Excercise 1:

***Copy the code of the “Contacts, Calendar, Advert” XHR example fromBlackboard. These files are contained in Lec6 Examples.rar under Lectures on Canvas. In this example, amend the example so that it “works” synchronously. Run in IE and Firefox. How does this behaviour change (if at all)?Now, add a 3 seconds delay in display.php using “sleep(5);”. Run the example again and check whether there is an obvious change.***

***Answer:*** To make the program to run synchronously, the following code was amended.

*xHRObject*.open("GET", "display.php?id=" + Number(new *Date*) +"&value=" + data, false);

Where the false argument meant that the function was not asynchronous ie, synchronous.

On testing, There isn’t much of a difference and both functions work the same.

That is because the click speed is slower than the computation speed and function finishes executing before next button is clicked.

On adding sleep delay of 3 sec, when the function is asynchronous, although in theory we should get all the output in the order of button clicked, but since the xHRObject is initialized and reused, it overrides itself and we only get the output of final button clicked.

*xHRObject* = new XMLHttpRequest();

When the function is synchronous, the program waits for completion of current execution before proceeding to next one. Hence the 1st output is always the 1st button clicked.

However due to the better error handling of modern browsers, when 3 buttons are clicked one after another, some browsers like Chrome still record the click and process all functions one after another in the order of click. Alternatively, browser like firefox do not record any other button click after the 1st click until the process finishes.