



Aufgabe 6

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Chapter 1

Task 1

(a) Problem domain classes are classes used in the analysis class model to represent abstractions in the problem domain e.g. air pressure, transactions. Solution classes, on the other hand, represent abstractions in the solution domain that are introduced due to technical constraints e.g. buffer, database connection etc.

(b) A problem domain class would be e.g. the class Table because databases of this kind are mainly used to store tables from the problem domain. A solution domain class would be a network connection class that controls a network connection or a database class that stores data about a database.

(c) In the analysis phase class diagrams are used to model the domain, in the design phase class diagrams are used to get a shared understanding of the structure of the system within a developer team. In the implementation phase class diagrams are used to implement the system, the classes from the diagram are directly translated into code.

	Development Phase		
Aspect	Analysis	Draft	Implementation
<i>Intended Use</i>	to represent the structures in the application domain	to provide an overview of the structure of the system	implementation of the classes / provide information for the use of the classes
<i>Terminology</i>	that of the problem domain	that of the solution domain and the problem domain	that of the solution domain and the problem domain
<i>Class semantics</i>	classes are abstractions in the problem domain	classes are abstractions in the solution domain	classes are abstractions in the solution domain
<i>Association semantics</i>	represents the hierarchy of abstractions in the problem domain	Represents the inheritance of attributes and method by classes	Represents the inheritance of attributes and method by classes
<i>Detail level</i>	as high as necessary to model the domain well	low	high
<i>Target group</i>	domain experts, developers-analysts	developers-designers	developers, users of the system

Chapter 2

Task 2

(a) Solution:

Chapter 3

Task 3

(a) If actions are bounded to state transitions, their contents would be written onto the transition arrow, meaning that the activity that the arrow is depicting yields a state change. Whereas if the activity is depicted inside the state itself, means that no state change happens and/or the action itself gets activated when the machine enters the state.

(b) Solution:

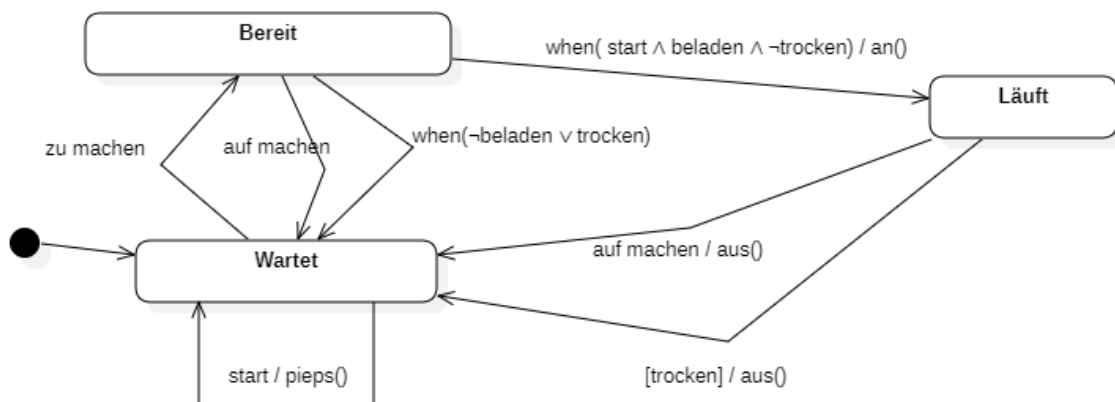


Figure 3.1