

# A Simulation App for Determining How Best to Cool a Beer Bottle

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## Abstract

The scope of this project was the creation of a short and comprehensive tutorial for the use of COMSOL® Application Builder for students at the University of Applied Sciences Bielefeld. The tutorial is based on the everyday life "problem" how to cool a beer bottle most efficiently. It shows how to use the most important features and tools (e.g. creating buttons, input fields, methods, generating diagrams, etc.) of the Application Builder in order to create quickly a fully functioning COMSOL App. Our tutorial enables students without experiences in simulation methods to quickly create their own COMSOL App during practical lab courses. Furthermore, the "Beer Bottle App" allows them to study basic thermodynamics and heat transfer effects with the help of an everyday life example.