CHAPTER 3
RESEARCH METHODOLOGY

3.1. GENERAL ELIMINATION
    In Guess The Hero project consists of 3 parts:
    1. Server Section.
    2. Client Section.
    3. Protocol Section

3.1.1. Server Section
    This section is useful to be the recipient and processor of data requested
    from the client. In this project using Java Socket Programming.

3.1.2. Client Section
    This section is useful for being an application processor. In this project
    using Java Socket Programming

3.1.3. Protocol Section
    This section is useful as an authentication protocol for Guess The Hero
    game project. In this project using Java Programming.
3.2. METHOD DETAIL

Detailed methods used to create this project are described as follows:

3.2.1. Server Section

This section discusses how the server works, and how the server interacts with the client. In the process of working the server, required a client that accesses to the server. If accessed by the client, the server will receive requests and process data requested by the client. In this project the server uses multithread. Multithread is useful to provide various sockets on the client, so the server can be accessed more than 1 client. Upon receiving the request and processing the requested data by the client, the server will return it to all clients. For example there are clients a, b, c that are accessible to a server. If client a sends an "abc" message, the server will receive and process the data and return it to all clients, so client a, b, c will see the "abc" message sent by client a.
3.2.2. Client Section

This section discusses how the client works, and how the client interacts with other servers and clients. To interact with other clients is a server. This server will eventually receive data from the client and return it to all clients connected to the server. For example there are clients a, b, c that are accessible to a server. If client a sends an "abc" message, the server will receive and process the data and return it to all clients, so client a, b, c will see the "abc" message sent by client a.

3.2.3. Protocol Section

generic username authentication protocols are used when clients access a server. Before accessing the server, the client will be prompted to enter the name of the client. If the client does not have a name then it is required to create a name in the place that has been provided. After entering the new name the client is allowed to connect to the server with the name.

Game protocol used to set the game in game. The game will start if there are 3 clients that have been connected. The game will start by giving a turn to the first client. The first client can open one of 9 boxes provided. When selected then the box will bring up a piece of a hero image, and pieces of this image also appears in other clients. After finished selecting the box cut, turn will be moved to the next client. Client can then select one of the box from 9 boxes that have been provided with the record can not select the box that has been opened. And so on. If one client understands the answer, the client writes in the provided textfield and will get a score if the answer matches. After that the game will start again with the box that closed and the image of a new hero.