User Stories to Develop

**US03:**

* 1. **User Story Description**

As a receptionist of the laboratory, I want to register a client.

**1.2. Specifications and Clarifications**

From the Specifications Document:

“In case of a new client, the receptionist registers the client in the application.”

“To register a client the receptionist needs the client’s citizen card number, National Healthcare Service (NHS) number, birth date, sex, Tax Identification number (TIF), phone number, e-mail and name.”

From the client clarifications:

(…)

**1.3. Acceptance Criteria**

AC1: The client must become a system user. The "auth" component available on the repository must be reused (without modifications).

**1.4. Found out Dependencies**

No dependencies were found.

**1.5. Input and Output Data**

**Input Data:**

* **Typed Data:** (name, citizen card number, phone number, email, TIF number, NHS number, sex, birth date);
* **Selected Data:** (…)

**Output Data:**

* Success or Unsuccess of the operation.

**1.6. System Sequence Diagram**

(…)

**US07:**

* 1. **User Story Description**

As an administrator, I want to register a new employee.

**1.2. Specifications and Clarifications**

From the Specifications Document:

From the client clarifications:

* **Question:** “What kind of information does the company store about their employees?”

**Answer:** All the roles that exist in the Many Labs company are characterized by the following attributes: Employee ID, Organization Role, Name, Address, Phone Number, E-Mail and Standard Occupational Classification (SOC) code.

The Specialist Doctor has an additional attribute: Doctor Index Number.

**1.3. Acceptance Criteria**

AC1: Each user must have a single role defined in the system. The "auth" component available on the repository must be reused (without modifications).

**1.4. Found out Dependencies**

No dependencies were found.

**1.5. Input and Output Data**

**Input Data:**

* **Typed Data:** (employee ID, organization Role, name, address, phone number, e-mail and standard occupational classification (SOC) code);
* **Selected Data:** (…)

**Output Data:**

* Success or unsuccess of the operation.

**1.6. System Sequence Diagram**

(…)

**US08**

* 1. **User Story Description**

As an administrator, I want to register a new clinical analysis laboratory stating which kind of test(s) it operates.

**1.2. Specifications and Clarifications**

From the Specifications Document:

* “All Many Labs clinical analysis laboratories perform clinical blood tests, and a subset of these laboratories also performs Covid-19 tests.”

From the client clarifications:

* **Question:** What are the data that characterize a clinical analysis laboratory?
  + **Answer:** Each clinical analysis laboratory is characterized by the following attributes: Laboratory ID, name, address, phone number and TIN number.
* **Question:** Is there a maximum limit of types of tests a clinical analysis laboratory can operate?
  + **Answer:** No.
* **Question:** Are the test types in US8 typed in or selected from those that the program has?
  + **Answer:** The test types are selected from a list.
* **Question:** Should the employees be allocated to the clinical lab in which they work? Or, for example, can one medical lab technician work in more than one clinical analysis laboratory?
  + **Answer:** Each Receptionist and each Medical Lab Technician can work in any Clinical Analysis Laboratory of the Many Labs network.
* **Question:** Are two clinical analysis laboratories with the same attributes allowed to exist?
  + **Answer:** Only the name of two clinical analysis laboratories can be the same.

**1.3. Acceptance Criteria**

* AC1: A clinical analysis laboratory must always perform clinical blood tests
* AC2: Laboratory ID has 5 alphanumeric characters
* AC3: Name is a string with no more than 30 characters
* AC4: Address is a string with no more than 30 characters
* AC5: Phone number has 11 digit numbers
* AC6: TIN number has 10 digit numbers
* AC7: A clinical analysis laboratory cannot be registered without all its attributes
* AC8: All types of test are performed by the lab
* AC9: Only the name of two clinical analysis laboratories can be the same

**1.4. Found out Dependencies**

There is a dependency to “US009 Specify a new type of test and its collecting methods” since at least a test type must exist in order to be performed in a clinical analysis laboratory.

**1.5. Input and Output Data**

**Input Data**

* + **Typed Data:** LaboratoryID, name, address, phone number, TIN number
  + **Selected Data:** Test type(s)

**Output Data**

* + List of existing test types
  + (In)Success of the operation

**1.6. System Sequence Diagram**

(…)

**US09:**

* 1. **User Story Description**

As an administrator, I want to specify a new type of test and its collecting methods.

**1.2. Specifications and Clarifications**

From the Specifications Document:

* “Typically, the client arrives at one of the clinical analysis laboratories with a lab order prescribed by a doctor. Once there, a receptionist asks the client’s citizen card number, the lab order (which contains the type of test and parameters to be measured), and registers in the application the test to be performed to that client.”
* “Many Labs performs two types of tests. Each test is characterized by an internal code, an NHS code, a description that identifies the sample collection method, the date and time when the samples were collected, the date and time of the chemical analysis, the date and time of the diagnosis made by the specialist doctor, the date and time when the laboratory coordinator validated the test, and the test type (whether it is blood test or Covid test).”

From the client clarifications:

* **Question:** Does a type of test holds any attribute besides its name and collecting methods?
  + **Answer:** The attributes for a new test type are: description, collecting method and each test type should have a set of categories. Each category should be chosen from a list of categories. Each category has a name and a unique code. There are no subcategories. There exists only one collection method per test type.
* **Question:** Are the collecting methods stored simpled as a word or a sentence, or does it also must contain its description, and/or another attributes?
  + **Answer:** To make a Covid test you need a swab to collect a sample. To make a blood test you need sample tubes and a syringe.   
    When the administrator (US9) specifies a new type of test, the administrator also specifies the method to collect a sample. The administrator introduces a brief description for specifying the collecting method. There exists only one collection method per test type.
* **Question:** Are there any different collecting methods other than the ones currently known? Which ones?
  + **Answer:** Each collecting method is associated with a test type. Whenever a test type is created a collecting method should be defined.

**1.3. Acceptance Criteria**

* AC1: Code has five alphanumeric characters.
* AC2: The code is not automatically generated.
* AC3: The administrator introduces a brief description for specifying the collecting method.
* AC4: Description is a string with no more than 15 characters.
* AC5: Collecting method is a string with no more than 20 characters.
* AC6: Each category has a name and a unique code. There are no subcategories.
* AC7: There exists only one collection method per test type.
* AC8: Each collecting method is associated with a test type.
* AC9: Whenever a test type is created a collecting method should be defined.

**1.4. Found out Dependencies**

No dependencies were found.

**1.5. Input and Output Data**

**Input Data**

* + **Typed Data:** Code, description, collecting method
  + **Selected Data:** Categories

**Output Data**

* + (In)Success of the operation

**1.6. System Sequence Diagram**

(…)

**US10:**

* 1. **User Story Description**

As an administrator, I want to specify a new parameter and categorize it.

**1.2. Specifications and Clarifications**

From the Specifications Document:

* “Typically, the client arrives at one of the clinical analysis laboratories with a lab order prescribed by a doctor. Once there, a receptionist asks the client’s citizen card number, the lab order (which contains the type of test and parameters to be measured), and registers in the application the test to be performed to that client.”
* “Blood tests are frequently characterized by measuring several parameters which for presentation/reporting purposes are organized by categories. For example, parameters such as the number of Red Blood Cells (RBC), White Blood Cells (WBC) and Platelets (PLT) are usually presented under the blood count (Hemogram) category.”
* “Covid tests are characterized by measuring a single parameter stating whether it is a positive or a negative result.”
* “Despite being out of scope, the system should be developed having in mind the need to easily support other kinds of tests (e.g., urine). Regardless, such tests rely on measuring one or more parameters that can be grouped/organized by categories.”

From the client clarifications:

* **Question:** What is the data that characterize a parameter? Should we follow the same data as the parameter category, for example, would each parameter have its own code, description and NHS identifier?
  + **Answer:** Each parameter is associated with one category. Each parameter has a Code, a Short Name and a Description.
* **Question:**  What is the information related to a Parameter Category?
  + **Answer:** Each category has a name and a unique code. There are no subcategories.

**1.3. Acceptance Criteria**

* **AC1:** Code is unique and has five alphanumeric characters.
* **AC2:** Short name is a string with no more than 8 characters.
* **AC3:** Description is a string with no more than 20 characters.

**1.4. Found out Dependencies**

There is a dependency to “US11 Specify a new parameter category” since at least a parameter category must exist to classify the parameter being created.

**1.5. Input and Output Data**

**Input Data**

* + **Typed Data:** Code, short name, description
  + **Selected Data:** Parameter category

**Output Data**

* + (In)Success of the operation

**1.6. System Sequence Diagram**

(…)

**US11:**

**1.1. User Story Description**

As an administrator, I want to specify a new parameter category.

**1.2. Specifications and Clarifications**

From the Specifications Document:

• “Blood tests are frequently characterized by measuring several parameters which for presentation/reporting purposes are organized by categories. For example, parameters such as the number of Red Blood Cells (RBC), White Blood Cells (RBC) and Platelets (PLT) are usually presented under the blood count (Hemogram) category.”

• “Regardless, such tests rely on measuring one or more parameters that can be grouped/organized by categories.”

From the client clarifications:

• Question: What are the data that characterize a parameter category?

• Answer: Simply consider a code, a description and an NHS identifier

• Question: What are the business rules applicable to such data?

• Answer: …

**1.3. Acceptance Criteria**

• AC1: Code must be unique having 4 to 8 chars

• AC2: Description cannot be empty and has, at maximum, 40 chars

• AC3: NHS identifier is not mandatory

**1.4. Found out Dependencies**

No dependencies were found.

**1.5. Input and Output Data**

Input Data

• Typed data: code, description and NHS identified

• Selected data: (none)

Output Data

• (In)Success of the operation

**1.6. System Sequence Diagram**

(…)

**US05:**

* 1. **User Story Description**

As a medical lab technician, I want to record the samples collected in the scope of a given test.

**1.2. Specifications and Clarifications**

From the Specifications Document:

All the tests (clinical blood tests and Covid-19 tests) performed by the network of laboratories are registered locallyby the medical lab technicianswho collectthe samples. The samplesare sent daily to the chemical laboratory where the chemical analysesare performed,andresultsobtained. When sampling (blood or swab) the medical labtechnician records the samplesin the system, associating the sampleswith the client/test,and identifying each sample with a barcode that is automatically generated using an external API.

From the client clarifications:

* **Question:** What kind of attributes should a sample have?
  + **Answer:** Each sample is associated with a test. A sample has only one attribute, a barcode number (UPC) that is a sequential number and is automatically generated by the system. Each sample has a unique barcode number.
  + In US5, the medical lab technician checks the system and see all tests for which there are no samples collected. The medical lab technician selects a test and the system asks for the number of samples to collect.
* **Question:**   Can a test have more than one sample?
  + **Answer:** Yes.
* **Question** : We didn't fully understand what will the API do in this US, so here's out interpretation from the US, correct us if we're wrong please: The API will be generated randomly and the API is an attribute from the sample.
  + **Answer:** The API will be used to generate/print barcodes.
  1. **Acceptance Criteria**
* **AC1:** The system should support several barcode APIs. The API to use is defined by configuration.
* **AC2: :** Each sample is associated with a test.
* **AC3:** A sample has only one attribute, a barcode number (UPC) that is a sequential number and is automatically generated by the system.
* **AC4:** Each sample has a unique barcode number.
* **AC5:** The medical lab technician checks the system and see all tests for which there are no samples collected.
* **AC6:** The medical lab technician selects a test and the system asks for the number of samples to collect.
* **AC7:** A test can have more than 1 sample.
* **AC8:** The API will be used to generate/print barcodes.
  1. **Found out Dependencies**
* There is a dependency to “US009 Specify a new test type” since at least a test type must exist to classify the sample(s) being created;
* There is a dependency to “US007 Register a new employee” since at least a Medical Lab technician should be register in order to create a sample.

**1.5. Input and Output Data**

**Input Data:**

* **Typed Data:** Number of samples that the actor wishes to create.
* **Selected Data:** List of tests (without a sample(s)).

**Output Data:**

* Success or Unsuccess of the operation.

**1.6. System Sequence Diagram**

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