# PROJECT REPORT
# BUILDING A BASIC GEOMETRI
# SHAPE LIBRARY IN C

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12.02.0039

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**INFORMATICS ENGINEERING DEPARTMENT**

**FACULTY OF COMPUTER SCIENCE**

**SOEGIJAPRANATA CATHOLIC UNIVERSITY**

# APPROVAL AND RATIFICATION PAGE

## PROJECT REPORT
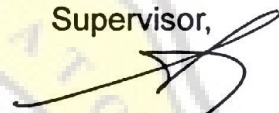
Building a Basic Geometry Shape Library in C

by

Yap, Aurel Gracella E – 12.02.0039

This project report has been approved and ratified by the Faculty of Computer Science on July, 14th 2016
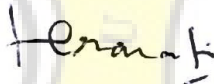
With approval,

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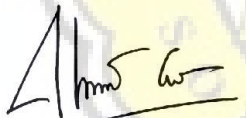Suyanto Edward Antonius, Ir.,M.Sc
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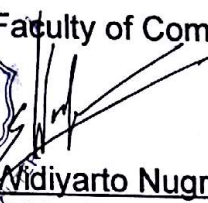
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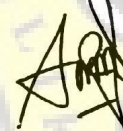
# STATEMENT OF ORIGINALITY

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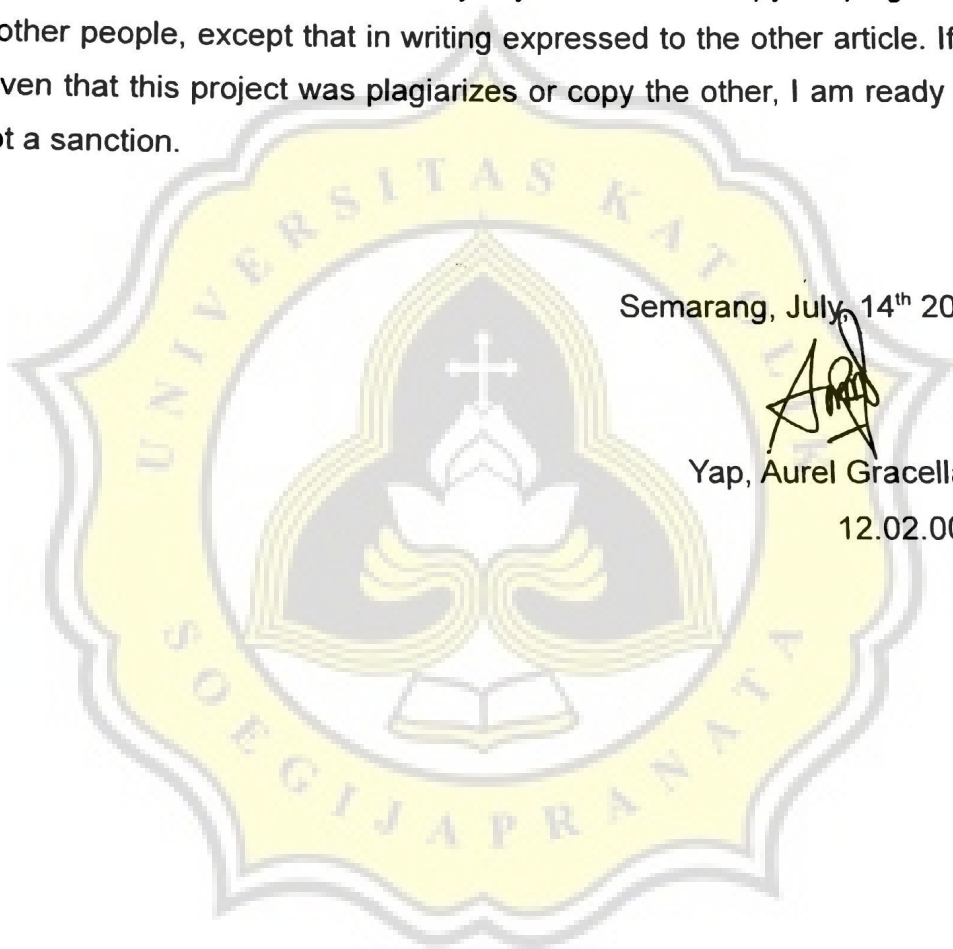
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# ABSTRACT

*This program based on Simple DirectMedia Layer of Borland Graphics Interface (SDL_bgi). It is used to help this program to compile the source code and display the result in new screen. This program based on library graphics.h. That library is need to help the process of drawing. When drawing a point, line or shape this program need some function that graphics.h owned.*

*This program build Two Dimension Graphic(2D) functions from the scartch. Its start from build point first, then a line, and a shape. When this program need to make a line, it will build based on a point. And when this program need to make a shape, it will build based on a line. If user want to add a new function besides the functions which are avaiable in this program, user can add in MyLine.c and MyTwoDimension.c. The containt of file MyLine.c are point functions and line functions. Then the containt of file MyTwoDimension.c is 2D shape functions.*

*The advantage of this program is that users can be helped to learn about 2D graphics. For example, user of this program is a student. Student will be helped when they need to know the graphics of some straight-line equations. Besides, this program can be developed into Three Dimension Graphics by user.*

*Keywords : Two Dimension Shape, Graphics in C, Straight-line equations, Slope-intercept, SDL_bgi.*

# PREFACE

This project is divided into six chapters. The first chapter explain about background, scope and objective of this final project. The second chapter explain about the SDL_bgi. It is a graph library to help this final project. For the basic formula of this program, this program used y=mx+b from straight-line equation formula.

The third chapter will explain about the functions in this final project. The fourth chapter is about analysis and design of this final project. In this chapter will explain how the program works and be explained by use case diagram and class diagram.

The fifth chapter explain about the implementation and testing of this program. This chapter will displayed some pieces of picture from the result of this final project. The sixth chapter will explain about conclution of this program.
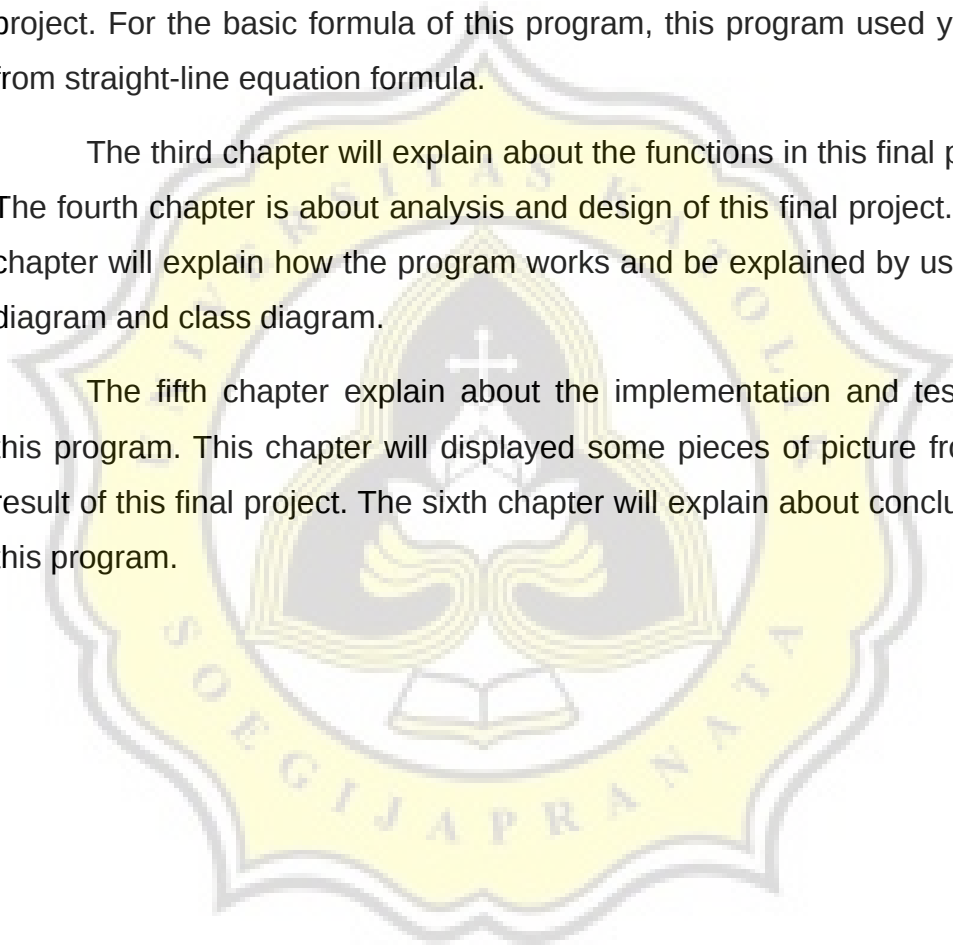
# TABLE OF CONTENTS

# TABLE OF FIGURES