



ECE PARIS
ÉCOLE D'INGÉNIEURS

Creation of a J2EE Web application for a nursery

Advanced Java Course – 4th engineering year

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(*) image origine: <http://ashgrovenurseryschool.co.uk/settling-in-time/>

In order to facilitate the administrative tasks in a nursery, we want to create a Web application providing the following operations. This Web application should be used by many nurseries.

I) Creation of the family contracts:

1. a family can have one or more children. The nursery creates a contract per child
2. a child is considered as a baby if he has less than 18 months
3. a child can be subscribed at the nursery for a regular contract or a temporary contract or both of them.
4. a contract has a date of beginning and a date of end
5. in a regular contract or a temporary contract, a reservation of a place at a nursery per day should be for a half day (only in the morning from 9am to 1 pm or in the afternoon from 1 pm to 5pm) or for a full day (from 9 am to 5 pm)
6. per half day, the number of babies in the nursery shouldn't exceed 5 and the number of children shouldn't exceed 20
7. in a regular contract, the child is present at the nursery for maximum two days per Week (for example two full days or four half-days). These two days are always the same.
8. in a temporary contract, the child is present on demand if a place is available. There is no limitation in such a contract: for example the child could be present all the week at the nursery if it is possible
9. a regular contract can specify the days or vacation periods during which the child will be absent
10. the contract should specify the phone number and email of father/mother or any other responsible person
11. the contract should specify the price per hour of childcare
12. the nursery can modify or delete a contract

II) Reservation in a temporary contract

1. the nursery can check if there is a baby place or a child place for a specific half-day
2. the nursery can add a reservation for a child on a half-day
3. the reservation of a full day should be done for the morning half-day and the afternoon half-day
4. the nursery can cancel a reservation

III) Daily operations

1. the nursery can see the list of children who should be present today or at a specific day
2. the nursery can check the absent children
3. the nursery can check a justified absence for a child at a specific day if he has a medical proof
4. the nursery can fix an off day (or half-day) during which it is not possible to accept children. This day could be any day in the calendar
5. if an off day was fixed after making contracts and so it is expected to admit some children that day, these children should be automatically checked as absent with justification

IV) Invoice generation

1. At the end of each month, the nursery generate an invoice per contract by considering the number of hours the child/baby passed in the nursery. All planned hours in a regular contract or a temporary contract should be considered in except if the child had a justified

absence.

2. The generated facture should be in a pdf form