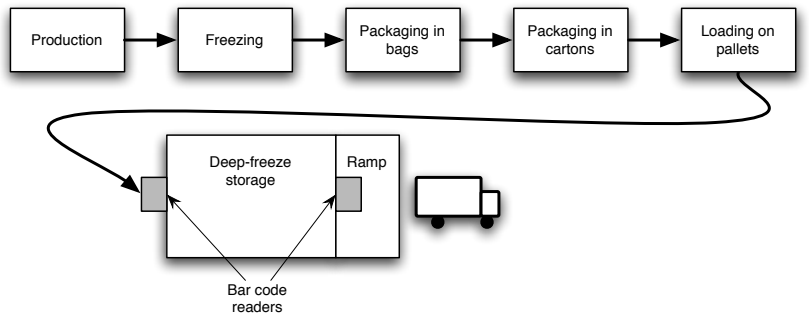
Project, Krusty Kookies

- 2–3 people per group. E-mail me if you need a partner.
- Develop a database (including a graphical user interface) for a bakery.
- Model the database, implement it, implement the interface.
- You may hand in your E/R model and relational model for me to check. Do that! NOTE: I will maybe have reception times when you can come and show your models, instead of e-mailing them. Check the course homepage later!
- Write a report, hand it in no later than Monday, March 31st.

Requirements

- The requirements are (deliberately) unclear in places, and spread out over the project description.
- It is part of the assignment to clarify the requirements and to make reasonable assumptions.

Production, KKS AB



Modeling

E/R:

- Develop an E/R model, preferably using UML notation.
- Check that you, using the entities and relationships in your model, can answer common queries.
- Think: a cookie has many ingredients, each ingredient can be in many cookies.
- Think more: an order may be for many kinds of cookies, each with its own number of pallets.

Relations:

- Follow the rules when you translate into relations.
- Indicate primary keys and foreign keys.
- Think about normalization (usually not a problem here).
- Update the E/R diagram if you modify the relations.

Implementation

First:

- Implement the relations in SQL.
- Check (in `mysql` or other client) that you can perform the desired updates and queries. If they don't work here they won't work in your GUI.

Then:

- Write a GUI. It should be easy to use but need not be elegant or beautiful.
- "Easy to use:" the user shouldn't have to remember information that is in the database. For example, when producing a pallet of cookies the user should have a list of cookie names to choose from, not have to enter the cookie name manually.

Implementation Alternatives

Absolute requirements:

- You must use "normal" SQL that you have written yourself.
- We must be able to test your system from our offices. You may also demonstrate your program on your own laptop.

Alternatives:

- Java, JDBC, server on Puccini (as in lab 3).
- PHP, server on Puccini (as in lab 4).
- Other database: PostgreSQL, Oracle, ...
- Other implementation language: C#, Perl, JSP, ASP, ...

Modified Requirements

- You must implement the entire database (cookies, recipes, pallets, orders, ...).
- Your system will not be connected to a bakery, so pallet production and order delivery will be simulated in the GUI.
- There will be three programs (views of the database): 1) raw materials and recipes, 2) production, blocking, and searching, 3) orders and deliveries.
- You only have to implement 2). The other tasks may be performed from `mysql` (or a similar client).
- In 2): the raw materials storage must be updated when a pallet is produced.
- The database must contain data so we can test your programs.

Report

- Write the report, preferably in English, follow the instructions.
- Submit the report:
  1. The report must be in PDF format. Write a README file (text) with instructions on how to test your system.
  2. E-mail these files to `eda216@cs.lth.se`. Subject line:

     ```
     krusty by id1 id2
     ```

  3. Include any other files that we need to test your system.