etc...	Sub use case5	Profilepage, profileservice, optionsscreen	Encapsulates configuration of patient/profile information	The profiles page stores/displays relevant info
7	Patient profile info can be modified accordingly	Sub-use case5	Profilepage, profileservice, optionsscreen, createeditprofile	Contains logic that allows for the modification and dynamic update of the profiles database	Change patient info via the profiles page
8	Pump logs activity/ errors	Sub use case 4, sub use case 6	Errorlogpage eventlogpage	Contains error tracking, logging and display logic	The log page displays all relevant activity/error info

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9	Patient contols pump activity i.e On/Off, pause/stop	Sub use case1	Optionsscreen homescreen,	Allows for simulation control such as powering on /off of pump, and start/stop pump delivery	Buttons such as Power on/off and stop pumping
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