|  |  |
| --- | --- |
| Submission Date | 2017-09-08 |
| Project Name | Parts Crib Database |
| Student Name | Ifeoluwa David Adese |
| Project website | ifeoluwadavid.github.io/PartsCribDatabase |
| My project will | serve as an online digital platform that enables students easily book/rent out required tools and equipment for their upcoming lab sessions and also help improve accountability for tools and equipment in the parts crib. |
| The database will store | Information on the various available tools and equipment in a categorized manner. It will also store information on student data like student names, student IDs, contact details and tools they have in possession. |
| The mobile device functionality will include | Student Sign Up, Ability to Search Equipment Available at the Crib in categories, Display Record of Equipment already booked by the student, Ability to set personal reminders for Returns as well as additional Administrative functionality, enabling Parts Crib Employees manually sign students up into the database, Enter Student Rentals and Update Student Returns, Display Record/Inventory/Database etc. |
| I will be collaborating with the following company/department | Humber College Parts Crib, Humber College Library, Creatron Inc. |
| My group in the winter semester will include | Mohand Ferawana and Tosin Ajayi |
| 50 word problem statement | the frequent loss of materials to unidentified students and the cost of man power used in the Parts Crib Services as well as cost of papers used on a daily basis as a result of students having to manually list and sign out the items needed before renting them out. |
| 100 words of background | Simply the collection of the necessary student data like student IDs, program of study, house address, phone number, postal code etc. and associating them with randomly generated barcode pins which are encrypted into the database for identification. These encrypted barcode pins will be the main information required to figure out which student has what equipment in possession. There might also be a need to implement the use of one or more databases. With one designed to hold necessary student information and possessions and the other to hold a categorical record of tools and equipment currently available in the parts crib. |
| Current product APA citation | Iron Tread Mobile App. (n.d.). Retrieved from https://play.google.com/store/apps/details?id=irontread.com.irontreadinspector&hl=en&rdid=irontread.com.irontreadinspector |
| Existing research IEEE paper APA citation | X. Wang, J. Liu and H. Yi, "Design of Multifunctional Barcode System Based on MEGA128L," 2011 International Conference on Control, Automation and Systems Engineering (CASE), Singapore, 2011, pp. 1-4. doi: 10.1109/ICCASE.2011.5997548. URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5997548&isnumber=5997514 |
| Brief description of planned purchases | Raspberry PI 3 Model, 15 Pin VGA Connector, USB Interfaced Barcode Reader/Scanner (Compatible with the Raspberry PI 3), USB Webcam. |
| Solution description | From an Administrative perspective, this project will be highly beneficial to the Parts Crib Employees in the sense that, it will heavily improve accountability for tools and equipment in the crib, just like a library keeping record of the books coming in and going out. From the user perspective, It can also help provide students with information on the kind of tools and equipment available at the parts crib, as well as keep a digital record of the parts crib tools they have in possession. |