

Problem Solving (A3) Report

Topic: Newborn Nutrition Tracking

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Identify the Problem:

- Parents have a hard time tracking the nutrition of newborn babies.
- Many parents track this information in a sheet of paper handed to them by their doctors, which can be a tedious and time-consuming task.

Set the Target:

- The target is to create an application that can keep track of newborn baby's daily nutrition and suggests to the parents the appropriate number of daily servings and serving sizes considering different factors.
- In addition, the application should give reminders to the mother for pumping and feeding the baby.

Analyze the Causes:

- Parents are usually overwhelmed by the amount of work that having a newborn baby carries.
- Parents have to keep track of the amount of milk their babies are eating between formula and breastmilk every day.
- The nutrition plans for babies are specific to every child making it harder for parents to understand the optimal number of daily servings and serving sizes to give their children.

Propose and Implement Countermeasures:

- We want to create a tracker for parents to log the ounces of breast milk and formula milk their babies are drinking daily. We can suggest daily servings and serving size based on the babies age and weight.
- Work on a UI where the data will be logged. It should include a calendar view.
- Develop password and username system.
- The application should give reminders to the mother for pumping and feeding the baby.
- Work on the algorithms that record the data and provide results based on the following table.

HOW TO FEED YOUR BABY STEP-BY-STEP					
Every baby is very special. Don't worry if your baby eats a little more or less than this guide suggests. In fact, this is perfectly normal. The suggested serving sizes are only guidelines to help you get started.					
AGE	FOOD GROUP	FOODS	DAILY SERVINGS	SUGGESTED SERVING SIZE	FEEDING TIPS
0-4 Months	Milk	Breast Milk or Formula* 0-1 months 1-2 months 2-3 months 3-4 months	On demand 6-8 5-7 4-7 4-6	2-5 ounces 3-6 ounces 4-7 ounces 6-8 ounces	<ul style="list-style-type: none">• Nurse as long and as often as your baby wants - every 1-1/2 to 2 hours is okay.• Nurse baby at least 10-20 minutes on each breast.• Six wet diapers a day is a good sign that your baby is getting enough to eat.• There's no need to force your baby to finish a bottle.• Putting baby to bed with a bottle can cause choking and baby bottle tooth decay.• Heating formula in the microwave is not recommended as milk may heat unevenly and burn your baby's mouth.

Check/Evaluate:

- By keeping track of the baby's nutrition and suggesting servings, the parents are able to fulfill correctly their baby's needs.
- By providing reminders for pumping and breastfeeding, we are helping the mother be more organized and be able to plan ahead.

Act and/or Standardize

- The nutrition could also be affected by other factors including the frequency of the baby's diaper change. We could keep adding new parameters into consideration to make more accurate predictions.
- Later on, the recorded data could be used to optimize our algorithms and update our system.