Systems and Services Pattern Descriptions at Daycare

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Abstract--- *A daycare is a service provided when a woman wants to leave their children. However, their doubts and trusts about a daycare are one of the important factors in choosing it. Thus, the daycare services should be able to address the concerns that exist today. One of the services provided is the ease in using these services, with the existence of information technology in the form of a child care information system as one of the solutions. Child Care Information System is a system that can manage child registration functions, child service management, as well as payment for services used. If these 3 functions can be managed properly, then it certainly helps daycare in fostering a great sense of trust from mothers / women in entrusting their children. The application of a child care information system can help with problems faced by housewives or working women and the daycare managers.*

Index Terms: Care, Child, Information, Place, System.

I. INTRODUCTION

It is natural for a woman to be a housewife; it is what a woman must live with. Moreover, to face today's' life, many women are now also serves as a career woman. Besides being a career woman, they are also required to carry out their obligations as housewives who take care of their husbands and children, especially to take care of children, must be willing to sacrifice a lot of time. Thus, many women in Indonesia perform dual function tasks, not only as a housewife but also as a career woman in order to support the family economy [1].With the presence of women who have this dual function task, a service called daycare is made. Daycare is one of services in which there are education and parenting programs at the same time and social welfare for children from birth to six years of age. Providing services to children aged 0 - 6 years that parents have to leave because of work or other obstacles and provide services related to the fulfilment of children's rights to grow and develop, get protection and love, and the right to participate in the social environment is the purpose of daycare. Thus, a daycare should answer all these objectives, various child care facilities are important factors that must be considered such as eating patterns, resting patterns, play patterns, learning patterns and other patterns. A trustworthy daycare must be able to support the growth and development aspects that must be considered by any parent, namely cognitive, language, emotional, social and motor development[2].

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Overview of the technological situation applied by the Little Bee Daycare & Preschool Jakarta daycare center located at Jalan Bromo 19, Guntur Kuningan, South Jakarta (near Imperium Tower Kuningan) is discussed in this research. The problems that occur are the existence of incomplete information for the registration data of the entrusted child, and the use of any facilities that should be used, frequent exchange of data among entrusted children, thus, the parents often complained about it. From these problems, Little Bee Daycare & Preschool is one of the daycare centers which can be applied to child care information systems. The Information System is the one that helps in managing the registration process, facilities and payments

II. LITERATURE REVIEW

Toddler
Toddler is a general term for children aged 1-3 years (toddlers).When they are toddlers, children are still fully dependent on parents for important activities, such as bathing, urinating and eating. The development of speaking and walking has improved but other abilities are still limited [3]
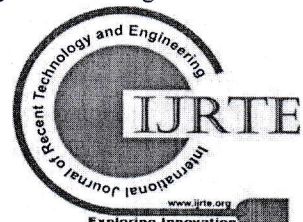
Preschool.
Preschool is a good time for children to become interested in counting, sorting, building shapes, measuring, and estimating and preschoolers (3-5 years) [4].

Early childhood
Early childhood is a group of children who are in a unique process of growth and development, in the sense of having patterns of growth and development (fine and rough motor coordination), intelligence (thinking, creativity, intelligence, motivation, spiritual intelligence), Indonesian social emotional language, language and communication specifically for growth and development [5].

Daycare
Daycare is a means of parenting in groups, usually carried out during working hours. Daycare is an organized effort to care for children outside their homes for several hours on a day when parental care is not fully implemented. in this

case, the notion of daycare is only a complement to parental care and not as a substitute for parental care [6]

Full Day System
The Full Day system is a type of service that provides full-time child care services, based on the length of time the child is entrusted [7].

III. METHODS

The research method uses prototype development method [8]. A descriptive method is used in describing the state of the technology or system applied by LittleBee Daycare & Preschool daycare center. Descriptive method is to describe all existing data systematically and then analyzed and compared based on the ongoing reality and then provides problem solving. The following is an illustration of the results of the research conducted in Figure 1.
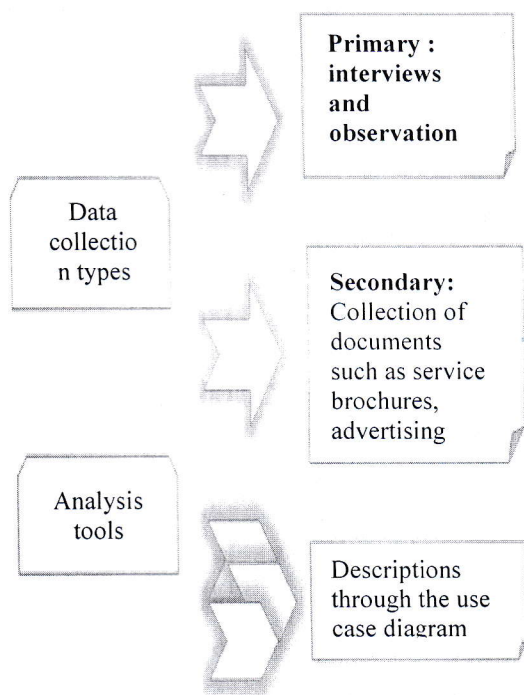

Figure 1. Research Methods

IV. DISCUSSION

The results and analysis is illustrated by describing the procedure, program activities performed, and daycare services process.

A. Description of child care system that runs on Little Bee Daycare & Preschool.
The following procedures or processes are running as follows:
1. Consumers / toddler mothers come to visit the daycare center.

2. They have to register first if it was their first time visiting.
3. If registered, then the consumers only choose the package based on a certain period: daily, weekly or monthly.
4. If they have registered and selected a daycare package, then the child can be entrusted. The nurse starts taking the child or toddler who is entrusted and follows the programs provided by daycare services

Use Case Diagram
Use case diagram is shown in figure 2. The used description uses the object approach method [9].
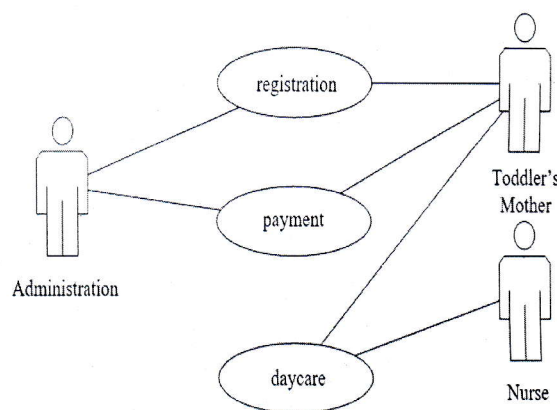

Figure 2. Use Case Diagram

Component:
The components involved in the system are running as follows:
1. Administration
   Administration is the person involved or the person who takes care of all activities in data processing such as recording, correspondence, light bookkeeping, typing, agendas, and so on that are technical in nature. The administrative part of the running system is the person in charge of handling registration, payment, processing of child care data reports [10-12].
2. Registration
   Registration is the process of managing activities. Activities carried out at daycare centers are the process of managing the list of children who are entrusted with whatever facilities the child is entrusted with[13-15].
3. Payment
   Payment is an activity process in the form of the value of money paid for the purchase or use of goods / services. Payments made in this daycare facility are the value of the rupiah paid for services used by the deposited child, which is paid in cash at the time of registration based on the facilities used [16-18].
4. Toddler's Mother
   Toddler's Mother is a business actor or person who uses child services. The user of this service is not specifically for mothers who have children, but this facility is used by all levels of society in general who want to use child services [19-21].

5. Nurse

Nurse is a person who is in charge or an officer / employee in a child service place to take care of children based on the schedule and facilities that have been paid by service users, namely the community [22-24].

B. Description of the facilities used
a. Daycare Program.

Table 1. Class-based programs

No	Class Name	Age
1	Love-Baby Class	3-15 months
2	Laugh-Toddler Class	16-30 months
3	Learn-Preschool	(>30 months)

Source: Little Bee Daycare [25]

b. Activities performed
a) Love-Baby Class

Table 2. The Baby Class Program Activities

Activity Time	Activity	Information
07.30-08.30	Breakfast	Healthy food (5 times: breakfast, morning snack, lunch, afternoon snack, lunch)
08.30-09.00	Drink milk + sunbathing	Providing breast milk storage and sunbathing areas
09.00-10.00	Sleep	Beds with head pillows, blankets and sheets replaced once a week.
10.00-11.00	Morning snack + gross motor program	Playground equipment is available to train gross motor and fine motor
11.00-11.30	Lunch	Nutritious healthy food complete with eating utensils + baby seats (bouncers)
11.30-12.00	Gross motor program	Program to train child development according to age
12.00-12.30	Sleep Preparation	Changing pajamas and pampers
12.30-14.00	Sleep	Comfortable beds, pillows and blankets are provided personally.
14.00-14.30	Afternoon snack + fine motor program	Playground equipment is available to train gross motor and fine motor
14.30-15.30	Fine motor program	Program to train child development according to age
15.30-16.30	Bath	Afternoon bath with warm water and baby massage provided for children
16.30-17.00	Afternoon meal	Nutritious healthy food with daily menu details
17.00-17.30	Waiting to be picked up	While playing, the children wait to be picked up

b) Toddler Class

c) Preschool

Table 3. The Toddler Class Program Activities

Activity Time	Activity	Information
10.00-10.05	Preparation	Line up and check the tidiness of clothes
10.05-10.15	Opening	1. Deliver greetings 2. Introducing yourself (absenteeism) 3. In an interesting way the teacher will explain what will be learned today and the purpose for the child
10.15-10.45	Gross Motor Development	Gross Motor Development is combined with cognitive, language, social and moral development
10.45-11.00	Cognitive Development	Child Cognitive Development (recognizing letters and numbers) by playing method
11.00-11.20	Fine Motor Development	Fine Motor Development is integrated with language development (including introducing English terms), social and moral by doing activities
11.20-11.30	Closing	1. Repeating what has been learned 2. Greetings 3. March out (for lunch)

Table 4. The Preschool Class Program Activities

Activity Time	Activity	Information
07.30-08.00	Breakfast	Healthy food (5 times: breakfast, morning snack, lunch, afternoon snack, lunch)
08.00-09.30	Free play	Large and safe play area
09.30-10.00	Morning Snack	Nutritious healthy food with daily menu details
10.00-10.30	Circle Time (Gross Motor)	Gross motor stimulation is performed in a large playing area
10.30-11.00	Activity (Fine Motor)	Fine motor stimulation is delivered in making children's activities in accordance with daily and monthly themes
11.00-11.30	Free play waiting for lunch	Providing various gross and fine motor games for children
11.30-12.00	Lunch	Nutritious healthy food with daily menu details
12.00-12.30	Preparation nap	Changing pajamas and pampers
12.30-14.30	Nap	Comfortable beds, pillows and blankets are provided personally
14.30-15.30	Bath	Afternoon bath with warm water provided for children
15.30-16.00	Lunch + snack	Nutritious healthy food with daily menu details

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16.30-17.30	Play, waiting to be picked up	While playing, the child waits to be picked up

d) Package and Facility Prices

Table 5. The Package and Facility Prices

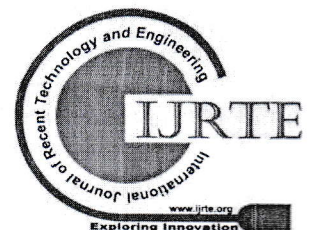| Class	Prices	Facilities
Baby Class Age 3-15 months 07.30-17.30	1. Daily Fee IDR 500.000 2. Admin Fee IDR 2.000.000 (Paid 1x, if Off is valid for 3 months) 3. Monthly IDR 4.000.000 (10 hours: 07.00-17.00 07.30-17.30 08.00-18.00) 4. Monthly ++ IDR 4.300.000 (10.5 hours). 5. Overtime IDR 50.000 / hour (Before 07:30 | 17.30 - 18.30) IDR 80.000 / hour (18.30 - 19.30) IDR 100.000 / hour (OVER 19.30) 6. Morning bath IDR 250.000 / month.	1. Healthy food, 5x breakfast, morning snack, lunch, afternoon snack, dinner 2. Sleeping equipment mattresses, sheets, pillows, pillowcases, blankets provided for each child and replaced once a week 3. Feeding equipment including special baby seats (bouncers) 4. Playground equipment to train gross motor and fine motor 5. Program to train child development according to age 6. Breast milk Storage 7. Baby massage 8. Baby sun bath 9. CCTV Streaming from 16 CCTV points that shows the entire daycare room (for each parent get 2 CCTV Streaming username) 10. Comprehensive Daily Report 11. Measurement of height and weight once a week 12. Doctor's visit to conduct a medical check-up as a whole (once every 3 months) 13. Examination report on child development (including: gross motor, fine motor, cognitive, language, social and independence) 14. Teachers and caregivers who are trained and loving
Toddler Class Age 16-30 months 07.30-17.30	1. Daily Fee IDR 500,000 2. Admin Fee IDR 2,000,000 (Paid 1x, if OFF is valid for 3 months) 3. Monthly IDR 3,500,000 (10 hours: 07.00-17.00 | 07.30-17.30 | 08.00-18.00) 4. Monthly ++ IDR 3,800,000 (10.5 hours) 5. Overtime IDR 50,000 / hour (Before 07:30 | 17.30 - 18.30) IDR 80,000 / hour (18.30 - 19.30) IDR 100,000 / hour (OVER 19.30) 6. Morning bath IDR 250,000 / month	1. Healthy food, 5x breakfast, morning snack, lunch, afternoon snack, dinner 2. Sleeping equipment mattresses, sheets, pillows, pillowcases, blankets provided for each child and replaced once a week 3. Feeding equipment including special baby seats (bouncers) 4. Playground equipment to train gross motor and fine motor 5. Program to train child development guided by trained teachers (if the child is more than 30 months old and does not attend the Preschool program, all material is still provided for children aged 16-30 months) 6. Breast milk Storage 7. Baby massage 8. Baby sun bath 9. CCTV Streaming from 16 CCTV points that shows the entire daycare room (for each parent get 2 CCTV Streaming username) • Comprehensive Daily Report • Measurement of height and weight once a week • Doctor's visit to conduct a medical check-up as a whole (once every 3 months) • Examination report on child development (including: gross motor, fine motor, cognitive, language, social and independence) • Teachers and caregivers who are trained and loving
Preschool Age above 30 months 07.30-17.30)	1. Admin Fee IDR 2,000,000. It includes a uniform fee in 1 year, which consists of: types of uniforms, with superiors and subordinates 2. Monthly Fee IDR 500,000	For children who participate in the Daycare Program: 1. On Monday, Wednesday, Friday will take part in the Daycare Program from 07:30 to 10:00, continued at 11:30 - 17:30 2. For Tuesdays and Thursdays, Circle Time activities will join Daycare, but for Fine Motor activities will be in Preschool classes with different activity material 3. Especially for Monday, Wednesday and Friday, child development information (gross, fine, language, social motor) is not filled in because it follows the Weekly Preschool Report 4. Especially on Tuesday and Thursday, will get a complete Daily Report

V. IMPLEMENTATION

So the daycare center at Little Bee has implemented 4 principles, in accordance with the objectives of the Directorate of Early Childhood Education, Ministry of Education and Culture of the Republic of Indonesia [26]. Basic Philosophy of Existence Child care centers to support the realization of quality, advanced, independent, early childhood democracy and achievement with the following formula:

a. Forging.

This daycare center has implemented activities to produce good physical quality from an early age with activities such as paying attention to diet, the

existence of sports activities given to children, and other activities that support physical activity in increasing physical strength, endurance and high discipline.

b. Sharpen

In this daycare center, a program is supported to

support various activities, namely available play equipment to train gross motor skills and fine motor skills so as to stimulate imagination, children's creativity to do, explore, manipulate and find innovation in accordance with children's interests and learning styles. Other activities are game programs to train children's development according to age.

c. Compassion

It is a guarantee of fulfilling the needs of children to get protection from influences that can be detrimental to growth and development. For example rough treatment, physical, mental and psychological abuse. All activities can be reached with a strict security system through CCTV at various points in Little Bee.

d. Foster Care

Through habituation that is done consistently to shape the behavior and quality of the personality and identity of the child in terms of :

1. Integrity of faith and piety;
2. Patriotism, nationalism and pioneering;
3. A sense of responsibility, knight spirit, and sportsmanship
4. Soul togetherness, transition, and test resistance
5. Responsive spirit (mastery of science and technology) critical power and idealism;
6. Optimistic and risk-taking; entrepreneurial, creative and professional spirit.

Based on the facilities provided to children, a place that accommodates children in Little Bee can be given a full day system. Where the full day system is in accordance with the needs and development of children. Where there are additional programs in activities that support children's development. While this full-day system has been covered by important components, among others[7] :

1. Care, this activity is based on how the teacher / caregiver carries out care for the child from the start of the child to the time of going home. Each program at Little Bee will be controlled by each nurse assigned.
2. Education, activities in this program are playing. So children are given education using methods or how to play. Activities at Little Bee are implemented in the program for each age for the children who have been entrusted.
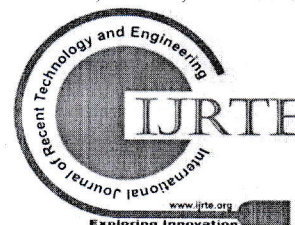
3. Nutrition, nutrition program services carried out Daycare by providing nutritional intake for each food and drink given to the child. In the morning, afternoon and home. There is a healthy food program, 5 times |breakfast, morning snack, lunch, afternoon snack, dinner.
4. Health, health care programs at the TPA are carried out on child health care. Doctor's health check for a comprehensive medical examination (3 months)
5. The role of educators is important because educators must meet the minimum standards of educators and have good quality.
6. Infrastructure facilities become supporting factors for children's growth and development, when children play or do activities must have appropriate facilities and are safe enough for children.

VI. CONCLUSION AND SUGGESTION

Childcare centers located in Little Bee Daycare & Preschool Jakarta already have programs or activities that support the growth of children who are entrusted, it can be seen from the class division based on age. Thus, it becomes one of the recommendations for a daycare that is good enough for parents who have toddlers. Whereas, the registration process, payment and child care can be applied to an integrated system, so that the resulting accurate and reliable information reports.

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