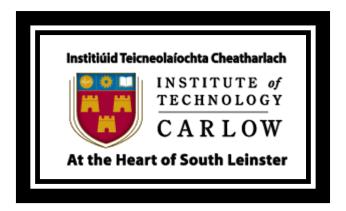# Your Cystic Fibrosis Application Specification

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November 6, 2017
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Specification

Who is it for:

The application is aimed at children with cystic fibrosis in Ireland between the ages of 12 to 18 and their doctors. The reason this age range has been selected is because intervention through these years can lead to better outcomes for the patient's overall health.

Now a CF patient between the selected age range will only see their team of doctors every three months. The only exception for this is if they are very ill as there is a shortage of suites that can accommodate patients with CF.

What is measured:

I will be measuring lung functionality and also, I will keeping track of food Intake.

Why is it measured:

The reason lung functionality is being measuring each week is to give their doctor a better picture of what has been going on over the three-month period rather than only basing it on their previous appointment three months ago. I have experience of this patient's going up every three months and their lung functionality progressively decreasing and the doctor only able to use the patient's previous Pulmonary function tests (PFTs) from three months ago. I believe that the data that could be collected over these three-month periods would be of great benefit for both patient and doctor.

Food is another important aspect of a patient suffering from CF as it can be hard for the patient to maintain or even gain weight and in turn this directly affects how active the patient can be. The dietitian gives a food journal that they are expected to fill in each week. The application could take what a patient eats day by day and then the dietitian could view this information.

How will it be measured:

I will measure the lung functionality by using the mobiles sensors to accurately measure walking patterns. The information that is gathered from this should accurately measure pulmonary function.

I want to keep the food journal as simple as possible so I will break it into the three main meals breakfast, lunch, and dinner. I haven't decided if I will get the patient to input completely what they have ate or if I will create a database of food that they could simply select from the list under the three headings above.

Technology required to develop it:

The technologies that I will need is a mobile device (android, ios) and possibly a smart watch.

I will develop the application using either android studio (I have previous experience with), ionic or phonegap (I have previous experience with)

For the backend I will use either firebase, SQL, or Heroku.