



Vivere

a personal health assistant or everyone

# Application Report

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for EPL425: Internet Technologies

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# Introduction

## Project Summary

Our goal is to implement a personal health assistant who is able to:

- Help any user manage his appointments to the doctor or the chemist
- Store and display patient's appointment history
- Remind the user to take his medication using classic and original methods.
- Remind the user periodically regarding medical examinations
- Keep the user up-to-date with his health obligations
- Gain a good habit or break a bad one

We aim to create an intelligent, responsible and user-friendly health assistant that will motivate the user to be more passionate about taking care of his health state.

## Approach



All those above are a bunch of factors that we have considered in order to achieve our goals and connect the knowledge domain with the psychological part. The application was constructed on the basis of the above factors.



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## Research

We have conducted a brief research medical knowledge for the purpose of our project. In addition, we searched to find more about the psychology of human and how we could integrate this knowledge in our application in order to motivate the user to act more regarding his health.

All the medical and psychology research is **attached** in separated **.PDF** files.

- Medical\_Knowledge.pdf
- Psychological\_Approach.pdf
- What\_Causes\_Negligence.pdf

## Competitors

Health or Fitness Apps in General:

We've searched and found an interesting article containing the top 10 health/fitness apps:  
<http://www.androidauthority.com/best-health-apps-for-android-668268/>

Medisafe Meds & Pill Reminder

You can add a medication, get reminders for taking pills, and receive constant tracking of your health progress:

<https://play.google.com/store/apps/details?id=com.medisafe.android.client&hl=en>

HabitBull - Habit Tracker

Although this app has no real connection to our habits idea, it is the closest competitor we could find.  
<https://play.google.com/store/apps/details?id=com.oristats.habitbull>



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# Design

## Philosophy

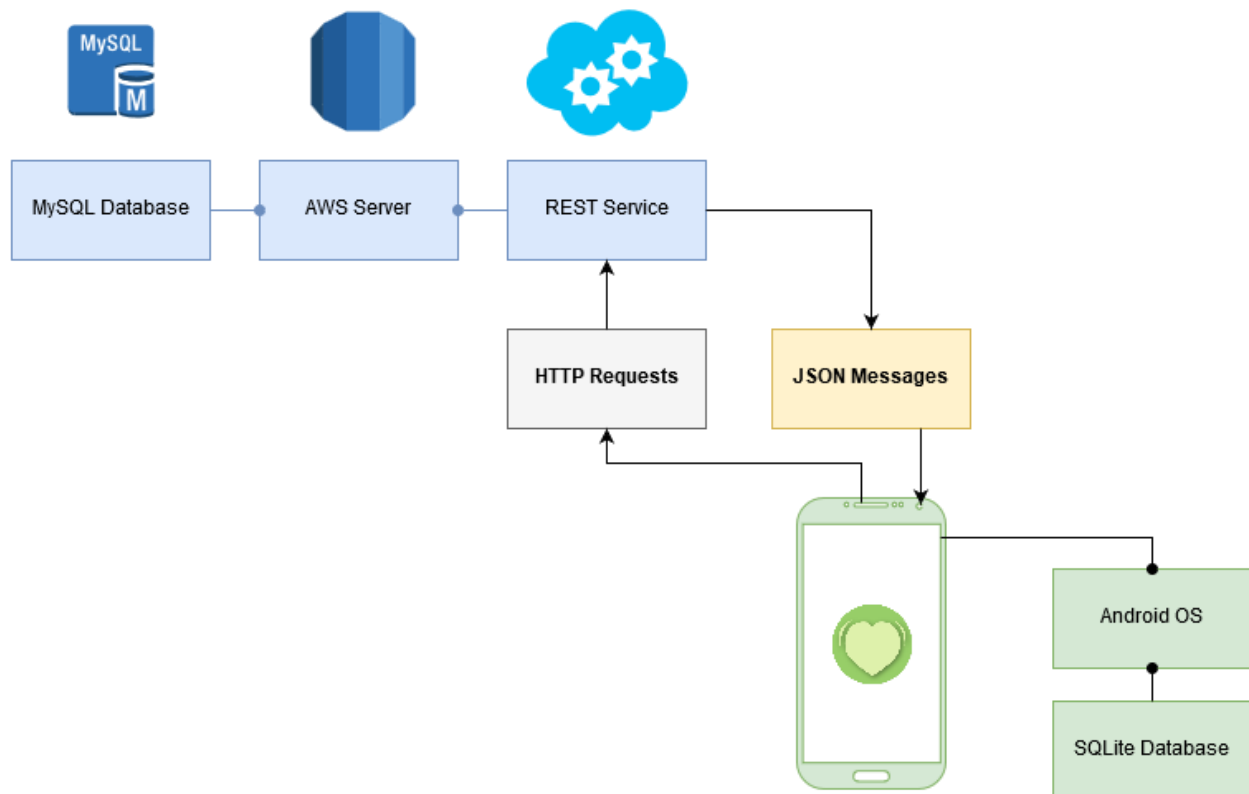
We use a hybrid approach in our design. We fused Material Design with Flat Design in order to suit our application needs. We put together colors that are soothing and make the user feel at ease. Finally we integrated our brief psychological knowledge into the application.

## Technology Design

### System Diagrams

Vivere

## System Diagram

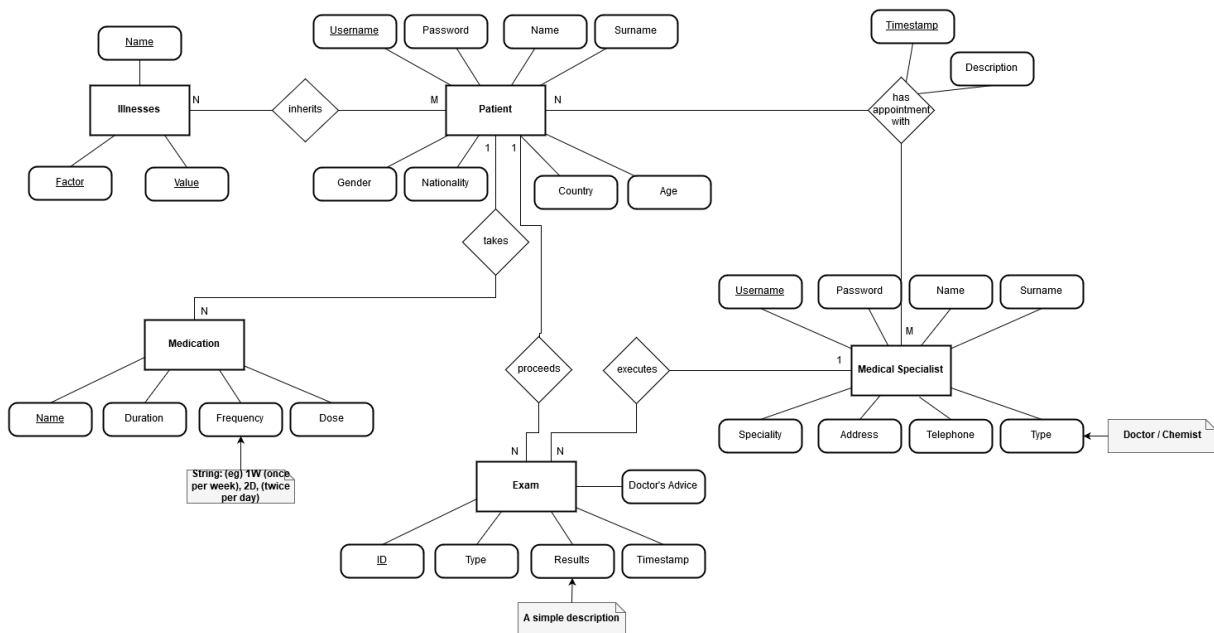




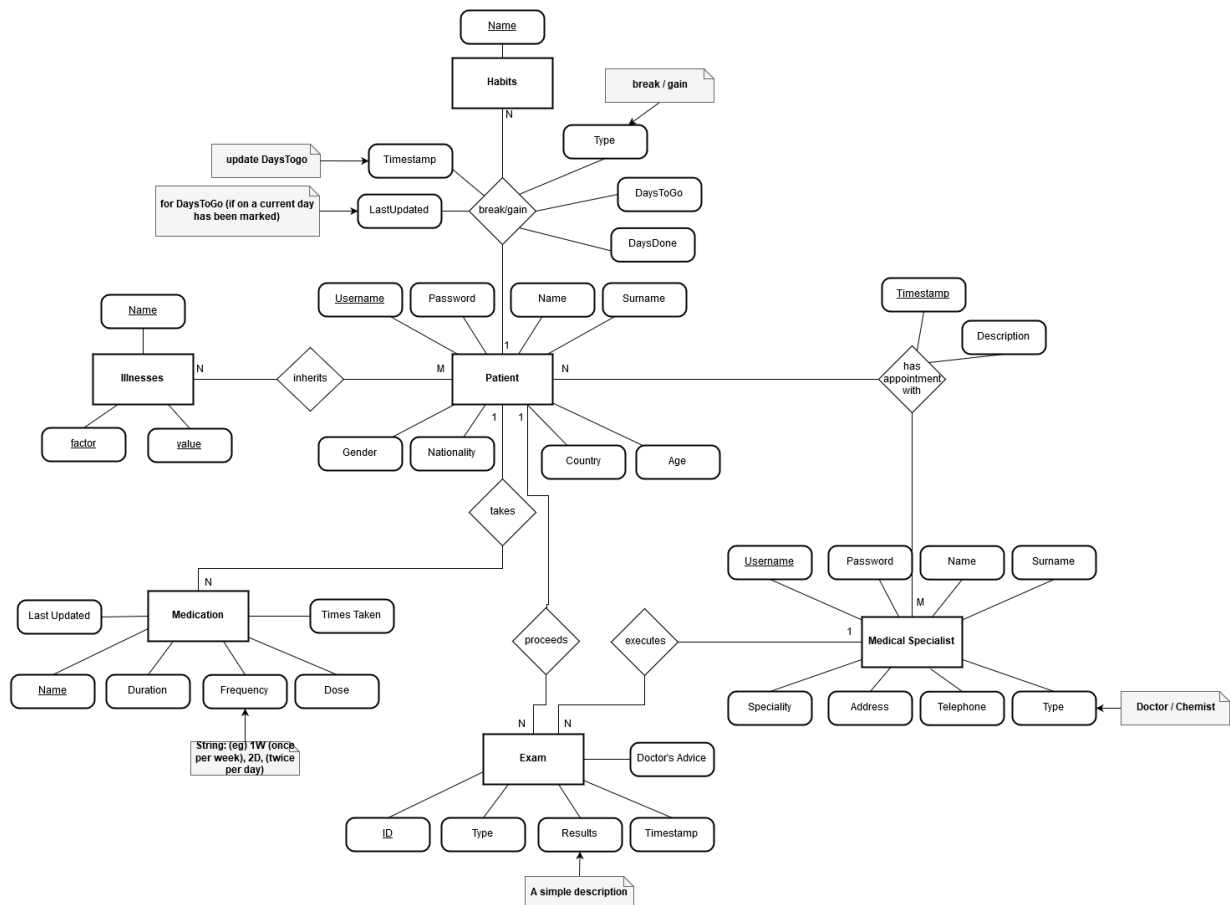
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## Remote Database



## Local Database













# Implementation

## Technology Implementation

### Technologies

	Android
	JAVA
	XML
	MySQLite
	JSON
	PHP
	MySQL
	RESTful Service

### How we used the above technologies:

**Android:** The smartphone application was developed for Android OS devices

**Java:** The application was coded using the programming language java.

**XML:** The user interface was created using XML

**MySQLite:** The app makes use of local databases to store necessary information using MySQLite

**JSON:** The app is able to parse JSON files coming as responses from a remote server.

**PHP:** PHP is used to insert/retrieve information to/from the remote server

**MySQL:** The remote server contains a MySQL built database.

**RESTful Service:** We setup a service which will be responsible for the communication between the smartphone app and the remote server.



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## Timeline and Communication

We've used GitHub as a project repository and Git as a versioning system for Vivere's Implementation, as well as for the RESTful Service of Vivere.

**GitHub Repository:** <https://github.com/gdemos01/Vivere>

For project management we used Microsoft Project to assign our tasks and track our progress in the timeline. The **Microsoft Project file** is attached as **Vivere.mpp**.

# Evaluation

## Testing and Feedback

We conducted an experiment to test our application in real life usage. The application was given to 3 different types of people in order to extract accurate results and opinions. Our experiment consisted of a survey which contained key questions focusing on the design, usage and functionality of our application. The survey is attached as **Vivere\_Evaluation.pdf**.

### General Feedback

In general, they liked Vivere. What they liked most was the overall simplicity of the application. They were happy with the design and functionality. They would see themselves using the application in the future, but with some additional improvements in the core design and functionality.

### Problems and Bugs

They found a bug in medication's notification system. Instead of properly reminding them of taking the medication, the notifications came three times a day in bulk. **We fixed this.**

The most common bug in the design was some layout deformation when they were trying to search for a doctor while adding a new appointment or exam. **Planning to fix this in the future.**

### Possible Future Improvements

- User logging and profiling
- Improved Security
- Design overhaul
- Patient's inheritance notification system (We design the database having in mind this future update)





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## Conclusions

Vivere is an interesting application that could easily appeal to the public. With an original design and fresh, innovative ideas it could very well become a must-have health assistant for everyone.