***External Documentation***

**Reports**

From this part on, we had had more problems since it requires more knowledge and understanding of the libraries that Java offer, so our progress was slow, and took us time to develop the right code for every respectively division.

The report 1 was the easiest one, because we already possessed the knowledge of how to do it. The only thing that we researched was the ***date***, since it changes in every language, but once we figured it, we move along fast.

The following report (the second one) present a difficulty since we have to compare a date, , this obstacle kept us busy for a while and was kind of difficult to resolve. After a couple of hours, we figured out how to use the “**SimpleDateFormat**” in a more efficient way, after that, the rest of the work was a simple print of the comparison of dates.

The third report was the most difficult out of all, cause by time we compared dates, the “year” part gave us a problem, and we didn’t realize the problem that day and neither the next day so we call it off for a time in order to relax and have fresh ideas. It totally worked, because the only thing that we need was to plus one unite to the year, it operated well enough every test we ran on it.

The fourth one was kind of simple we only count the quantity of payments made in a single year and did the mate after that, and later print the result of the equation.

The report number 5 was completed in a successfully way due to the fact that knew exactly what and how to do the work so we browse the list and assigned every index thus the user knows what is displaying on the screen.

The last report was actually quit fast because the only “hard” thing to do was comparing the lists and make a sum with every employee’s salary and multiply it by the number of months that each project it’s going to last

**Swimming pool**

In this part of the program, it’s almost the same in every subdivision of it, in fact, the only thing that change is for whom will apply and the position of each label.

The first part that was created was the GUI and we inserted every image, gave them size (it will never change), a star position (so they will always be in the same place), later we started to code each button of the interface, the first one was the "beginning ", it was the most complex out of all because all the logic is in it. The first thing coded in there were some variables for counting the number of times that players won.

The third part of this program was the threads, in here are many awesome things that we found on the internet, but most important is the random because it gives the velocity to the swimmer and the part of the time because it shows how long does it take the swimmer to travel from one side to the other one. The same programming is used in every thread develop.

By that point, a lot of things worked as supposed, but now we had to make every label (swimmer) to follow a thread only if the checkbox was checked, we solved it with a simple if in each checkbox that was enough to make it worked well.

Lastly, we set the times of the competitors with a library called Calendar, that is made for timing, was kind of complicated but had to deal with this before so it helped.