FPGA assignment

The vgademo.zip file contains a WebPack project which uses an XSA-100 prototyping board to display a rectangular "ball" on a VGA monitor.

Starting with this code, implement a one- or two-player game of Breakout or Pong, *i.e.* a project which allows the user to interact with a "ball" on the screen.

You need to add logic necessary to display one or two "paddles" and to bounce the ball off of walls or other obstacles on the screen. You can also use the LED driver demo from class to keep score. Add switches to your prototyping board to allow one or two players to move their paddles laterally, or potentiometers and A/D converters if you prefer.

Resources: Please see the knowledge base for more materials.

Installer program for the free Xilinx WebPACK logic synthesis tools.

The in-class demo is in xsa_1.zip (the LED driver demo).