NEUROLOGICAL CLINICAL TRIAL DATABASE

USER STORIES:

Caption:

- Actor, action, achievement;
- Types of users: Doctor, Administrator, Sponsor, Patient and Engineer

Name:	**A patient has a disease and applies the clinical trial**	**A patient applies to a trials and wants to see if they have been accepted**	**Patient sees all of their reports**
As a:	Patient	Patient	Patient
I want:	To receive the new treatment	To know if I have been accepted to the trial	To see all my reports
So that:	A cure can be found	I can be cured	How my disease has evolved
When:	When the symptoms appear and the diagnosis is made		
Who:	Patient	Patient	Patient
Where:	Hospital/Clinic		
What:	Enter the clinical trial		
Name:	**Doctor adjusts the treatment**	**Doctor makes the reports**	**Use the investigational products for the clinical trial**
As a:	Doctor	Doctor	Doctor
I want:	Discover the correct treatment	Follow up of the patient's disease	Use the investigational products
So that:	The patient suffering from a disease can be cured	To know if the patient's disease has improved	I can see if a cure for that disease has been found
When:		Every two weeks	
Who:	Patient		
Where:	Hospital		
What:		Lab results and medical history	
Name:	**As a sponsor, I want to see and check the reports**	**As a sponsor, I want to invest in a clinical trial**	**Update my investment**
As a:	Sponsor	Sponsor	Sponsor
I want:	See and check the reports	Invest in a clinical trial	To update my investment and invest more
So that:	I can decide if my investment is worthy or not	It can be done	The trial can keep going
When:			
Who:	Sponsor		

Where:			
What:		Machines and drugs	
Name:	**As an administrator I I control the investments**	**The patient has to fulfil the requirements for the clinical trial**	**I have to eliminate patients from the trials once they don't fulfil the requirements**
As a:	Administrator	Administrator	Administrator
I want:	I want to control the investment	To find patients for the trial	To delete patients from a trial
So that:	We can check whether or not we have enough money to continue with the trial	We can investigate	They aren't in a trial that is not useful for them any more
When:		When we find patients	
Who:			
Where:		Administration office	
What:		The patient has to fulfill the requirements for the clinical trial	
Name:	**As an engineer, I create the investigational products**	**I want to maintain the investigational products**	
As a:	Engineer	Engineer	
I want:	Create machines and drugs that can help the clinical trial.	Maintain and improve the machines and drugs if necessary.	
So that:	The trials have enough resources to be successful.	The machines aren't broken and the drugs are efficient.	
When:		When needed	
Who:			
Where:	Engineers' laboratory	Engineers' laboratory	
What:			

USER CASES:

- Should be 5 types of menus, one for doctors, one for the administrator, one for patients and another one for the sponsors and one for the engineer

User sign up	
Name:	Sign up
Preconditions:	- Existence of database
Primary actors:	Admin, doctor, sponsor, engineer and patient
Main scenario:	1. Fill required data in each case 2. Add password
Extended scenario: (1)	

User logs in	
Name:	Log in
Preconditions:	- Existence of database
Primary actors:	Admin, doctor, sponsor, engineer and patient
Main scenario:	3. Add email 4. Add password 5. Log in
Extended scenario: (1)	

Administrator adds a Clinical Trial	
Name:	(1) Create Clinical Trial
Preconditions:	- Log in
Primary actors:	Admin
Main scenario:	1. From the main menu, an admin chooses to add a clinical trial 2. Fill data 3. Go back to main menu
Extended scenario: (1)	1. Set requirements of clinical trial

Administrator adds himself or another administrator	
Name:	(2) Add Admin
Preconditions:	- Log in
Primary actors:	Admin
Main scenario:	1. From the main menu, an admin chooses to add a himself or another admin 2. Fill in required data

	3. Go back to main menu
Extended scenario: (3)	1. Set name of admin 2. Set email of admin 3. Set phone of admin

Show all patients	
Name:	(3) Print all patients
Preconditions:	- Log in
Primary actors:	Admin, Doctor
Main scenario:	1. From their main menus, an admin or doctor choose the option to print a list of all patients stored in the database 2. A list is shown 3. Go back to main menu
Extended scenario: (1)	1. The list can be empty

Show all administrators	
Name:	(4) Print all admins
Preconditions:	- Log in
Primary actors:	Admin
Main scenario:	1. From the main menu,, an admin chooses the option to print a list of all admins stored in the database 2. A list is shown 3. Go back to main menu
Extended scenario: (1)	1. The list can be empty

Show budget of a Clinical Trial	
Name:	(5) Print the budget of a CT
Preconditions:	- Log in
Primary actors:	Admin
Main scenario:	1. From the main menu, an admin chooses to see the budget of a clinical trial 2. Budget is show 3. Go back to main menu
Extended scenario: (0)	

Delete a patient from a Clinical Trial	
Name:	(6) Delete Patient
Preconditions:	- Log in - A patient has to preexist in a CT
Primary actors:	Admin
Main scenario:	1. From the main menu, an admin chooses to delete a patient from a CT 2. Can select which patient introducing its id 3. Go back to main menu
Extended scenario: (0)	

Administrator assigns patient to trial	
Name:	(7) Assign patient to trial
Preconditions:	- Log in - Patient must exist in the database
Primary actors:	Admin
Main scenario:	1. From the main menu, an admin chooses the option: assign patient to trial 2. Add the information required 3. The patient is assigned into the trial
Extended scenario: (2)	1. Set patient id 2. Set trial id

See success rate of a CT	
Name:	(8) Show SuccessRate
Preconditions:	- Log in - A previous study of how the treatments are working, meaning if the patients are cured or not.
Primary actors:	Admin, Sponsor
Main scenario:	1. From their main menus, an admin or a sponsor choose to see the success rate of a clinical trial 2. Go back to main menu
Extended scenario: (0)	

Administrator updates the state of Trial's Applications	
Name:	(9) Update Trial's Application
Preconditions:	- Log in - A patient has to apply first to a CT
Primary actors:	Admin
Main scenario:	1. From the main menu, an admin can see the trial's applications done by patients.

	2. Then decides if it can be approved or not depending on the requirements. 3. Go back to main menu
Extended scenario: (0)	

Create/Add a doctor	
Name:	(10) Add Doctor
Preconditions:	- Log in
Primary actors:	Doctor
Main scenario:	1. From the main menu, a doctor add himself or another doctor in a clinical trial 2. Fill in required data 3. Go back to main menu
Extended scenario: (4)	1. Add name 2. Add email 3. Add phone 4. Add specialisation

Show all doctors	
Name:	(11) Print all doctors
Preconditions:	- Log in
Primary actors:	Doctor
Main scenario:	1. From the main menu, a doctor chooses to print a list of all doctors. 2. Go back to main menu
Extended scenario: (1)	1. The list can be empty

A doctor is assigned to a patient	
Name:	(12) Assign Doctor to Patient
Preconditions:	- Log in - Both a doctor and a patient must preexist in the database
Primary actors:	Doctor
Main scenario:	1. From the main menu, a doctor chooses to assign a doctor to a patient 2. Then selects which doctor and patient by their ids. 4. Go back to main menu
Extended scenario: (0)	

Update specialisation of a doctor	
Name:	(13) Update doctor
Preconditions:	- Log in - A doctor must preexist in the database
Primary actors:	Doctor
Main scenario:	1. From the main menu, a doctor chooses to change its specialisation 2. Then changes into the new specialisation 3. Go back to main menu
Extended scenario: (0)	

Doctor creates a report	
Name:	(14) Create Report
Preconditions:	- Log in - Patient must preexist - Doctor must preexist
Primary actors:	Doctor
Main scenario:	1. From the main menu, a doctor chooses to make a report about a patient 2. Fill in required data 3. Go back to main menu
Extended scenario: (2)	1. Add medical history 2. Add treatment

Show all reports of a patient	
Name:	(15) Print all reports of a patient
Preconditions:	- Log in - Patient and report must preexist
Primary actors:	Sponsor, Patient
Main scenario:	1. From their main menus, a sponsor o patient choose to print a list of all reports of a specific patient (in case of the patient their on reports) 2. A list of reports is shown 3. Go back to main menu
Extended scenario: (0)	

A doctor assigns a report to a patient	
Name:	(16) Assign Report to Patient
Preconditions:	- Log in - Patient and report must preexist
Primary actors:	Doctor
Main scenario:	1. From the main menu, a doctor chooses to assign a report to a patient 2. Then selects which report and patient by their ids.

	3. Go back to main menu
Extended scenario: (0)	

A doctor updates if a patient is cured or not	
Name:	(17) Update Patient
Preconditions:	- Log in - Patient must preexist
Primary actors:	Doctor
Main scenario:	1. From the main menu, a doctor chooses to update information about the health of a patient 2. The selects if it is cured or not 3. Go back to main menu
Extended scenario: (0)	

A doctor chooses an investigational product	
Name:	(18) Choose Inv.Product
Preconditions:	- Log in - Inv.Product must preexist
Primary actors:	Doctor
Main scenario:	1. From the main menu, a doctor chooses to select an inv. product. 2. Then chooses which inv. product 3. Go back to main menu
Extended scenario: (0)	

Patient apply to a Clinical Trial	
Name:	(19) Apply to trial
Preconditions:	- Trial mut preexist - Have a neurological disease
Primary actors:	Patient
Main scenario:	1. From the main menu, a patient chooses to apply to a clinical trial 2. Fill in the required data 3. Go back to the main menu
Extended scenario: (8)	1. Add name 2. Add email 3. Add phone 4. Add blood type 5. Add disease 6. Add date of birth 7. Add photo 8. Add if they are cured

Show the state of the trial's application

Name:	(20) Show the state of the trial's application
Preconditions:	- Log in - Patient exists in the database
Primary actors:	Patient
Main scenario:	1. From the main menu, the patient chooses the option of get the state request 2. A table with state requests is shown 3. Go back to the main menu
Extended scenario: (0)	

Show all the clinical trials	
Name:	(21)Print all trials
Preconditions:	- Log in
Primary actors:	Patient, sponsor
Main scenario:	1. From the main menu, the actor chooses the option of show all clinical trials 2. A list with the clinical trials is shown 3. Go back to the main menu
Extended scenario: (1)	1. The list can be empty

As a sponsor I want to add myself or another sponsor	
Name:	(22) Add sponsor
Preconditions:	- Log in
Primary actors:	Sponsor
Main scenario:	1. From the main menu, the sponsor chooses the option: add sponsor. 2. The sponsor fills in the data required 3. A new sponsor is added
Extended scenario: (2)	1. Add name 2. Add email 3. Add phone 4. Add card number

Sponsor wants to make an investment	
Name:	(23) Make an investment
Preconditions:	- Existence of a clinical trial - Sponsor exist in database - Log in
Primary actors:	Sponsor
Main scenario:	1. From the main menu, client chooses to add a report 2. Add investment 3. Show message of validated save and all information 4. Save and return to main menu
Extended scenario: (1)	1. Add amount of money that is being invested

Sponsor updates its investment

Name:	(24) Update investment
Preconditions:	- Existence of clinical trial - Existence of previous investment - Log in
Primary actors:	Sponsor
Main scenario:	1. From the main menu the sponsor chooses to update their investment. 2. The sponsor must fill in the requirements 3. The investment is updated
Extended scenario: (4)	1. Add clinical trial id 2. Add sponsor id 3. Add amount invested 4. Press update

Add an engineer	
Name:	(25) Add engineer
Preconditions:	- Log in
Primary actors:	Engineer
Main scenario:	1. From the main menu, engineer chooses the option of adding an engineer 2. Fill in the required data 3. A new engineer is added 4. Go back to main menu
Extended scenario: (3)	1. Add name 2. Add phone 3. Add email

Show all the engineer	
Name:	(26) Print all engineers
Preconditions:	- Log in
Primary actors:	Engineer
Main scenario:	1. From the main menu, choose the option print all engineers 2. A list with all the engineers is displayed 3. Go back to main menu
Extended scenario: (1)	1. The list can be empty

Engineer creates investigational products	
Name:	(27) Add investigational product
Preconditions:	- Log in
Primary actors:	Engineer
Main scenario:	1. From the main menu engineer chooses the inv.product that has to be created 2. A new inv. product is added 3. Return to main menu

Show all investigational products	
Name:	(28) Print all Inv.Products
Preconditions:	- Log in
Primary actors:	Engineer
Main scenario:	1. From the main menu, choose the option print all inv.products 2. A list with all inv.products is displayed 3. Go back to main menu
Extended scenario: (1)	1. The list can be empty

Print a user into an XML file	
Name:	(29) Print user to XML
Preconditions:	- User must exist in the database
Primary actors:	Admin, doctor, sponsor, engineer and patient
Main scenario:	1. From the main menu, the user chooses the option 2. The users' information is saved as an XML file 3. Go back to main menu
Extended scenario: (0)	

Load user from XML file	
Name:	(30) Load user from XML
Preconditions:	- User must exist in the database - User must be stored in XML file
Primary actors:	Admin, doctor, sponsor, engineer and patient
Main scenario:	1. From the main menu, the user chooses the option load its information stored in a XML file 2. Information is shown 3. Go back to main menu
Extended scenario: (0)	

REQUIREMENTS

Functional requirements:

1. Administrator, doctor, patient, sponsor and engineer have to log in in order to have access to the system
2. Passwords have to at least contain a capital letter, a number, and a lowercase letter.
3. Clinical trials can be only be created and controlled by a single administrator
4. There must be an existent clinical trial in order for the patient to apply to the clinical trial
5. Administrator can add patients to the clinical trial once their application has been approved
6. A sponsor can make an investment
7. Administrator can control the amount of money invested in order to budget the trial.
8. Engineer will create investigational products specific for a clinical trial
9. Doctor will use/indicate the investigational products
10. A treatment can be assigned to a patient
11. Follow up of the patient is done: reports
12. Reports are stored in the database of the system
13. Doctor will make the reports
14. Sponsors have access to the reports to decide if they keep investing and they also see a success rate (there should be at least one report in the database)
15. Patients have access to all of their own reports
16. Engineer can modify the investigational products or fix a machine
17. Doctor can modify information about a patient

Non-functional requirements:

1. Response must be done in under 2s

TRANSABILITY MATRIX

- X mean yes
- All columns and rows must have at least one X
- It is stored in an excel as it is too big