I already implemented most of the programming assignment one and two pretty well, so I did not have to change much for those. For programming assignment one, I had to use php and javascript to connect the aws in order for my programming assignment four to work. To make that work I had to use sql and update my amazon aws. This part was not too bad because i just then had to connect it to my index so when i searched a certain basketball player it would show up the names correctly. After getting programming assignment one to work I worked on programming assignment three, since programming assignment two was pretty much done already, and I did not have to really change it up. The few things that I did modify we're making it so the underscores now showed up as a space instead, which helps a lot with clarity. Also had to make sure that my build trie now is able to check how many downloads in the wiki as well as the last link that was downloaded. I then needed that to be set to default on display for my index as well. After this was done I focused on getting my programming assignment three to work. I did horribly on this one so I had to change up lots of things. I needed to make sure that my table started to count properly, and would display on the dashboard. I had to also change the links to show the top 10 links and this time they actually refresh when i do change it up. I also made sure that my worker role works properly since in the past it would duplicate the things and that was an issue. I had to work on the cache after fixing up all of my programming assignment 3 and this part was actually quite difficult. I saw the initial code given by CK and that helped me alot but it was also very confusing because my Tuple was very different from CK’s so when i created a dictionary of tuple and date time it was very different because I was not sure how I should make use of a different tuple. I figured out i just had to make the tuple similar to mine and then my cache worked perfectly. Overall i thought that the assignment was pretty difficult and although not as hard as programming assignment 3 i still had a lot of trouble even with getting ads to work. I got rejected by adsense so i had to find another place to put ads that would instantly accept and luckily Daniel posted a link to a place that instantly accepts so I was able to get that to work. But initially trying to get adsense approved and then having to implement code was difficult to do.