I. INTRODUCTION

1.1. Background

Heart Failure (HF) is one of the diseases categorized as cardiovascular disease (CVD), and first described as an emerging pandemic since 1995. An estimation of 64,3 million people is living with HF, and the number will keep increasing due to growing numbers of population and the aging population around the world (Groenewegen et al, 2020). Due to the severity of HF, health monitoring is a must for each of the HF patients in order to maintain the patient's health condition.

HF is the most common CVD case in Lira Medika hospital, with cases ranging around patients aged 55 years old and above. Based on the Lira Medika clinical immersion that was done by our team, several problems were found with patients with HF. The first problem is that most of the patients with HF will only come to the hospital when they realize that they are already at the latter stage. This can be caused by the underestimation of the symptoms, or they prefer to consult with nearby nurse clinics that may or may not give out sufficient treatments. The second problem is that most patients prefer out-patient care, which means they have to self-manage themselves at home. This can caused issues that patients might encounter while in self-care process, such as no daily medical report to support the doctor in their dosing, no active monitoring, false diet information might be given to the patient, the feeling of uneasiness when dealing with hospital procedure for routine consultation, and potentially missed medication, especially patients with comorbids. Due to these problems, Lira Medika hospital requires a way for their doctors to solve several issues, such as having a medical data to support their decision in dosing, clarifying the false information and diet issues, having a track on missed medication and prevent it, and helping their patients to overcome their uneasiness when dealing with hospital's procedure for consultation session. By developing our mobile app named "Kembali Sehat", we can help Lira Medika hospital with their ongoing issues with HF patients. "Kembali Sehat" is a mobile application designed with the partnership of Lira Medika hospital to help their HF patients with the issues that are previously mentioned. There are four features that were developed into "Kembali Sehat", such as Medical record storing & sharing, Educational contents, Medication reminder & tracker, and Automated schedule booking. This research focused on the development medication reminder and tracker and educational content.

According to Fang et al. (2016), most of the non-adherence of the elderly people are caused unintentionally, often caused by their forgetfulness and carelessness as they age. Young adults could also forget their medication unintentionally due to their busy daily lives. Forgotten medications are proven to be fatal for the patients, hence why It is important to keep track of every medication consumed by the user, as one missed medication will significantly affect the schedule of other

medications. From this problem, the Medication reminder and Tracker feature are to be created and implemented into "Kembali Sehat". There are several applications that also have this similar feature, such as Halodoc, Glucose Buddy, and Mango Health. The Educational content feature is also a crucial feature in "Kembali Sehat", knowing that there is a lot of false information that the patients might follow in, and it is proven fatal as it can slow down the patient's recovery progress.

1.2. Scope of Research

Due to the Covid-19 pandemic, many hospitals were used to treat Covid-19 patients. This results in inadequate care for other patients, including HF patients. This self-management health monitor app is designed to assist HF patients in monitoring their own health and the symptoms. Two of four features that will be implemented in the "Kembali Sehat" self-management app are "Medication tracker & reminder" and "Educational Content" features. These features would tremendously help the patients in reminding them of their medication, track their past medications, and provide the patients with the right information, respectively.

1.3. Aim of Research

This research aimed to develop Medication Reminder and tracker, and the Educational Content feature in "Lira Medika" mobile app with the partnership with Lira Medika hospital. Development includes the general idea of how this feature would work, the design of the UI, and the codes for the feature. This research also aimed for the partial fulfillment of the MBKM program as EP for graduation.