Our program will be given one failed bit per 1000 bits. This means we are aiming to have a MTTF<2,000,000 votes this number was derived from the Project requirements sheet which states that “if a Database has a 1 in 500 bit corruption rate the MTTF will be MTTF<1,000,000 votes” using basic math i was able to double the number since our database will have half of the amount of errors. Comparing the database to a WD10EZEX hard drive our program will be given 10^11 bits failed per 10^14 bits. Given our program will read 1 GB per hour we can assume there are 1,000,000 bytes in a GB and 8 bits in a byte, meaning our program will read 70080000000 bits per year. Given the amount of bits per year we can figure out the failure rate by multiplying the read load(bits per year) against the error rate (70080000000 \* (10^11/10^14)). This gives us a failure rate of 70080000 bits/yr. Using the failure rate we can derive the Mean Time To Failure (MTTF) to be 1/λ = 1/70080000 = 0.000000014