**1.3) Trade-Offs**

* **Functionality vs. Usability**

Headball is easy and simple game in which players can control the footballers with arrow keys, left, up and right, or w, a and d. This game appeals players from different range of ages. Game doesn’t so much functionalities and complexities in terms of playing; on the other hand, it appeals players with its simplicity. It can be easily understandable, playable. We have sacrificed more complex functionality; however, we get more funny game which doesn’t require lots of mental and physical efforts.

* **Flexibility vs. Efficiency**

We used open architecture (transparent layering) in which each layer can call operations from any layer. It provides run-time efficiency, while closed (opaque) architecture allows program to be more flexible and maintainable. We have sacrificed these features by choosing open architecture.

* **Performance vs. Portability**

We have chosen Java for implementing our program. Java is portable language which can work on any computer with Java Virtual Machine. Java language is also known by our entire group members; writing codes wrote in different programming language and merging them would be so hard and time consuming for us, so we chose Java to implement our program. However, Java brings also some disadvantages. For instance, JAVA does not have a good running time performance compared to other languages. Game will also have 2d graphics which allows game to be run by any computer with minimal requirements of hardware.