[](http://www.google.co.uk/url?sa=i&rct=j&q=BBC&source=images&cd=&cad=rja&docid=2Z5vM7jFzdHCuM&tbnid=Z7G5fsyh3vnNlM:&ved=0CAUQjRw&url=http://blogs.telegraph.co.uk/news/danielhannan/100062427/but-youre-meant-to-be-right-wing-couldnt-you-try-to-sound-a-bit-more-angry-and-stupid/&ei=dkEuUb3SL4je0QH-rIDIDQ&bvm=bv.42965579,d.d2k&psig=AFQjCNEzX5UaWedZ8gQSSdIXOst4eX5Elg&ust=1362072294221636)

**Software Engineer exercise**

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1. We're looking for people with a real passion for collaboratively creating great software. Please give an example of a software component you have designed and written from concept to deployment, outlining the steps you took. (1000 character limit)

*I will give a brief overview of the last project from college and details of my individual contribution to the deliverables. The Android App was my major contribution, which was my sole responsibility. During this time I worked in isolation to develop the app, and collaboratively to provide information and diagrams and also provided access to my php MyAdmin database for the website communication. This project has not only been a great learning experience for me in app development, but also in working as a team.*

*The Idea was to build a unique APP for android which could monitor workouts in the gym and also give feedback to the user in real-time. As such, we decided to create a mobile app which would help with the actions in the gym and also a website where more details can be found about nutrition and workouts, allowing the user to see the improvement in their exercises. My achievements were developing an app to collect information from the user, make calculations, and send that information after processing results and then save it on a database which is shared with the website where the user can view the information with more details.*

*In summary, my contribution towards the project was building the mobile app which communicates with a database, which will also be accessed via the website. I really wanted to be responsible for the mobile application development, as it was a new challenge, in which I had no prior experience. I felt that it would be very valuable learning for me and also make me more employable. I am in the process of making the app public on the Android market for free download as a follow-up to the project.*

1. Using the example that you provided above, tell us about a significant decision you made to solve a technical challenge. Give details of technologies that you chose and why you chose them. (1000 character limit)

*The application was designed to run on Android OS, as with it, it is possible to have a bit more freedom in terms of development. I used appinventor, which is software developed by Google, now maintained by the Massachusetts Institute of Technology (MIT). This software helps in the development of apps for android phones and also lets you simulate with a clear and easy interface, which is a big advantage when building an app with a user-friendly design. The biggest disadvantage is that I was a bit more limited in terms of a database, as on app inventor it is possible to use only a limited number of columns and lines, but it was not a big issue to build the app.*

*Using the phpMyAdmin, I created a database where the information was saved and retrieved by the mobile application. Also used a Wamp server so I could simulate and use my personal Pc as server to so realise the test of the application.*

1. Using the example that you provided above, tell us about how you ensured your software was fit for purpose and of high quality. What did you learn and what would you do differently next time to do a better job? (1000 character limit).

*The application was subject to a phase of testing of all scenarios for quality issues and subsequent debugging. User feedback was also obtained in order to improve the usability, appearance and functionality. For the future of the app, layout could still be further improved. Also it is desirable to develop the feedback process to show some graphics to make the application more dynamic. A big step in the app’s future is also use it on a digital wristband, making it more practical and as less cumbersome as possible. Upon launching on the Android market, further user ratings and feedback will be taken into account for continuous improvement.*