

CHAPTER 1. INTRODUCTION

1.1. Background

Coronaviruses are a type of virus. There are many different kinds, and some cause disease. A newly identified coronavirus, SARS-CoV-2, has caused a worldwide pandemic of respiratory illness, called COVID-19. As of now, researchers know that the new coronavirus is spread through droplets released into the air when an infected person coughs or sneezes. The droplets generally do not travel more than a few feet, and they fall to the ground (or onto surfaces) in a few seconds — therefore physical distancing is effective in preventing the spread.

While maintaining physical distance, the government expect us to still maintain the economy and everyday lifestyle, this is of course having some problems with it, not all jobs and career can do it, like sports team, cooking, salesman, retailer, and many other jobs. The government did some precaution to minimize it, by reinstating new rules about total customer or visitor, only 25% maximum capacity of a restaurant or a tourist's attraction is allowed, and then the government even tried to have a nighttime rule which is ridiculous, because the virus did not start only at night.

The society cannot take this new norm that fast, the society needs to learn first, because it is considered new experience for all of us to have this big global pandemic. The government cannot expect the society to hold their economy while prevent more COVID-19 spreading. The society itself is afraid of risking their life and health exposed to COVID-19, because until now there is only assumption that a vaccine has been found, it is not yet fully tested and still on some progress and supervision by the government. The government still issued and recommend that we as the people should still staying at home and wait for the vaccine result, only go out on your need, not what you want.

One of the nowadays norm for now is staying safe outside home, because people already tired of staying home all the time, and its already passing one year mark that Indonesia got this virus for the first time. Many people still need to support their household while staying home, and for some of them, their business cannot go by staying home, they need to go to their office, or shop, or their

restaurant to work there. Even people in the office still need to buy something to eat. But at the expense and risking themselves into more physical contact outside, which can lead into getting corona virus.

Every time people buy something from outside, they need to wash their hands, wash or spray what their's goods before bringing it inside for family, its just becoming new norm and its tiring ourselves mentally and financially, because people now need to at least provide some simple hand-washer or alcohol spray wherever they are. This is where the technology should act and help people minimize those risk, because technology is being made to help people in their daily life. Even the simplest things can be replaced or enhance by technology for conveniency.

Currently, the development of Android-based software can be done by anyone. The advantage of other Android smartphones is that they have many additional technologies so that now they can not only be used for telecommunications equipment but also for other purposes. This case is not something trivial, because eating and working is essential for society, but they cannot just make a choice to choose health or wealth and sacrifice the other, there are many things that can help this kind of situation, not completely protected and perfect but it minimizes the risk and help society fulfill their basic needs.

This paper will describe an Android Application for the writer's thesis by using Android studio. The purposes of this application are mainly for minimizes physical contact during restaurant or any food stall interactions. If the customers are going to dine in, they can simply scan QR code in the desk to order, and if they are going to order a takeaway, there will be a special QR code just for take away order. The QR code will be scanned by the customer from their own phone, so the customer doesn't really need to touch the menu's book that has been touch by a lot of other customer, this way is already minimizes the risk, because desks and chairs are always cleaned by the worker after the customer are done.

1.2 Problem Identification

Based on the existing problems in the background, the author identified the problem listed as follow:

1. How to develop an Android mobile application to replace manual menu at restaurant?
2. How to implement the QR Code technology in E-Menu application?
3. How can E-Menu application help minimize rates of risk of getting corona virus?
4. How to input, update, delete menu's information to the database?

1.3 Research Purposes

The purposes of this research are listed as follow:

1. This research aims to develop an Android-based E-Menu application using QR Code.
2. This study aims to help customer and the restaurant's owner to minimize rates of risk of getting corona virus.
3. This research aims to make a manual order in restaurant become more self-services food order.
4. The developed application is intended to reduce physical contact in restaurant or any food stall.

1.4 Limitation of the Problem

E-Menu application that will be developed has the following limitations:

1. The application is only available on smartphones with Android OS version 5.0 (Lollipop) and above.
2. The application requires an internet connection.
3. The application's administrator role can only receive order from each table dine in or take away order.

1.5 Research Benefit

2	Design																	
3	Development																	

1.8 Writing Structure

This thesis is made to facilitate the writing of the final project. Thus, this thesis is divided into five chapters, with an explanation for each chapter, as follows:

CHAPTER I. INTRODUCTION

This chapter discusses the background of the research, problem identification, research purposes, limitations of the problem, benefits of the research, and research methodology.

CHAPTER II. REVIEW OF LITERATURE

This chapter discusses the basic theories that support this research and related works.

CHAPTER III. ANALYSIS AND DESIGN

This chapter discusses the author's research result, and the system analysis and design of the application to be created.

CHAPTER IV. IMPLEMENTATION

This chapter discusses the application implementation result, including Black-box testing.

CHAPTER V. SUMMARY, CONCLUSION, AND RECOMMENDATIONS

This chapter discusses this paper summary, conclusions that can be drawn, and recommendations for further development.