RFID for Discovery Space

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Our group was originally tasked with creating an exhibit for the Discovery Space children’s museum that would educate visitors to the uses of RFID technology. However, we were also asked to create a sign-in system that would help Discovery Space keep track of visitor data.

The group’s objectives were to create a minimum of two exhibits and a sign in system for the museum that would all be created to be stored on Raspberry Pi’s, as well as a user friendly database that the museum could use to change the images, texts and sounds that would be used with the exhibits. We were told that the object of the project was not to specifically educate children to the uses of RFIDs, and that we just needed to use the technology in our exhibits. Using suggestions from the museum and our sponsor, we created a Scavenger Hunt exhibit, as well as an exhibit to teach children about mixing colors and refraction. The Scavenger Hunt exhibit has flexible code that can take any number of inputs from the database, and allows the museum to easily change the text, pictures and sounds the exhibit uses. The color game does not use the database, as it does not require changes. The sign-in system stores visitor information on the database that can be easily extracted and charted for however the museum wishes to use them. The database can store member information, and is currently setup to store addresses, ages, names, and membership expiry dates.

We have also created a wiki for our project to document all the work we put into the project, so that if the museum wishes to move on with this project future groups will have ample documentation to do so. I’ve included images of the project on the second page.
Database Website, hosted @: http://default-environment-3gipmfcz4t.elasticbeanstalk.com/

Raspberry Pi model B+, which we stored the exhibits on.