CHAPTER 3
RESEARCH METHODOLOGY

3.1 Research Methodology

The proposed system will be created statistic applications of basic commodities price based on Android. The steps are carried out in the research will be shown as follows.

1. Collecting Data

The data to be used in this research are data about basic commodities price. These commodities are cooking oil bulk, beef, broiler meat, eggs, wheat flour, soybean imports, soybeans local, medium-quality rice, sugar, red pepper curls, chili regular red and red onion. Data is obtained from the trade ministry source website (http://www.kemendag.go.id/id/economic-profile/prices/national-price-table). The data sample is shown as in table 3.1.

Table 3.1: Sample Data

No	Komoditas	Unit	Periode: Maret 2017							
			1	2	3	6	7	8	9	10
1	Minyak Goreng Curah	Rp / kg	12,050	12,040	12,040	12,060	12,020	12,000	12,000	11,990
2	Daging Sapi	Rp / kg	115,550	115,450	115,300	114,500	114,620	114,740	114,740	114,590
3	Daging Ayam Broiler	Rp / kg	29,500	29,410	29,380	29,190	29,090	28,790	28,670	28,670

2. Application Design

Design in this project contains use case diagram and flowchart diagram. Use case diagram will represent the interaction between user and application on the user's view. The interaction between user and application consist of three use cases, the first user can view data as a table, the second user can view data about basic commodities as a statistical calculation (mean, median, mode), the third user

can view data as a chart. The flowchart will represent a sequence of steps to perform a process from connection to display data as a chart.

3. Development

Development of monitoring basic commodities prices application using a Java-based Android programming language with Android Studio. Development will implement a code of process includes connecting the application to the website, load data retrieved, insert data to Linked List, shown data as a table, statistical calculation and show data as a chart. The result of the development is application monitoring basic commodities prices that can run on Android smartphone.

4. Testing and Evaluation

The testing process was conducted to determine the failure or error in programming languages writes in this project. The tool used to check for determining failure or error is Android Studio Build. Evaluation will seek whether software fit for the needs or not. Android smartphone used to evaluation process by installing the application monitoring basic commodities prices.