**DESIGN OF THE KNOWLEDGE-BASED SYSTEM**

A process which is applied to design and develop a knowledge-based system in this research is called knowledge engineering as shown in FIG, 1. Knowledge engineer is a person who searches knowledge source, designs and selects development tools, develops, tests and adjusts the system before using in practical. The process of design system can describe in following:-

**user menu**

This menu used for this expert system as user interface and let the users to choose different option.

**inference engine**

The inference engine use for interactive work between database and user option selection.

**Knowledge Acquisition**

Knowledge acquisition is a process of acquiring, organizing and studying knowledge. In this research, the knowledge is acquired from culture and tourist agency for testing system.

**Knowledge Base Design**

The production of rule-based knowledge system representation it consists of list of rule, facts.

**Architecture of A tour and trave guide Knowledge-**

**based System**

The system contains 5 components which are user menu, inference engine, explanation module, knowledge acquisition unit, and knowledge base. It is shown in FIG, 1.This system is needed to support to manage the knowledge, such as creating and editing facts of cities and regions .Furthermore, it can explanation of facts .

USERS MENU

EXPLANATION MODULE

knowledge acquisition

knowledge base

User

FIG, 1.Expert system structural view