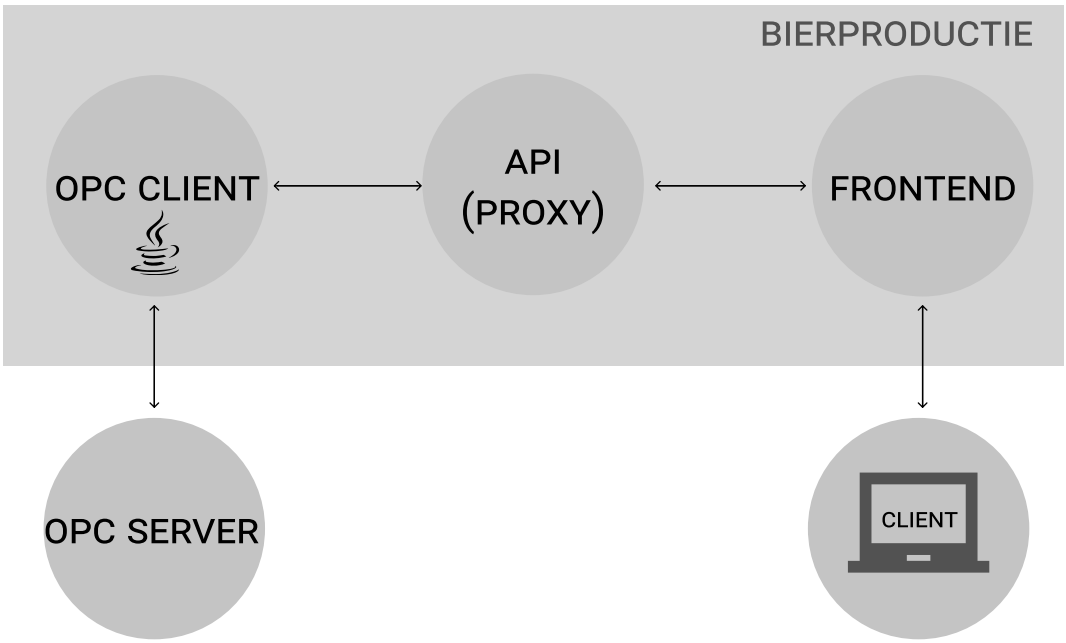
Bierproductie

A management system for brewing machines



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By signing this document, each group member confirms that everyone have participated equally to this project, and everyone is thus collectively responsible for the content of the report.

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6.1 Use Case analysis

6.1.1 Class Candidates

In order to find potential class candidates, every noun of the detailed Use Cases are found. These are potential candidates, and can be sorted to avoid duplicates and candidates that won't be turned into classes. Naturally, every potential class for the entire system will not be found, as this only reflects use cases. A potential class candidate such as MES (where Start and Stop functionality would otherwise be implemented) will not be reduced to a single class and is therefore not added to the list of class candidates.
The final list of classes, as well as a description of them, can be seen in table 1.

Class Candidate	**Attributes**	**Definition**
Batch	Id, type, product_amount (total, defect, acceptable), amount (time), state (current, history), OEE, production_speed,	A batch refers to a specific batch of products the brewery has made
Product	Id, type, Ingredients,	Product refers to the different options of beer to be produced
Ingredient	Name, id	An ingredient refers to a specific ingredient. Products contain a list of ingredients.

Table 1: Potential class candidates

6.1.2 UML Analysis Diagram

From the verb/noun analysis from the previous chapter, the UML analysis diagram seen in figure 1, can be generated. This diagram shows the classes and attributes found in the requirements from the project description.

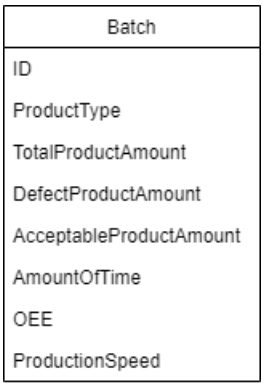

Figure 1: UML Analysis diagram

6.2 Use Case Realisation

6.2.1 Sequence Diagrams

6.2.2 Operation Contracts

6.2.3 Updated UML Class Diagram

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