#### Task 1)

# a) Why do we "need" cookies?

We need cookies to store persist information on the client side and identify client to make the communication stateful (because http is stateless).

## b) Why is it necessary to call session\_start() before any output is generated by PHP?

Um Cookie-basierte Sessions zu verwenden muss session\_start() aufgerufen werden, bevor irgend etwas an den Browser geschickt wird, weil dies Teil des Headers ist, und somit auch am Beginn ausgeführt werden muss.

### c) Cookies are "serialized". Explain this term.

The word "serialized" stands for key value pairs of states or configurations (like JSON, key-value pairs, ...) in a human readable style (you can easily transmit them over a medium, and get on the receiver side the values based on the keys).

## d) Name one example of a cookie that is deleted when the browser is closed?

A session cookie for instance? (login) The session will get destroyed after the browser is closed -> same for the cookie.