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| **Archive 18**  **Software Requirements Specification**  **Document**  **HealthQ** |

**DOCUMENT VERSION <1.0>**

**22.12.2024**

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**DOCUMENT HISTORY**

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| --- | --- | --- | --- |
| **Date** | **Version** | **Document Revision Description** | **Document Author** |
| 22.12.2024 | 1.0 | This is core of our SRS document, that may be modified later | Yushkevych A |
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**APPROVALS**

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| **Approval Date** | **Approved Version** | **Approver Role** | **Approver** |
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**Project Plan:  HealthQ**

1. **Introduction**

This document contains project plan of “HealthQ” system. Responsible developers: Yushkevych A.I. & Shlomiak D.V.

This document intendent to be read by current developers and our customers (examinators). The laid out plan will contain functional and non-functional requirements to the system, out goals, schedule and technologies which will be used during development.

1. **Overview**

The purpose of the system is providing convenient and robust solution for hospitals, that want to automate process of conducting surveys for their patients. This system will allow administrators and doctors to create and edit questionnaires, which doctors can send to their patients. Patients will be met with friendly and pleasant interface. They will answer questions in the questionnaire and then system will send results to the doctor, apply some summary of survey and provide some suggestions on what to do next if needed. The system will reduce time spend on communication between doctor and patient either it is present in form of offline meetings or email exchange. Also, it would help with organizing whole ‘questionnaire’ process, centralizing it and creating convenient, simple and clear procedure.

* 1. **Customers**

Hospitals.

* 1. **Users**

1. Administrators:

* Have access to all users’ info.
* Set up default settings for certain questionnaires.
* Manage access level of users: patient, doctor, administrator

1. Doctors:

* Doctors should be able to add new and edit predefined questionnaires.
* Doctors should be able to see info about only their patients.
* Doctors should be able to assign questionnaires.

1. Patients:

* Patients should be able to take surveys.
* Patients and doctors should be able to communicate with each other (patients with their doctors and doctors with their patients).
  1. **Functionality**
* The doctor determines the questionnaire and the time and period when the patient should take it, for example, daily for a month. For example, postoperative care through surveys. After operations, it is necessary to conduct a survey of patients in order to determine the success of recovery. Doctor compiled a questionnaire prescribes a specific patient.
* The doctor may prescribe several questionnaires.
* Basic questions for all surveys from a specific category or from specific surgeries can be fixed at the hospital level and can only be changed by the administrator. The doctor can only add and change their questions depending on the case.
* The doctor can save his questionnaire as a template in order to reuse it in case of such an operation.
* Support various types of surveys - initial at registration, periodic survey after surgery, survey in the hospital.
* The patient can take the survey himself or the doctor can fill it out.
* The file of results gets to the doctor. There are critical questions (for example, pain level 10 out of 10), after which the system signals problems.
* Through the application, the doctor can view the results and take certain actions - for example, change the list of medicines depending on the patient's condition.
* The system itself prompts recommendations to the doctor.
* The patient enters his data and sees the progress of his condition, can ask the doctor about something additionally, sees changes (messages) in case of changes in medications.
  1. **Platform**

It will be launched as a Web-based application.

* 1. **Development Responsibility**
* Yushkevych Andrii will be responsible for:
* Shlomiak Danylo will be responsible for:

1. **Functional Requirements**
   1. Dynamic assessment flow: The system should support data collection in the form of a questionnaire and allow questions to be adapted depending on the user's answers (for example, if there is a temperature - to an additional set of questions).
   2. Customization: The ability to customize questions for specific use cases can be provided, including support for extended FHIR, which allows you to address the limitations of standard functionality.
   3. Integration with third-party platforms: The system should be designed with the possibility of integrating with other platforms in the future, in accordance with HL7 standards, in particular for the exchange of data on treatment plans, clinical assessments, observations and surveys.
   4. Dynamic content query:

* Implement mechanisms that select the enableWhen rule, which allows you to include questions based on answers to other questions.
* Support simple operators (exist, <, >, =) and logical operations (AND, OR) to form conditional queries.
  1. Advanced Features:
* Provide control over the display of elements (tables, read-only values, closed answers, multi-column drop-down lists).
* Develop formulas for conditional display of question elements.
* Introduce the ability to pre-fill forms with data from the client system.
  1. Data Conversion:
* Define a mechanism for converting completed question responses into a collection of observations or other resources.
  1. Information Processing:
* Implement mechanisms for managing more complex workflows using PlanDefinition and Task or other mechanisms such as CDSHooks.

1. **Deliverables**

Our team will deliver the following during the course of development:

* Product design
* Development document
* Source code

1. **Scheduling and Estimates**

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| **Milestone** | **Description** | **Release Date** | **Release Iteration** |
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1. **Technical Process**

The following languages and technologies would be used to develop application within the stipulated time period:

Front-end development: Angular, HTML, CSS.

Back-end development: ASP.Net Core, Postgresql.