CHAPTER 3

METHODOLOGY

3.0 INTRODUCTION

Rapid application development (RAD) is choosing as the methodology of the study because RAD is a highly interactive systems development approach. RAD attempts to reduce development times and the difficulty in understanding a system from a paper-based description. During development, it also specifies testing at multiple points.
Therefore, the products can be developed faster with higher quality. After the comparison of advantages and disadvantages, Rapid application development (RAD) is a perfect methodology to choose for this project. Below are briefly describes the four stages of RAD which is planning, user design, construction and cutover.

![Figure 3.1 RAD model graphic](image)

Figure 3.1 RAD model graphic
3.1 PROJECT FRAMEWORK

- Finalize project title
- Identify problem statement, objective and project scope
- Literature review on searching algorithm
- Identify searching algorithm to be applied, Boyer Moore Horspool (BMH) algorithm
- Literature review on character match percentage for accuracy

User Design
- Collect data from medical database
- Apply database in BMH algorithm
- Design BMH algorithm interface

Steps of BMH algorithm:
Step 1: Read data from user input
Step 2: Prepare preprocessing
Step 3: Prepare searching
Step 4: Display intended output

Construction
- Develop the Boyer Moore Horspool algorithm searching interface with database
- Develop calculation for analysis accuracy

Cutover
- Analysis testing for accuracy

Figure 3.2 Project Framework