CHAPTER 4
ANALYSIS AND DESIGN

4.1 Analysis

Tour and travel packages are now too much, either using online models or offline models. Because too many choices of tours offered, it makes some people confused to determine the tour and travel packages both in terms of price, lenght of travel and the number of people who will leave on vacation.

To help people choosing tour packages that have benn too much of this then make a calculation application using the AHP method. In this method AHP requires criteria, where the criteria taken in this case is the price, the length of trip and minimum pax and alternatif data is data that has benn taken from the website www.yuktravel.com

The steps and formulas that AHP (Analytical Hierarchy Process) used in this method are :

1. Creating a matrix of criteria comparison with the value that has been inputted on the page search.php with data criteria price, duration of travel and minimum pax.
2. Finding the priority vektor weights by summing each cell column in the matrix column divided by the number of column in each cell.
3. Search for lamda

   Formula : Alpha Max = Signal Alpha / n

   n = many criteria
4. Look for Consistency Idex (CI)

   Formula : CI = Alpha Max / n-1

5. Finding Consistensy Ratio (CR), Consistensy Level is stated consistent when CR value < 0.1. the CR value can be searched using the formula derived from the Ratio Correction Table.

Table 4.1: Ratio Correction Table

n	1	2	3	4	5	6	7	8	9	10
R.I	0	0	0.58	0.9	1.12	1.24	1.32	1.41	1.45	1.49

The table above explains the number of criteria and what the value of each criterion, for example the number of criteria is 3 then the value is 0,58. This table is used to find the value of CR (Consistensy Ratio).

4.2 Desain

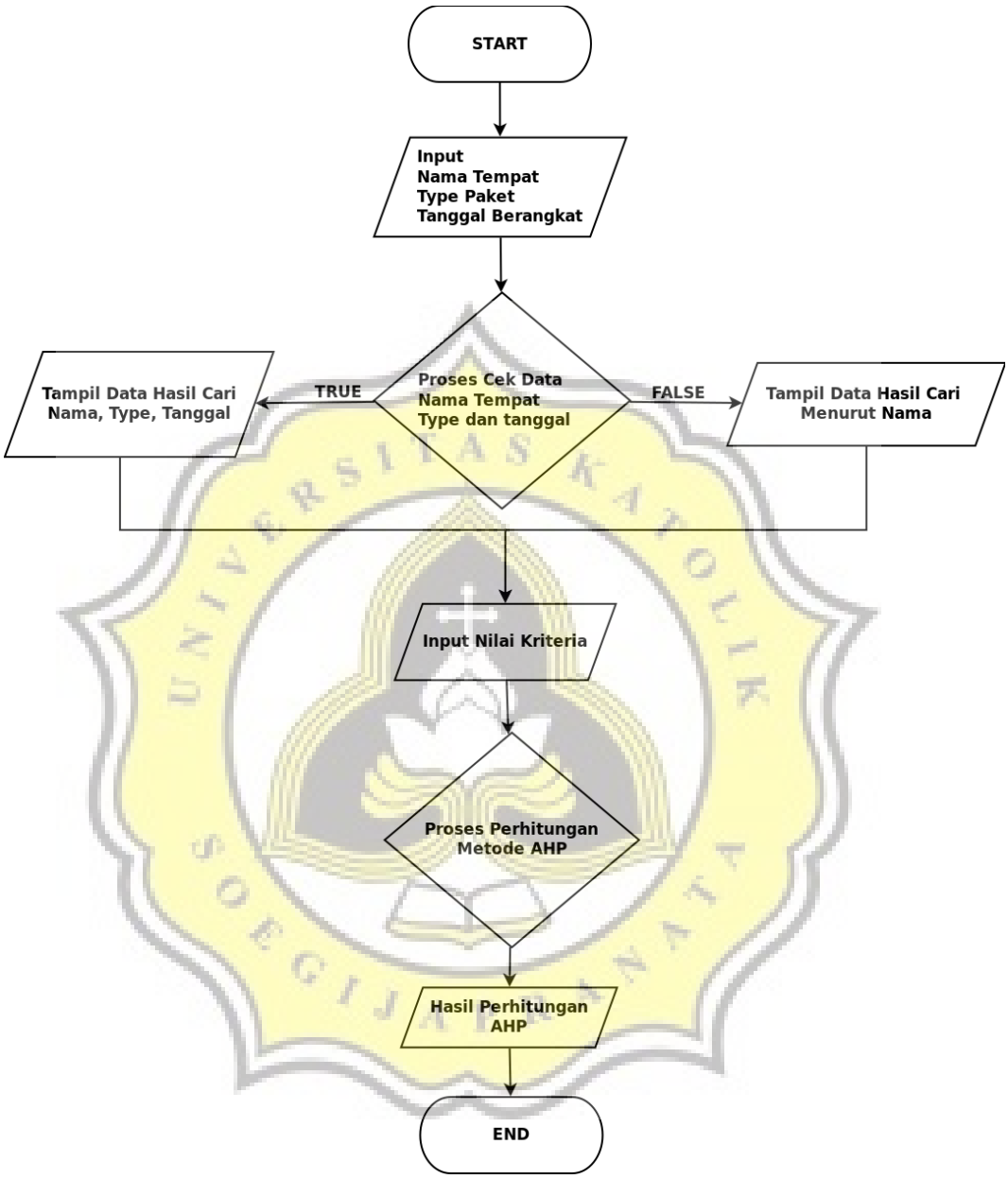

Illustration 4.1: Flowchart AHP

Flowchart explanation :

1. User input the name of the desired place user, package type and departure date.
2. Data from user input will be match with existing data in CSV.

3. When all data inputted matces the existing data in CSV, then matching data is displayed.
4. If the data entered does not match the CSV data or only the name of the place that matches the data still displayed based on the place name.
5. After the data searched then the user then input the criteria value.
6. The process of calculating the criteria by making the criterion value into a 2 dimensional matrix.
7. After all the prcess is complete then found the result of recommendation according to calculation from AHP method.