My Medibox

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Codebusters

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Content of the Presentation

Problem

Your medicine cabinet at home is messy, you have no overview over which medicine you own and when they expire.

You get a prescription from your doctor and sometimes end up paying again for a medication that you, in fact, already had at home.

Product Requirements

Content of your medicine cabinet can be scanned by an app

Generate an inventory with purchase date, expiry date and more info

Possibility to check if you have the medicine at home

Info/push notifications if your medicine reaches the expiry date

Info on how to dispose expired medicine safely

Demo of My Medibox

Enjoy!

Project Development

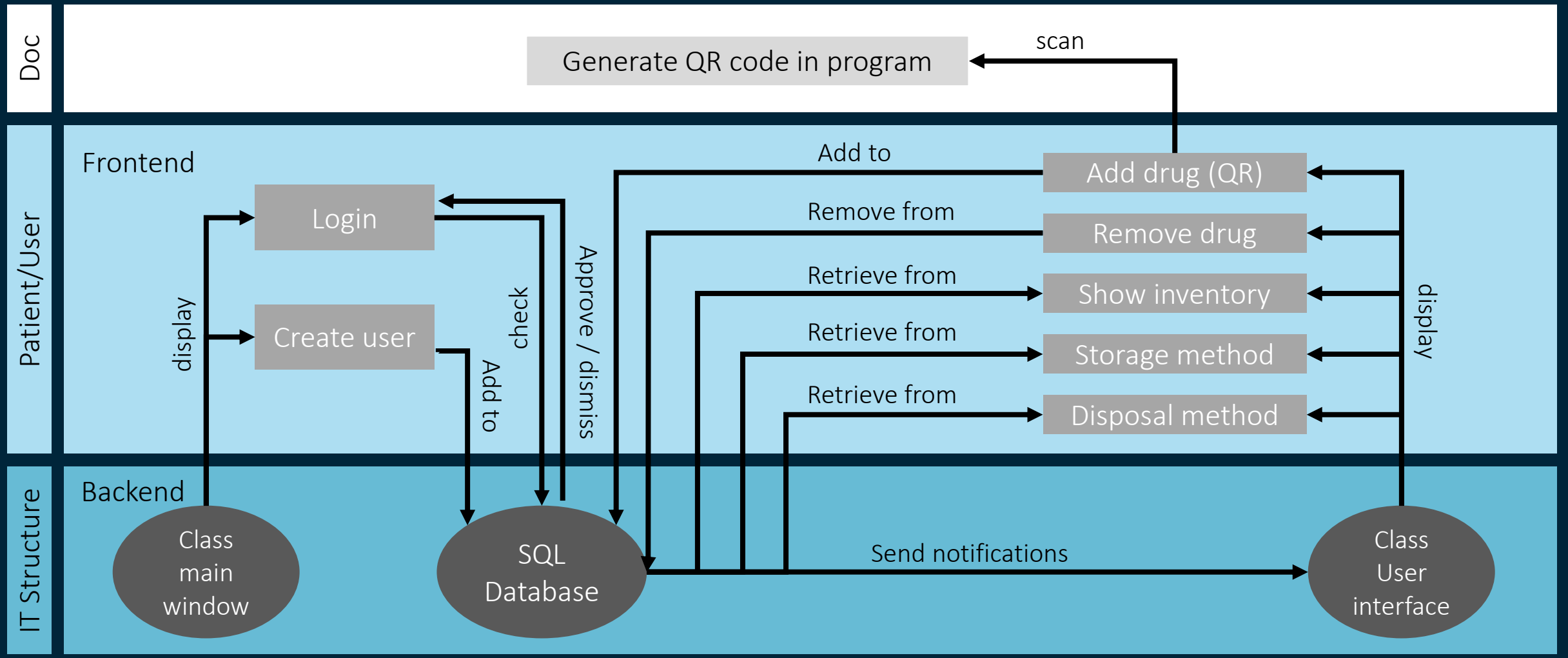
Phase 1 – Set-Up: Understand the task, create a project plan and set up an efficient work environment

Phase 2 – Make it run: Create a working MVP with the tools we have learnt (functions, dictionaries, lists, etc.)

Phase 3 - Improvement: Improvement of MVP with additional tools (Tkinter, SQL, QR code, etc.)

Monday	Tuesday	Wednesday	Thursday	Friday
Understand task	Start coding	Tkinter UI	Finalize Tkinter	Presentation and Q&A
Brainstorming	Create functions	SQL database	Finalize SQL	
Infra & plan	Create dictionary	Adjust functions	Finalize QR	
Divide tasks	QR function	Dictionary -> SQL	Finalize functions	
Drug inventory	Put together	Improve QR	Preparation	

Solution


Doc
Generate QR code in program
scan
Patient/User
Frontend
Add to
Add drug (QR)
Login
Remove from
Remove drug
Retrieve from
Show inventory
Retrieve from
Storage method
Retrieve from
Disposal method
display
Create user
display
check
Add to
Approve / dismiss
IT Structure
Backend
Class main window
SQL Database
Send notifications
Class User interface

Deep Dive into the Code

Problems we had & how we solved them

Challenges	Solutions
 Knowledge: • How to create an app? • Brain drain (someone left) • Asymmetric distribution	• Google as much as possible • Redistribute tasks to other members and transfer existing knowledge • Learn from each other
 Time: • Time contraints in plan • How to learn and apply necessary things fast	• Adjust plan to progress made • Look things up on Google, stackoverflow and Youtube
 Work methods: • Work efficiently (on Github) • Many redundancies • Instructions necessary	• Use Teams and switch to Github • Try to think ahead in the process and avoid redudant work • Ask tutors and instructors for help
 Technical issues: • Import of modules • QR code reading and format • Make it work with SQL	• Try several ways to import modules • Watch tutorials and try & error • Fail fast learn fast, make small steps

Future Improvements

Change to a more suitable and scalable programming language (e.g. to Java Script)

Improve code quality through refactoring and debugging, improve fail-safety by adding checks and tests

Make the app available for everyone and put it in the app store

Improve the UI/UX to ensure a smooth customer journey

Create a business model around the app to turn it into a business

Conclusion & Key learnings

- Coding is not easy, but there is nothing you can’t find on Google.
- Make it run, improve along the way.
- If you are willing to learn, you can have a very steep learning curve and improve your programming skills pretty fast.